ANNUAL REPORT
July 1, 2015 - June 30, 2016
University of Pittsburgh
School of Medicine
University of Pittsburgh Medical Center
Department of Medicine

Mark T. Gladwin MD
Jack D. Myers Professor and Chair

Christopher O’Donnell PhD
Executive Vice Chair, Academic Affairs
Michael Donahoe MD
Executive Vice Chair of Clinical Affairs

Annmarie Lyons MHA
Executive Administrator
Nichole Radulovich MEd CRA
Senior Administrator
Neil Karls MBA
Manager Finance
# TABLE OF CONTENTS

Chair Comments
Organization
Key Statistics

Table 1 – Admissions, Patient Days and Average Length of Stay
Table 2 – Outpatient Visits and Ancillary Tests
Table 3 – wRVU's, Clinical FTEs, and wRVU's per Clinical FTE
Table 4 – Clinical Revenue
Table 5 – Final Report of Financial Activity
Table 6 – Department Budget
Table 7 – Cost Research Expenditures
Table 8 – Direct Cost Research Expenditures by Type
Table 9 – Department Research Activity Summary
Table 10 – Educational Credit Units
Table 11 – U.S. News & World Report Rankings by Division
Table 12 – ASCI and AAP Membership by Division

Medical Education in the Department of Medicine

Division Reports
  Cardiology
  Endocrinology and Metabolism
  Gastroenterology, Hepatology and Nutrition
  General Internal Medicine
  Geriatric Medicine
  Hematology/Oncology
  Infectious Diseases
  Pulmonary, Allergy and Critical Care Medicine
  Renal-Electrolyte
  Rheumatology
  Vascular Medicine Institute

Acknowledgments
CHAIR COMMENTS

I am pleased to present this synopsis of the Department of Medicine's accomplishments from the past academic year. The 2015-2016 year has proven to be another period of exciting growth in basic and translational research as well as improvements in patient care and advancements in medical practice. The University of Pittsburgh is once again among the top 5 NIH-funded academic institutions, and UPMC is ranked No. 12 in the nation on the U.S. News & World Report Honor Roll of America’s Best Hospitals. This unique balance of research and clinical success positions our Department particularly well to translate scientific discovery to the bedside and to produce outstanding physicians and scientists from our strong training programs. Scientific advancements are at the forefront of the Department’s research, while quality, safety, and transformative medicine guide education and clinical care.

Over the past year, we have worked hard to innovatively and efficiently care for our patients by maintaining strong primary and specialty care programs and by focusing on novel care delivery models, including medical homes and expanded telemedicine services. From FY15 to FY16, we saw a 59% increase in the number of telemedicine visits, as our Department has successfully responded to the changing needs of the patient population. We earned improved Best Hospitals Specialty rankings in pulmonary disease, gastroenterology and GI surgery, diabetes and endocrinology, cancer, and cardiology and heart surgery. We have expanded our clinical operations to serve a larger area, with new primary care sites and specialist coordination as well as the continued growth of new models of care. Our faculty continue to lead initiatives across the health system to provide health care that is innovative, comprehensive, compassionate, and accessible, while adapting to new challenges and opportunities to serve.

On the education and training front, we remain focused on supporting the development of physician-scientists and training compassionate, innovative care providers. Nine of our ten divisions, as well as the Vascular Medicine Institute, have NIH T32 training awards, providing a sustainable framework for mentorship of pre- and post-doctoral research trainees. Our 2016 Department of Medicine Research Day had a record setting year with 275 submitted abstracts, drawing more than 500 attendees who viewed over 250 posters. This annual event highlights the research accomplishments of not only basic-research trainees, but that of clinical fellows as well. In terms of physician training, I am continually impressed by the outstanding quality of our residents and fellows, as this year brought another exciting match.

From a research perspective, the Department’s portfolio is quite robust, having received $117,152,509 in research funding for the year. As a department, we continue to influence and expand research activities at the laboratory, departmental, and institutional levels. We have created a vibrant PhD community to promote fundamental and translational science in our clinical divisions. We have successfully rebuilt the academic mission of the Division of Cardiology, recruiting new research faculty members, developing two new centers, and securing the Division’s first NIH T32 training award. Within our department and in conjunction with others at the University, we have created an incredible number of productive and transdisciplinary centers, focused on the microbiome, scleroderma, cardiovascular outcomes, and molecular imaging, to name a few. In addition, over the past year, we have created new and exciting research and training partnerships with the VA, opening doors for collaboration. We also negotiated a strategic alliance between Bayer and the University of Pittsburgh, representing a $6 million investment in clinical trials as well as a novel investigator-initiated research program as a future model for productive collaborations between the University of Pittsburgh and industry.

As Chair of the Department of Medicine, I am proud of the incredible work done by our faculty and staff as we make major strides forward in patient care, education, and research.

Mark T. Gladwin, MD
# KEY STATISTICS

## TABLE 1 – ADMISSIONS, PATIENT DAYS AND AVERAGE LENGTH OF STAY

**UNIVERSITY OF PITTSBURGH - DEPARTMENT OF MEDICINE**

Admissions, Patient Days and Average Length of Stay (ALOS) by Division  
Fiscal Years 2014 - 2016

<table>
<thead>
<tr>
<th></th>
<th>Admissions FY 03 YTD (Base Year)</th>
<th>Admissions FY 14 YTD</th>
<th>Admissions FY 15 YTD</th>
<th>Admissions FY 16 YTD</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Presbyterian, Shadyside and Montefiore Hospitals</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Endocrinology</td>
<td>171</td>
<td>13</td>
<td>47</td>
<td>41</td>
<td>-12.8%</td>
</tr>
<tr>
<td>Gastroenterology</td>
<td>1,080</td>
<td>496</td>
<td>569</td>
<td>506</td>
<td>-11.1%</td>
</tr>
<tr>
<td>General Medicine</td>
<td>4,343</td>
<td>8,732</td>
<td>9,990</td>
<td>10,265</td>
<td>2.8%</td>
</tr>
<tr>
<td>Geriatric Medicine</td>
<td>392</td>
<td>428</td>
<td>434</td>
<td>451</td>
<td>3.9%</td>
</tr>
<tr>
<td>Hematology / Oncology</td>
<td>247</td>
<td>1,159</td>
<td>1,220</td>
<td>1,264</td>
<td>3.6%</td>
</tr>
<tr>
<td>Infectious Disease</td>
<td>56</td>
<td>15</td>
<td>12</td>
<td>4</td>
<td>-66.7%</td>
</tr>
<tr>
<td>Pulmonary Medicine</td>
<td>799</td>
<td>2,860</td>
<td>2,894</td>
<td>2,629</td>
<td>-9.2%</td>
</tr>
<tr>
<td>Renal-Electrolyte</td>
<td>159</td>
<td>7</td>
<td>10</td>
<td>10</td>
<td>0.0%</td>
</tr>
<tr>
<td>Rheumatology</td>
<td>78</td>
<td>108</td>
<td>75</td>
<td>-</td>
<td>-100.0%</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>7,325</td>
<td>13,818</td>
<td>15,251</td>
<td>15,170</td>
<td>-0.5%</td>
</tr>
<tr>
<td><strong>All Other UPMC Hospitals</strong></td>
<td>-</td>
<td>3,313</td>
<td>1,721</td>
<td>1,218</td>
<td>-29.2%</td>
</tr>
<tr>
<td><strong>DOM Total</strong></td>
<td>7,325</td>
<td>17,131</td>
<td>16,972</td>
<td>16,388</td>
<td>-3.4%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Patient Days FY 03 YTD (Base Year)</th>
<th>Patient Days FY 14 YTD</th>
<th>Patient Days FY 15 YTD</th>
<th>Patient Days FY 16 YTD</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Presbyterian, Shadyside and Montefiore Hospitals</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Endocrinology</td>
<td>357</td>
<td>17</td>
<td>51</td>
<td>44</td>
<td>-13.7%</td>
</tr>
<tr>
<td>Gastroenterology</td>
<td>7,858</td>
<td>3,128</td>
<td>3,508</td>
<td>3,125</td>
<td>-10.9%</td>
</tr>
<tr>
<td>General Medicine</td>
<td>25,433</td>
<td>50,687</td>
<td>60,295</td>
<td>63,616</td>
<td>5.5%</td>
</tr>
<tr>
<td>Geriatric Medicine</td>
<td>1,948</td>
<td>1,972</td>
<td>1,976</td>
<td>1,935</td>
<td>-2.1%</td>
</tr>
<tr>
<td>Hematology / Oncology</td>
<td>1,184</td>
<td>6,308</td>
<td>8,027</td>
<td>7,251</td>
<td>-9.7%</td>
</tr>
<tr>
<td>Infectious Disease</td>
<td>324</td>
<td>31</td>
<td>47</td>
<td>9</td>
<td>-80.9%</td>
</tr>
<tr>
<td>Pulmonary Medicine</td>
<td>8,012</td>
<td>31,114</td>
<td>31,883</td>
<td>29,546</td>
<td>-7.3%</td>
</tr>
<tr>
<td>Renal-Electrolyte</td>
<td>1,158</td>
<td>73</td>
<td>42</td>
<td>49</td>
<td>16.7%</td>
</tr>
<tr>
<td>Rheumatology</td>
<td>381</td>
<td>646</td>
<td>518</td>
<td>-</td>
<td>-100.0%</td>
</tr>
<tr>
<td><strong>DOM Total</strong></td>
<td>46,655</td>
<td>93,976</td>
<td>106,347</td>
<td>105,575</td>
<td>-0.7%</td>
</tr>
</tbody>
</table>

Department of Medicine  
http://www.dom.pitt.edu
### ALOS FY 03 YTD (Base Year) | ALOS FY 14 YTD | ALOS FY 15 YTD | ALOS FY 16 YTD | % Change
--- | --- | --- | --- | ---
**Presbyterian, Shadyside and Montefiore Hospitals**
Endocrinology | 2.1 | 1.3 | 1.1 | 1.1 | 0.0%
Gastroenterology | 7.3 | 6.3 | 6.2 | 6.2 | 0.0%
General Medicine | 5.9 | 5.8 | 6.0 | 6.2 | 3.3%
Geriatric Medicine | 5.0 | 4.6 | 4.6 | 4.3 | -6.5%
Hematology / Oncology | 4.8 | 5.4 | 6.6 | 5.7 | -13.6%
Infectious Disease | 5.8 | 2.1 | 3.9 | 2.3 | -41.0%
Pulmonary Medicine | 10.0 | 10.9 | 11.0 | 11.2 | 1.8%
Renal-Electrolyte | 7.3 | 10.4 | 4.2 | 4.9 | 16.7%
Rheumatology | 4.9 | 6.0 | 6.9 | -100.0%
**DOM Total** | 6.4 | 6.8 | 7.0 | 7.0 | 0.0%

*Source:* UPMC Inpatient Statistics Database  
*Prepared by:* Department of Medicine Finance
### TABLE 2 – OUTPATIENT VISITS AND ANCILLARY TESTS

**UNIVERSITY OF PITTSBURGH - DEPARTMENT OF MEDICINE**

Admissions, Patient Days and Average Length of Stay (ALOS) by Division
Fiscal Years 2014 - 2016

<table>
<thead>
<tr>
<th>Division</th>
<th>FY 2003 Base Year</th>
<th>FY 2014</th>
<th>FY 2015</th>
<th>FY 2016</th>
<th>% Change</th>
<th>% Total Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endocrinology</td>
<td>8,144</td>
<td>23,436</td>
<td>25,287</td>
<td>25,463</td>
<td>0.7%</td>
<td>18.3%</td>
</tr>
<tr>
<td>Gastroenterology</td>
<td>18,545</td>
<td>32,346</td>
<td>35,652</td>
<td>31,947</td>
<td>-10.4%</td>
<td>25.3%</td>
</tr>
<tr>
<td>General Medicine</td>
<td>40,135</td>
<td>49,562</td>
<td>50,347</td>
<td>55,171</td>
<td>9.6%</td>
<td>8.5%</td>
</tr>
<tr>
<td>Geriatrics</td>
<td>15,477</td>
<td>7,100</td>
<td>7,448</td>
<td>7,429</td>
<td>-0.3%</td>
<td>10.8%</td>
</tr>
<tr>
<td>Hematology/Oncology</td>
<td>18,796</td>
<td>30,109</td>
<td>34,068</td>
<td>34,594</td>
<td>1.5%</td>
<td>10.8%</td>
</tr>
<tr>
<td>Infectious Diseases</td>
<td>1,982</td>
<td>7,741</td>
<td>7,635</td>
<td>7,939</td>
<td>4.0%</td>
<td>15.3%</td>
</tr>
<tr>
<td>Pulmonary</td>
<td>7,174</td>
<td>27,616</td>
<td>27,559</td>
<td>25,124</td>
<td>-8.8%</td>
<td>19.2%</td>
</tr>
<tr>
<td>Renal-Electrolyte</td>
<td>3,651</td>
<td>8,876</td>
<td>9,323</td>
<td>9,728</td>
<td>4.3%</td>
<td>8.5%</td>
</tr>
<tr>
<td>Rheumatology</td>
<td>6,468</td>
<td>54,826</td>
<td>51,702</td>
<td>44,808</td>
<td>-13.3%</td>
<td>10.8%</td>
</tr>
<tr>
<td><strong>DOM Totals</strong></td>
<td><strong>120,372</strong></td>
<td><strong>241,612</strong></td>
<td><strong>249,021</strong></td>
<td><strong>242,203</strong></td>
<td><strong>-2.7%</strong></td>
<td><strong>15.1%</strong></td>
</tr>
</tbody>
</table>

### Outpatient Visits: New and Consultation Only by Division

Fiscal Years 2014 - 2016

<table>
<thead>
<tr>
<th>Division</th>
<th>FY 2003 Base Year</th>
<th>FY 2014</th>
<th>FY 2015</th>
<th>FY 2016</th>
<th>% Change</th>
<th>% Total Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endocrinology</td>
<td>-</td>
<td>5,155</td>
<td>5,283</td>
<td>4,663</td>
<td>-11.7%</td>
<td>18.3%</td>
</tr>
<tr>
<td>Gastroenterology</td>
<td>-</td>
<td>8,161</td>
<td>8,723</td>
<td>8,071</td>
<td>-7.5%</td>
<td>25.3%</td>
</tr>
<tr>
<td>General Medicine</td>
<td>-</td>
<td>2,242</td>
<td>2,509</td>
<td>4,671</td>
<td>86.2%</td>
<td>8.5%</td>
</tr>
<tr>
<td>Geriatrics</td>
<td>-</td>
<td>604</td>
<td>692</td>
<td>801</td>
<td>15.8%</td>
<td>10.8%</td>
</tr>
<tr>
<td>Hematology/Oncology</td>
<td>-</td>
<td>3,624</td>
<td>3,980</td>
<td>3,780</td>
<td>-5.0%</td>
<td>10.9%</td>
</tr>
<tr>
<td>Infectious Diseases</td>
<td>-</td>
<td>986</td>
<td>1,051</td>
<td>1,214</td>
<td>15.5%</td>
<td>15.3%</td>
</tr>
<tr>
<td>Pulmonary</td>
<td>-</td>
<td>5,021</td>
<td>5,083</td>
<td>4,825</td>
<td>-5.1%</td>
<td>19.2%</td>
</tr>
<tr>
<td>Renal-Electrolyte</td>
<td>-</td>
<td>1,372</td>
<td>1,455</td>
<td>1,486</td>
<td>2.1%</td>
<td>15.3%</td>
</tr>
<tr>
<td>Rheumatology</td>
<td>-</td>
<td>9,280</td>
<td>8,461</td>
<td>7,094</td>
<td>-16.2%</td>
<td>15.8%</td>
</tr>
<tr>
<td><strong>DOM Totals</strong></td>
<td>-</td>
<td><strong>36,445</strong></td>
<td><strong>37,237</strong></td>
<td><strong>36,605</strong></td>
<td><strong>-1.7%</strong></td>
<td><strong>15.1%</strong></td>
</tr>
</tbody>
</table>
# TABLE 3 – wRVUs, CLINICAL FTEs AND wRVU’s PER CLINICAL FTE

**UNIVERSITY OF PITTSBURGH - DEPARTMENT OF MEDICINE**  
**wRVU’s by Division**  
**Fiscal Years 2014 - 2016**

<table>
<thead>
<tr>
<th>Division</th>
<th>FY 2004 (Base Year)</th>
<th>FY 2013</th>
<th>FY 2014</th>
<th>FY 2015</th>
<th>FY 2016</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endocrinology</td>
<td>16,535</td>
<td>63,734</td>
<td>67,181</td>
<td>75,532</td>
<td>72,840</td>
<td>-3.6%</td>
</tr>
<tr>
<td>Gastroenterology</td>
<td>90,388</td>
<td>237,271</td>
<td>238,990</td>
<td>232,518</td>
<td>214,810</td>
<td>-2.7%</td>
</tr>
<tr>
<td>General Medicine</td>
<td>82,422</td>
<td>224,972</td>
<td>237,934</td>
<td>247,577</td>
<td>265,690</td>
<td>4.1%</td>
</tr>
<tr>
<td>Geriatric Medicine</td>
<td>23,794</td>
<td>33,418</td>
<td>32,610</td>
<td>34,229</td>
<td>35,474</td>
<td>5.0%</td>
</tr>
<tr>
<td>Hematology/Oncology</td>
<td>46,281</td>
<td>101,024</td>
<td>87,681</td>
<td>93,090</td>
<td>87,303</td>
<td>6.2%</td>
</tr>
<tr>
<td>Infectious Diseases</td>
<td>17,087</td>
<td>65,116</td>
<td>65,750</td>
<td>60,964</td>
<td>60,559</td>
<td>-7.3%</td>
</tr>
<tr>
<td>Pulmonary</td>
<td>86,613</td>
<td>319,204</td>
<td>352,325</td>
<td>370,204</td>
<td>311,658</td>
<td>5.1%</td>
</tr>
<tr>
<td>Renal-Electrolyte</td>
<td>44,366</td>
<td>86,885</td>
<td>96,128</td>
<td>98,782</td>
<td>99,248</td>
<td>2.8%</td>
</tr>
<tr>
<td>Rheumatology</td>
<td>12,076</td>
<td>110,683</td>
<td>115,950</td>
<td>109,001</td>
<td>92,705</td>
<td>-6.0%</td>
</tr>
<tr>
<td><strong>DOM Totals</strong></td>
<td>419,562</td>
<td>1,242,307</td>
<td>1,294,549</td>
<td>1,321,897</td>
<td>1,240,287</td>
<td>2.1%</td>
</tr>
</tbody>
</table>

**Clinical Full Time Employees (FTEs) by Division (a)**  
**Fiscal Years 2014 - 2016**

<table>
<thead>
<tr>
<th>Division</th>
<th>FY 2013</th>
<th>FY 2014</th>
<th>FY 2015</th>
<th>FY 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endocrinology</td>
<td>11.0</td>
<td>11.2</td>
<td>12.5</td>
<td>11.8</td>
</tr>
<tr>
<td>Gastroenterology</td>
<td>27.7</td>
<td>26.6</td>
<td>28.1</td>
<td>23.8</td>
</tr>
<tr>
<td>General Medicine</td>
<td>58.2</td>
<td>57.3</td>
<td>60.8</td>
<td>61.0</td>
</tr>
<tr>
<td>Geriatric Medicine</td>
<td>8.0</td>
<td>7.5</td>
<td>8.0</td>
<td>7.4</td>
</tr>
<tr>
<td>Hematology/Oncology</td>
<td>14.8</td>
<td>13.9</td>
<td>14.0</td>
<td>12.7</td>
</tr>
<tr>
<td>Infectious Diseases</td>
<td>10.6</td>
<td>12.0</td>
<td>8.9</td>
<td>11.7</td>
</tr>
<tr>
<td>Pulmonary</td>
<td>36.8</td>
<td>46.8</td>
<td>51.5</td>
<td>38.9</td>
</tr>
<tr>
<td>Renal-Electrolyte</td>
<td>12.7</td>
<td>13.2</td>
<td>14.1</td>
<td>8.3</td>
</tr>
<tr>
<td>Rheumatology</td>
<td>19.5</td>
<td>20.2</td>
<td>17.0</td>
<td>15.1</td>
</tr>
<tr>
<td><strong>DOM Totals</strong></td>
<td>199.3</td>
<td>208.7</td>
<td>215.1</td>
<td>190.7</td>
</tr>
</tbody>
</table>

(a) per Division approved incentive file
wRVU's per Clinical FTE by Division
Fiscal Years 2014 - 2016

<table>
<thead>
<tr>
<th>Division</th>
<th>FY 2008</th>
<th>FY 2014</th>
<th>FY 2015</th>
<th>FY 2016</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endocrinology</td>
<td>6,012</td>
<td>6,011</td>
<td>6,033</td>
<td>6,173</td>
<td>2.3%</td>
</tr>
<tr>
<td>Gastroenterology</td>
<td>9,599</td>
<td>9,001</td>
<td>8,266</td>
<td>9,026</td>
<td>9.2%</td>
</tr>
<tr>
<td>General Medicine</td>
<td>5,270</td>
<td>4,150</td>
<td>4,069</td>
<td>4,356</td>
<td>7.1%</td>
</tr>
<tr>
<td>Geriatric Medicine</td>
<td>4,826</td>
<td>4,345</td>
<td>4,257</td>
<td>4,794</td>
<td>12.6%</td>
</tr>
<tr>
<td>Hematology/Oncology</td>
<td>5,622</td>
<td>6,286</td>
<td>6,640</td>
<td>6,874</td>
<td>3.5%</td>
</tr>
<tr>
<td>Infectious Diseases</td>
<td>5,528</td>
<td>5,477</td>
<td>6,858</td>
<td>5,176</td>
<td>-24.5%</td>
</tr>
<tr>
<td>Pulmonary</td>
<td>9,868</td>
<td>7,526</td>
<td>7,184</td>
<td>8,012</td>
<td>11.5%</td>
</tr>
<tr>
<td>Renal-Electrolyte</td>
<td>6,863</td>
<td>7,304</td>
<td>7,006</td>
<td>11,958</td>
<td>70.7%</td>
</tr>
<tr>
<td>Rheumatology</td>
<td>4,702</td>
<td>5,733</td>
<td>6,401</td>
<td>6,139</td>
<td>-4.1%</td>
</tr>
<tr>
<td>DOM Total</td>
<td>6,844</td>
<td>6,202</td>
<td>6,145</td>
<td>6,504</td>
<td>5.8%</td>
</tr>
</tbody>
</table>
## TABLE 4 – CLINICAL REVENUE

UNIVERSITY OF PITTSBURGH - DEPARTMENT OF MEDICINE

Clinical Revenue by Division
Fiscal Years 2014 – 2016 (a)

<table>
<thead>
<tr>
<th>Division</th>
<th>Category</th>
<th>FY 2003</th>
<th>FY 2014</th>
<th>FY 2015</th>
<th>FY 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Base Year)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Endocrinology</td>
<td>UPP / EPIC (b)</td>
<td>446,754</td>
<td>3,546,303</td>
<td>3,997,239</td>
<td>4,000,973</td>
</tr>
<tr>
<td></td>
<td>Quality Incentives</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>HBC/Hospital Support (c)</td>
<td>666,448</td>
<td>2,460,606</td>
<td>2,933,329</td>
<td>2,679,980</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1,113,202</td>
<td>6,006,909</td>
<td>6,930,568</td>
<td>6,680,953</td>
</tr>
<tr>
<td>Gastroenterology</td>
<td>UPP / EPIC (b)</td>
<td>4,338,809</td>
<td>13,128,402</td>
<td>12,862,703</td>
<td>12,177,415</td>
</tr>
<tr>
<td></td>
<td>Quality Incentives</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>HBC/Hospital Support (c)</td>
<td>1,221,806</td>
<td>8,914,592</td>
<td>8,869,717</td>
<td>8,813,074</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>5,560,615</td>
<td>22,042,994</td>
<td>21,732,420</td>
<td>20,990,489</td>
</tr>
<tr>
<td>General Medicine</td>
<td>UPP / EPIC (b)</td>
<td>1,231,285</td>
<td>10,686,847</td>
<td>10,846,980</td>
<td>11,467,944</td>
</tr>
<tr>
<td></td>
<td>Capitation</td>
<td>-</td>
<td>92,887</td>
<td>106,606</td>
<td>138,497</td>
</tr>
<tr>
<td></td>
<td>Quality Incentives</td>
<td>-</td>
<td>1,028,695</td>
<td>946,257</td>
<td>827,046</td>
</tr>
<tr>
<td></td>
<td>HBC/Hospital Support (c)</td>
<td>2,273,550</td>
<td>12,582,115</td>
<td>13,275,041</td>
<td>14,207,964</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3,504,835</td>
<td>24,390,544</td>
<td>25,174,884</td>
<td>26,641,451</td>
</tr>
<tr>
<td>Geriatrics</td>
<td>UPP / EPIC (b)</td>
<td>778,503</td>
<td>1,763,347</td>
<td>1,888,692</td>
<td>1,883,025</td>
</tr>
<tr>
<td></td>
<td>Capitation</td>
<td>-</td>
<td>18,334</td>
<td>41,770</td>
<td>38,221</td>
</tr>
<tr>
<td></td>
<td>Quality Incentives</td>
<td>-</td>
<td>17,663</td>
<td>-</td>
<td>177</td>
</tr>
<tr>
<td></td>
<td>HBC/Hospital Support (c)</td>
<td>417,220</td>
<td>2,180,822</td>
<td>2,352,072</td>
<td>2,376,140</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1,195,723</td>
<td>3,980,166</td>
<td>4,282,534</td>
<td>4,297,563</td>
</tr>
<tr>
<td>Department</td>
<td>UPP / EPIC (b)</td>
<td>FY 2015</td>
<td>FY 2016</td>
<td>FY 2017</td>
<td>FY 2018</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>----------------</td>
<td>-----------------</td>
<td>-----------------</td>
<td>-----------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Hematology/Oncology</td>
<td>1,246,011</td>
<td>4,288,039</td>
<td>4,330,104</td>
<td>4,236,411</td>
<td></td>
</tr>
<tr>
<td>Quality Incentives</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1,024</td>
</tr>
<tr>
<td>HBC/Hospital Support (c)</td>
<td>1,078,424</td>
<td>7,533,083</td>
<td>8,123,582</td>
<td>8,402,468</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2,324,435</td>
<td>11,821,122</td>
<td>12,453,686</td>
<td>12,639,903</td>
<td></td>
</tr>
<tr>
<td>Infectious Diseases</td>
<td>505,705</td>
<td>2,623,911</td>
<td>2,521,856</td>
<td>2,537,559</td>
<td></td>
</tr>
<tr>
<td>Quality Incentives</td>
<td>-</td>
<td>7,966</td>
<td>5,455</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>HBC/Hospital Support (c)</td>
<td>94,668</td>
<td>3,210,612</td>
<td>3,145,648</td>
<td>3,123,026</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>600,373</td>
<td>5,842,489</td>
<td>5,672,959</td>
<td>5,660,585</td>
<td></td>
</tr>
<tr>
<td>Pulmonary (d)</td>
<td>2,542,622</td>
<td>16,762,517</td>
<td>17,941,326</td>
<td>15,017,395</td>
<td></td>
</tr>
<tr>
<td>Quality Incentives</td>
<td>-</td>
<td>580</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>HBC/Hospital Support (c)</td>
<td>612,214</td>
<td>6,908,184</td>
<td>6,892,183</td>
<td>5,166,290</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3,154,836</td>
<td>23,671,281</td>
<td>24,833,509</td>
<td>20,183,685</td>
<td></td>
</tr>
<tr>
<td>Renal-Electrolyte</td>
<td>1,691,416</td>
<td>3,615,791</td>
<td>3,791,829</td>
<td>3,909,560</td>
<td></td>
</tr>
<tr>
<td>Quality Incentives</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>HBC/Hospital Support (c)</td>
<td>136,620</td>
<td>2,862,587</td>
<td>2,668,095</td>
<td>2,806,128</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1,828,036</td>
<td>6,478,378</td>
<td>6,459,924</td>
<td>6,715,688</td>
<td></td>
</tr>
<tr>
<td>Rheumatology (e)</td>
<td>93,292</td>
<td>9,902,813</td>
<td>10,146,738</td>
<td>9,745,708</td>
<td></td>
</tr>
<tr>
<td>Capitation</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Quality Incentives</td>
<td>-</td>
<td>18,930</td>
<td>-</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>HBC/Hospital Support (c)</td>
<td>610,052</td>
<td>4,301,939</td>
<td>3,409,973</td>
<td>3,166,009</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>703,344</td>
<td>14,223,682</td>
<td>13,556,711</td>
<td>12,911,752</td>
<td></td>
</tr>
</tbody>
</table>
### Key Stats

#### FY 2015-2016

<table>
<thead>
<tr>
<th>Department</th>
<th>UPP / EPIC (b)</th>
<th>Capitation</th>
<th>Quality Incentives</th>
<th>HBC/Hospital Support (c)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shadyside Hospitalists</strong></td>
<td>1,124,092</td>
<td>1,862,506</td>
<td>2,264,399</td>
<td>3,100,073</td>
<td>647,452</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>2,734,146</td>
<td>308,012</td>
<td>422,748</td>
<td>21,127</td>
<td>3,863,658</td>
</tr>
<tr>
<td><strong>DOM Grand Total</strong></td>
<td>70,176,208</td>
<td>70,497,985</td>
<td>67,663,137</td>
<td>53,841,152</td>
<td>20,632,851</td>
</tr>
</tbody>
</table>

- **a)** Excludes CVI and UPCI.
- **b)** UPP / EPIC includes net patient revenue for inpatient consults, outpatient visits and procedures.
- **c)** HBC / Hospital contracted revenue determined by total Division wRVUs and the agreed upon Division rate of reimbursement.
- **d)** Includes Medical Thoracic Associates.
- **e)** Includes Lupus, Arthritis and Internal Medicine and Margolis.
- **f)** Total does not tie exactly to the amount noted in other income for UPP Business Units on Table 5 mostly because Table 5 includes hospital contracted revenue for all Divisions of the Department of Medicine, as opposed to just clinical Divisions.

Source: FY 14 Division Financial Statements
Prepared by: Department of Medicine Finance

http://www.dom.pitt.edu
TABLE 5 – FINAL REPORT OF FINANCIAL ACTIVITY

SCHOOL OF MEDICINE AND UNIVERSITY OF PITTSBURGH PHYSICIANS

DEPARTMENT OF MEDICINE
Fiscal Year 2016 Final Report of Financial Activity
Total Department (a)

<table>
<thead>
<tr>
<th>Revenue:</th>
<th>Hard Money</th>
<th>Restricted</th>
<th>Self Support</th>
<th>Research</th>
<th>Other University</th>
<th>Vascular Medicine</th>
<th>Division UPP</th>
<th>Seed UPP</th>
<th>UPMC Clinical</th>
<th>Total Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Patient Service Revenue</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>67,663,137</td>
<td>-</td>
</tr>
<tr>
<td>School of Medicine - ECU</td>
<td>2,700,315</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>School of Medicine - Other</td>
<td>567,799</td>
<td>865,671</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1,433,470</td>
<td></td>
</tr>
<tr>
<td>SVC Discretionary Support</td>
<td>1,816,961</td>
<td>2,051,371</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3,870,332</td>
<td></td>
</tr>
<tr>
<td>Direct Grants</td>
<td>-</td>
<td>-</td>
<td>50,359,581</td>
<td>-</td>
<td>8,051,528</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>58,411,109</td>
<td></td>
</tr>
<tr>
<td>Indirect Cost Recovery (a)</td>
<td>15,467,300</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>18,071,217</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gifts</td>
<td>-</td>
<td>75,663</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1,804</td>
<td>-</td>
<td>1,231,203</td>
<td></td>
</tr>
<tr>
<td>Investment Income</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1,257,495</td>
<td>-</td>
<td>623,509</td>
<td></td>
</tr>
<tr>
<td>Endowment Income</td>
<td>-</td>
<td>1,257,495</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>51,319</td>
<td>-</td>
<td>1,308,814</td>
<td></td>
</tr>
<tr>
<td>UPMC Corporate Support</td>
<td>532,980</td>
<td>5,137,259</td>
<td>102,500</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>5,772,739</td>
<td></td>
</tr>
<tr>
<td>UPP Academic Support</td>
<td>-</td>
<td>4,829,667</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4,829,667</td>
<td></td>
</tr>
<tr>
<td>Other Revenue (10,635)</td>
<td>1,025,446</td>
<td>141,098</td>
<td>-</td>
<td>4,623,959</td>
<td>3,263</td>
<td>8,211,727</td>
<td>58,164,646</td>
<td>2,900,403</td>
<td>3,055,767</td>
<td>77,956,749</td>
</tr>
<tr>
<td>Total Revenue</td>
<td>21,076,720</td>
<td>16,468,650</td>
<td>243,598</td>
<td>50,359,581</td>
<td>4,623,959</td>
<td>10,385,869</td>
<td>8,211,727</td>
<td>126,158,870</td>
<td>3,126,445</td>
<td>3,055,767</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Expenses:</th>
<th>Hard Money</th>
<th>Restricted</th>
<th>Self Support</th>
<th>Research</th>
<th>Other University</th>
<th>Vascular Medicine</th>
<th>Division UPP</th>
<th>Seed UPP</th>
<th>UPMC Clinical</th>
<th>Total Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries and Fringe:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical Faculty Salary</td>
<td>2,276,772</td>
<td>2,758,548</td>
<td>38,154</td>
<td>14,884,630</td>
<td>4,322,782</td>
<td>2,153,302</td>
<td>8,211,727</td>
<td>74,179,563</td>
<td>841,066</td>
<td>192,407</td>
</tr>
<tr>
<td>Other Salary</td>
<td>237,939</td>
<td>211,920</td>
<td>7,235</td>
<td>1,843,760</td>
<td>246,883</td>
<td>363,730</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2,911,467</td>
</tr>
<tr>
<td>Staff Salary</td>
<td>3,951,448</td>
<td>2,583,956</td>
<td>883,916</td>
<td>8,958,284</td>
<td>54,294</td>
<td>1,879,525</td>
<td>18,063,789</td>
<td>912,095</td>
<td>1,011,911</td>
<td>38,299,218</td>
</tr>
<tr>
<td>Total Salaries</td>
<td>6,466,159</td>
<td>5,554,424</td>
<td>929,305</td>
<td>25,686,674</td>
<td>4,623,959</td>
<td>4,396,557</td>
<td>8,211,727</td>
<td>92,243,352</td>
<td>1,753,161</td>
<td>1,204,318</td>
</tr>
<tr>
<td>Medical Faculty Fringes</td>
<td>444,906</td>
<td>710,407</td>
<td>8,701</td>
<td>3,573,633</td>
<td>-</td>
<td>493,051</td>
<td>-</td>
<td>9,937,058</td>
<td>206,064</td>
<td>48,781</td>
</tr>
<tr>
<td>Other Faculty Fringes</td>
<td>-</td>
<td>164,530</td>
<td>1,199</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Staff Fringes</td>
<td>1,523,625</td>
<td>851,228</td>
<td>341,379</td>
<td>3,242,899</td>
<td>-</td>
<td>734,894</td>
<td>-</td>
<td>5,157,482</td>
<td>264,381</td>
<td>345,686</td>
</tr>
<tr>
<td>Total Fringe Benefits</td>
<td>1,969,531</td>
<td>1,726,165</td>
<td>351,279</td>
<td>6,816,532</td>
<td>-</td>
<td>1,227,946</td>
<td>-</td>
<td>15,094,540</td>
<td>470,445</td>
<td>384,467</td>
</tr>
<tr>
<td>Total Salaries and Fringe Benefits</td>
<td>8,434,690</td>
<td>7,280,589</td>
<td>1,280,584</td>
<td>32,503,206</td>
<td>4,623,959</td>
<td>5,624,503</td>
<td>8,211,727</td>
<td>107,337,892</td>
<td>3,223,006</td>
<td>1,588,785</td>
</tr>
</tbody>
</table>
## Key Stats

**FY 2015-2016**

### Department of Medicine

http://www.dom.pitt.edu

---

(a) Indirect cost recovery does not include UPCI, VA or Clinical Trials.

(b) Rent that is not included in University overhead.

(c) Mostly represents transfers between funds within the DOM.

Source: Department of Medicine, UPMC and University of Pittsburgh General Ledgers

Prepared by: Department of Medicine Finance

<table>
<thead>
<tr>
<th>Operating Expenses:</th>
<th>Hard Money</th>
<th>Restricted</th>
<th>Self Support</th>
<th>Research</th>
<th>Other</th>
<th>Vascular</th>
<th>University</th>
<th>Medicine</th>
<th>VA</th>
<th>Division</th>
<th>Seed</th>
<th>UPMC</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supplies</td>
<td>399,690</td>
<td>1,523,491</td>
<td>8,641</td>
<td>5,558,236</td>
<td>-</td>
<td>1,585,134</td>
<td>-</td>
<td>5,435,065</td>
<td>124,136</td>
<td>51,337</td>
<td>14,685,730</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rent (b)</td>
<td>5,342,278</td>
<td>71,597</td>
<td>41,464</td>
<td>-</td>
<td>-</td>
<td>908,645</td>
<td>-</td>
<td>3,464,285</td>
<td>-</td>
<td>-</td>
<td>9,828,469</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintenance &amp; Repairs</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>62,733</td>
<td>22,235</td>
<td>-</td>
<td>84,968</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utilities and Telephone</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>320,343</td>
<td>4,049</td>
<td>105</td>
<td>324,497</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchased Services-All Other</td>
<td>371,999</td>
<td>903,901</td>
<td>21,214</td>
<td>10,428,140</td>
<td>-</td>
<td>1,032,986</td>
<td>-</td>
<td>1,261,860</td>
<td>34,532</td>
<td>506,411</td>
<td>14,561,043</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travel and Business</td>
<td>288,867</td>
<td>974,046</td>
<td>18,582</td>
<td>739,862</td>
<td>-</td>
<td>221,112</td>
<td>-</td>
<td>876,533</td>
<td>22,486</td>
<td>-</td>
<td>3,145,701</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Aid</td>
<td>44,841</td>
<td>73,035</td>
<td>-</td>
<td>100,323</td>
<td>-</td>
<td>16,198</td>
<td>-</td>
<td>234,397</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Expense</td>
<td>823,880</td>
<td>351,925</td>
<td>(1,122,081)</td>
<td>505,771</td>
<td>-</td>
<td>69,160</td>
<td>-</td>
<td>1,531,617</td>
<td>6,917,135</td>
<td>358,006</td>
<td>9,435,413</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital Equip. and Renovations</td>
<td>166,701</td>
<td>1,117,680</td>
<td>-</td>
<td>524,043</td>
<td>-</td>
<td>41,689</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1,850,113</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transfers (c)</td>
<td>194,259</td>
<td>(556,885)</td>
<td>10,474</td>
<td>-</td>
<td>(745)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>(352,897)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stepdown/Overhead</td>
<td>4,515,437</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>314,913</td>
<td>-</td>
<td>5,687,037</td>
<td>41,410</td>
<td>48,892</td>
<td>10,607,689</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Operating Expenses</strong></td>
<td>12,147,952</td>
<td>4,458,790</td>
<td>(1,021,706)</td>
<td>17,856,375</td>
<td>-</td>
<td>4,189,292</td>
<td>-</td>
<td>18,639,473</td>
<td>7,165,983</td>
<td>968,964</td>
<td>64,405,123</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Total Expenses     | 20,582,642 | 11,739,379 | 258,878      | 50,359,581 | 4,623,995 | 9,813,795 | 6,211,727 | 125,977,365 | 9,389,589 | 2,567,749 | 243,524,664 |

| Excess(deficit) of revenue over expenses | 494,078 | 4,729,271 | (15,280) | 0 | - | 572,074 | - | 181,505 | (6,263,144) | 488,018 | 188,522 |

---

*Department of Medicine*
# DEPARTMENT OF MEDICINE

## Fiscal Year 2016 Final Report of Financial Activity

### Division of Cardiology

#### Hard Money

<table>
<thead>
<tr>
<th>Source</th>
<th>Hard Money</th>
<th>Restricted</th>
<th>Self Support</th>
<th>Research</th>
<th>Other University Support</th>
<th>Vascular Medicine Institute</th>
<th>VA</th>
<th>Division UPP Bus. Unit</th>
<th>Seed UPP Bus. Unit</th>
<th>UPMC Clinical UPP</th>
<th>Total Division</th>
</tr>
</thead>
<tbody>
<tr>
<td>net Patient Service Revenue</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>School of Medicine - ECU</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>School of Medicine - Other</td>
<td>$ 432,201</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$ 432,201</td>
</tr>
<tr>
<td>SVC Discretionary Support</td>
<td>$</td>
<td>$ 289,455</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$ 289,455</td>
</tr>
<tr>
<td>Indirect Cost Recovery</td>
<td>$ 1,200,662</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$ 1,200,662</td>
</tr>
<tr>
<td>Direct Grants</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$ 3,485,079</td>
</tr>
<tr>
<td>Gifts</td>
<td>$</td>
<td>$ 38,152</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$ 38,152</td>
</tr>
<tr>
<td>Investment Income</td>
<td>$</td>
<td>$ 6,420</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$ 6,420</td>
</tr>
<tr>
<td>Endowment Income</td>
<td>$</td>
<td>$ 310,302</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$ 330,102</td>
</tr>
<tr>
<td>UPMC Corporate Support</td>
<td>$ 34,083</td>
<td>$ 3,738</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$ 37,821</td>
</tr>
<tr>
<td>UPP Academic Support</td>
<td>$</td>
<td>$ 460,268</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$ 460,268</td>
</tr>
<tr>
<td>Other Revenue</td>
<td>$</td>
<td>$ 93,600</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$ 93,600</td>
</tr>
<tr>
<td><strong>Total Revenue</strong></td>
<td>$ 1,666,946</td>
<td>$ 1,201,735</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$ 6,353,760</td>
</tr>
</tbody>
</table>

#### Salary and Fringe Expenses:

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Faculty Salary</td>
<td>$ 36,383</td>
</tr>
<tr>
<td>Other Faculty Salary</td>
<td>$ 1,422</td>
</tr>
<tr>
<td>Staff Salary</td>
<td>$ 114,105</td>
</tr>
<tr>
<td><strong>Total Salaries</strong></td>
<td>$ 151,910</td>
</tr>
<tr>
<td>Fringe Benefits (Faculty &amp; Staff)</td>
<td>$ 51,439</td>
</tr>
<tr>
<td><strong>Total Fringe Benefits</strong></td>
<td>$ 51,439</td>
</tr>
<tr>
<td><strong>Total Salaries and Fringe Benefits</strong></td>
<td>$ 203,349</td>
</tr>
</tbody>
</table>
# DEPARTMENT OF MEDICINE

## Fiscal Year 2016 Final Report of Financial Activity

### Division of Cardiology

<table>
<thead>
<tr>
<th>Operating Expenses:</th>
<th>Hard Money</th>
<th>Restricted</th>
<th>Self Support</th>
<th>Research</th>
<th>Other University Support</th>
<th>Vascular Medicine Institute</th>
<th>VA</th>
<th>Division UPP Bus. Unit</th>
<th>Seed UPP Bus. Unit</th>
<th>UPMC Clinical Trials</th>
<th>Total Division</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supplies</td>
<td>$11,667</td>
<td>$141,345</td>
<td>$-</td>
<td>$597,316</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$315,275</td>
</tr>
<tr>
<td>Rent(a)</td>
<td>$807,505</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$807,505</td>
</tr>
<tr>
<td>Maintenance &amp; Repairs</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
</tr>
<tr>
<td>Utilities and Telephone</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
</tr>
<tr>
<td>Professional Services &amp; Subcontracts</td>
<td>$3,956</td>
<td>$56,038</td>
<td>$-</td>
<td>$238,710</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$298,704</td>
</tr>
<tr>
<td>Travel and Business</td>
<td>$14,642</td>
<td>$28,800</td>
<td>$-</td>
<td>$29,697</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$73,139</td>
</tr>
<tr>
<td>Financial Aid</td>
<td>$-</td>
<td>$462</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$462</td>
</tr>
<tr>
<td>Other Expense</td>
<td>$104,773</td>
<td>$9,381</td>
<td>$-</td>
<td>$20,819</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$134,973</td>
</tr>
<tr>
<td>Capital Equip. and Renovations</td>
<td>$-</td>
<td>$57,715</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$57,715</td>
</tr>
<tr>
<td>Transfers(b)</td>
<td>$127,819</td>
<td>$33,451</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$94,368</td>
</tr>
<tr>
<td>Stepdown Overhead</td>
<td>$514,611</td>
<td>$-</td>
<td>$-</td>
<td>$514,611</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$514,611</td>
</tr>
<tr>
<td>Total Operating Expenses</td>
<td>$1,329,335</td>
<td>$269,015</td>
<td>$-</td>
<td>$944,719</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$2,108,016</td>
</tr>
<tr>
<td>Total Expenses</td>
<td>$1,532,684</td>
<td>$917,518</td>
<td>$-</td>
<td>$1,485,079</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$5,500,228</td>
</tr>
<tr>
<td>Excess(deficit) of revenue over expenses:</td>
<td>$134,262</td>
<td>$284,217</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$853,532</td>
</tr>
</tbody>
</table>

(a) Rent includes step-down and external rent costs.
(b) Mostly represents transfers between funds within the DOM.

Source: Department of Medicine, UPMC and University of Pittsburgh General Ledgers
Prepared by: Division of Cardiology Finance Staff

---

Deborah of Medicine

http://www.dom.pitt.edu
### TABLE 6 – DEPARTMENT BUDGET

**SCHOOL OF MEDICINE AND UNIVERSITY OF PITTSBURGH PHYSICIANS**  
**DEPARTMENT OF MEDICINE**  
**Fiscal Year 2017 Budget of Financial Activity**  
**Total Department (a)**

<table>
<thead>
<tr>
<th>Revenue:</th>
<th>Hard Money</th>
<th>Restricted</th>
<th>Self Support</th>
<th>Research</th>
<th>Other Vascular</th>
<th>Division</th>
<th>Seed</th>
<th>UPMC</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Patient Service Revenue</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>School of Medicine ECU Allocation</td>
<td>2,702,247</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>School of Medicine Other Support</td>
<td>525,327</td>
<td>865,671</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>SVC Discretionary Support</td>
<td>1,132,978</td>
<td>2,776,642</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Grant Directs</td>
<td>-</td>
<td>-</td>
<td>49,474,240</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Grant Indirect Cost Recovery</td>
<td>15,991,475</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Gifts</td>
<td>-</td>
<td>446,800</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Investment Income</td>
<td>-</td>
<td>37,411</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Endowment Income</td>
<td>-</td>
<td>1,246,162</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>UPMC Corporate Support</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>UPP Academic Support</td>
<td>30,000</td>
<td>11,670,533</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Other Revenue</td>
<td>-</td>
<td>431,691</td>
<td>196,000</td>
<td>-</td>
<td>1,287,528</td>
<td>9,039,568</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total Revenue</strong></td>
<td>20,382,027</td>
<td>17,474,910</td>
<td>196,000</td>
<td>49,474,240</td>
<td>1,287,528</td>
<td>9,039,568</td>
<td>7,023,738</td>
<td>128,154,332</td>
<td>2,565,437</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Expenses:</th>
<th>Hard Money</th>
<th>Restricted</th>
<th>Self Support</th>
<th>Research</th>
<th>Other Vascular</th>
<th>Division</th>
<th>Seed</th>
<th>UPMC</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries and Fringe:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical Faculty</td>
<td>2,086,741</td>
<td>5,263,566</td>
<td>29,837</td>
<td>-</td>
<td>1,857,450</td>
<td>7,023,738</td>
<td>74,823,702</td>
<td>432,598</td>
<td>255,532</td>
</tr>
<tr>
<td>Other Faculty</td>
<td>75,043</td>
<td>171,611</td>
<td>13,255</td>
<td>209,765</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Staff</td>
<td>4,568,558</td>
<td>3,613,656</td>
<td>1,053,110</td>
<td>930,593</td>
<td>2,038,053</td>
<td>19,176,075</td>
<td>1,103,005</td>
<td>23,501,270</td>
<td></td>
</tr>
<tr>
<td><strong>Total Salaries</strong></td>
<td>6,730,342</td>
<td>9,048,833</td>
<td>1,096,202</td>
<td>-</td>
<td>1,287,528</td>
<td>9,039,568</td>
<td>7,023,738</td>
<td>128,154,332</td>
<td>1,450,818</td>
</tr>
</tbody>
</table>

| Total Fringe Benefits        | 2,345,825  | 2,836,379  | 421,123      | 356,935  | 1,212,687      | 15,752,993| 401,331 | 457,305 | 23,784,578 |
| Total Salaries and Fringe Benefits | 9,076,167 | 11,885,212 | 1,517,325    | -        | 1,287,528      | 5,317,955| 7,023,738 | 109,752,770 | 1,852,149 | 1,815,842 | 149,528,686 |
# DEPARTMENT OF MEDICINE

## Fiscal Year 2017 Budget of Financial Activity

### Total Department (a)

<table>
<thead>
<tr>
<th>Operating Expenses:</th>
<th>Hard Money</th>
<th>Restricted</th>
<th>Self Support</th>
<th>Research</th>
<th>Other</th>
<th>Vascular</th>
<th>Division</th>
<th>Seed</th>
<th>UPMC</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supplies and Minor Equipment</td>
<td>413,802</td>
<td>2,513,407</td>
<td>4,191</td>
<td>-</td>
<td>-</td>
<td>1,754,911</td>
<td>-</td>
<td>5,055,536</td>
<td>205,061</td>
<td>50,338</td>
</tr>
<tr>
<td>Rent (b)</td>
<td>(23,960)</td>
<td>179,303</td>
<td>21,598</td>
<td>-</td>
<td>-</td>
<td>(224,388)</td>
<td>-</td>
<td>3,274,215</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Maintenance &amp; Repairs</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>50,036</td>
<td>35,105</td>
<td>-</td>
</tr>
<tr>
<td>Utilities and Telephone</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>323,229</td>
<td>4,044</td>
<td>105</td>
</tr>
<tr>
<td>Purchased Services-All Other</td>
<td>289,745</td>
<td>1,125,138</td>
<td>8,000</td>
<td>-</td>
<td>-</td>
<td>326,575</td>
<td>-</td>
<td>991,686</td>
<td>105,798</td>
<td>519,762</td>
</tr>
<tr>
<td>Travel &amp; Business</td>
<td>250,302</td>
<td>1,023,004</td>
<td>13,000</td>
<td>-</td>
<td>-</td>
<td>179,714</td>
<td>-</td>
<td>847,777</td>
<td>31,134</td>
<td>2,276</td>
</tr>
<tr>
<td>Other Expense</td>
<td>755,817</td>
<td>627,793</td>
<td>(1,332,144)</td>
<td>49,474,240</td>
<td>-</td>
<td>191,407</td>
<td>-</td>
<td>605,084</td>
<td>6,621,911</td>
<td>204,188</td>
</tr>
<tr>
<td>Capital Equipment &amp; Renovations</td>
<td>59,500</td>
<td>1,211,979</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1,271,479</td>
</tr>
<tr>
<td>Transfers-Out (c)</td>
<td>73,215</td>
<td>(383,628)</td>
<td>(35,970)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Step-down/Overhead</td>
<td>9,487,439</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1,510,162</td>
<td>-</td>
<td>5,728,688</td>
<td>41,311</td>
<td>46,237</td>
</tr>
<tr>
<td>Total Operating Expenses</td>
<td>11,305,860</td>
<td>6,296,996</td>
<td>(1,321,325)</td>
<td>49,474,240</td>
<td>-</td>
<td>3,738,381</td>
<td>-</td>
<td>16,876,231</td>
<td>7,244,364</td>
<td>822,906</td>
</tr>
</tbody>
</table>

| Total Expenses | 20,382,027 | 18,182,208 | 196,000 | 49,474,240 | 1,287,528 | 9,056,336 | 7,023,738 | 126,629,001 | 9,096,513 | 2,638,748 | 243,966,339 |

| Excess(deficit) of revenue over expenses: | - | (707,298) | - | - | - | (16,768) | - | 1,525,331 | (6,531,076) | 251,017 | (5,478,794) |

(a) Excludes CVI and UPCI.
(b) Rent that is not included in University overhead.
(c) Mostly represents transfers between funds within the DOM.

Source: Department of Medicine, UPMC and University of Pittsburgh General Ledgers
Prepared by: Department of Medicine Finance
### TABLE 7 – COST RESEARCH EXPENDITURES

**UNIVERSITY OF PITTSBURGH–DEPARTMENT OF MEDICINE**

Total Direct Cost Research Expenditures *(a)*
Fiscal Years 2014-2016

<table>
<thead>
<tr>
<th>Division</th>
<th>FY2003 (Base Year)</th>
<th>FY2014</th>
<th>FY2015</th>
<th>FY2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiology</td>
<td>$3,934,805</td>
<td>$8,325,713</td>
<td>$12,797,018</td>
<td>$10,259,291</td>
</tr>
<tr>
<td>Endocrinology</td>
<td>4,840,869</td>
<td>1,642,903</td>
<td>1,813,113</td>
<td>1,418,103</td>
</tr>
<tr>
<td>Gastroenterology</td>
<td>3,289,716</td>
<td>3,308,798</td>
<td>2,797,016</td>
<td>2,665,905</td>
</tr>
<tr>
<td>General Medicine</td>
<td>8,268,667</td>
<td>12,908,592</td>
<td>15,227,841</td>
<td>14,945,291</td>
</tr>
<tr>
<td>Geriatric Medicine</td>
<td>1,221,356</td>
<td>1,595,048</td>
<td>1,468,613</td>
<td>2,326,460</td>
</tr>
<tr>
<td>Hematology/Oncology</td>
<td>7,684,422</td>
<td>12,399,475</td>
<td>14,780,260</td>
<td>14,166,254</td>
</tr>
<tr>
<td>Infectious Diseases</td>
<td>5,999,194</td>
<td>7,744,357</td>
<td>8,566,425</td>
<td>8,832,607</td>
</tr>
<tr>
<td>Other</td>
<td>4,792,615</td>
<td>1,269,353</td>
<td>1,005,924</td>
<td>100,068</td>
</tr>
<tr>
<td>Pulmonary</td>
<td>4,886,833</td>
<td>13,219,181</td>
<td>14,509,974</td>
<td>16,264,723</td>
</tr>
<tr>
<td>Renal-Electrolyte</td>
<td>3,226,746</td>
<td>3,876,354</td>
<td>4,284,727</td>
<td>5,023,144</td>
</tr>
<tr>
<td>Rheumatology</td>
<td>2,354,850</td>
<td>3,836,683</td>
<td>4,510,005</td>
<td>3,576,961</td>
</tr>
<tr>
<td>Vascular Medicine Institute</td>
<td>-</td>
<td>6,979,184</td>
<td>7,510,745</td>
<td>8,051,528</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>$50,500,073</strong></td>
<td><strong>$77,105,641 (a)</strong></td>
<td><strong>$89,271,661 (a)</strong></td>
<td><strong>$87,630,336 (a)</strong></td>
</tr>
<tr>
<td><strong>Indirects</strong></td>
<td><strong>$13,100,458</strong></td>
<td><strong>$25,590,029 (a)</strong></td>
<td><strong>$28,171,527 (a)</strong></td>
<td><strong>$29,522,172 (a)</strong></td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>$63,600,531</strong></td>
<td><strong>$102,695,670 (a)</strong></td>
<td><strong>$117,443,188 (a)</strong></td>
<td><strong>$117,152,509 (a)</strong></td>
</tr>
</tbody>
</table>

*(a) Amounts do not agree to the respective amounts in Table 5 due to the inclusion of University of Pittsburgh Cancer Institute (Hematology/Oncology) or VA directs and indirects within Table 8 on this page.*

**Source:** University of Pittsburgh RPARE Report, UPP, VAPHS, UPMC Clinical Trials

**Prepared by:** Department of Medicine, Research Administration

http://www.dom.pitt.edu
# TABLE 8 – DIRECT COST RESEARCH EXPENDITURES BY TYPE

## UNIVERSITY OF PITTSBURGH–DEPARTMENT OF MEDICINE

## Total Direct Cost Research Expenditures by Type

### Fiscal Year 2014-2016

<table>
<thead>
<tr>
<th>Division</th>
<th>FY 2014</th>
<th>FY 2015</th>
<th>FY 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cardiology</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal</td>
<td>$7,490,305</td>
<td>$11,969,946</td>
<td>$9,371,362</td>
</tr>
<tr>
<td>Pharmaceutical</td>
<td>132,084</td>
<td>140,418</td>
<td>12,780</td>
</tr>
<tr>
<td>Other</td>
<td>703,324</td>
<td>686,654</td>
<td>875,150</td>
</tr>
<tr>
<td><strong>Subtotal Cardiology</strong></td>
<td>$8,325,713</td>
<td>$12,797,018</td>
<td>$10,259,291</td>
</tr>
<tr>
<td><strong>Endocrinology</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal</td>
<td>$976,667</td>
<td>$945,858</td>
<td>$886,708</td>
</tr>
<tr>
<td>Pharmaceutical</td>
<td>92,143</td>
<td>279,189</td>
<td>3,266</td>
</tr>
<tr>
<td>Other</td>
<td>574,093</td>
<td>588,066</td>
<td>528,128</td>
</tr>
<tr>
<td><strong>Subtotal Endocrinology</strong></td>
<td>$1,642,903</td>
<td>$1,813,113</td>
<td>$1,418,103</td>
</tr>
<tr>
<td><strong>Gastroenterology</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal</td>
<td>$1,828,834</td>
<td>$1,337,408</td>
<td>$1,431,690</td>
</tr>
<tr>
<td>Pharmaceutical</td>
<td>585,268</td>
<td>685,509</td>
<td>503,089</td>
</tr>
<tr>
<td>Other</td>
<td>894,696</td>
<td>774,099</td>
<td>731,126</td>
</tr>
<tr>
<td><strong>Subtotal Gastroenterology</strong></td>
<td>$3,308,798</td>
<td>$2,797,016</td>
<td>$2,665,905</td>
</tr>
<tr>
<td><strong>General Medicine</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal</td>
<td>$11,324,426</td>
<td>$11,093,253</td>
<td>$11,269,666</td>
</tr>
<tr>
<td>Pharmaceutical</td>
<td>2,466</td>
<td>3,785</td>
<td>1,566</td>
</tr>
<tr>
<td>Other</td>
<td>1,581,700</td>
<td>4,130,803</td>
<td>3,674,060</td>
</tr>
<tr>
<td><strong>Subtotal General Medicine</strong></td>
<td>$12,908,592</td>
<td>$15,227,841</td>
<td>$14,945,291</td>
</tr>
<tr>
<td><strong>Geriatric Medicine</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal</td>
<td>$1,217,844</td>
<td>$921,876</td>
<td>$1,744,861</td>
</tr>
<tr>
<td>Pharmaceutical</td>
<td>99,492</td>
<td>10,611</td>
<td>56,110</td>
</tr>
<tr>
<td>Other</td>
<td>277,712</td>
<td>536,126</td>
<td>525,489</td>
</tr>
<tr>
<td><strong>Subtotal Geriatric Medicine</strong></td>
<td>$1,595,048</td>
<td>$1,468,613</td>
<td>$2,326,460</td>
</tr>
</tbody>
</table>

[http://www.dom.pitt.edu](http://www.dom.pitt.edu)
<table>
<thead>
<tr>
<th>Division</th>
<th>FY 2014</th>
<th>FY 2015</th>
<th>FY 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hematology/Oncology</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal</td>
<td>$6,669,538</td>
<td>$7,940,523</td>
<td>$7,192,572</td>
</tr>
<tr>
<td>Pharmaceutical</td>
<td>3,118,180</td>
<td>3,575,855</td>
<td>3,900,714</td>
</tr>
<tr>
<td>Other</td>
<td>2,581,757</td>
<td>3,263,882</td>
<td>3,072,969</td>
</tr>
<tr>
<td><strong>Subtotal Hematology/Oncology</strong></td>
<td>$12,399,475</td>
<td>$14,780,260</td>
<td>$14,166,254</td>
</tr>
<tr>
<td><strong>Infectious Diseases</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal</td>
<td>$4,327,424</td>
<td>$5,095,338</td>
<td>$5,316,331</td>
</tr>
<tr>
<td>Pharmaceutical</td>
<td>637,884</td>
<td>706,289</td>
<td>342,859</td>
</tr>
<tr>
<td>Other</td>
<td>2,779,048</td>
<td>2,764,798</td>
<td>3,173,418</td>
</tr>
<tr>
<td><strong>Subtotal Infectious Diseases</strong></td>
<td>$7,744,357</td>
<td>$8,566,425</td>
<td>$8,832,607</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal</td>
<td>$1,257,753</td>
<td>$987,321</td>
<td>$100,162</td>
</tr>
<tr>
<td>Pharmaceutical</td>
<td>363</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>11,238</td>
<td>18,595</td>
<td>-95</td>
</tr>
<tr>
<td><strong>Subtotal Other</strong></td>
<td>$1,269,535</td>
<td>$1,005,924</td>
<td>$100,068</td>
</tr>
<tr>
<td><strong>Pulmonary</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal</td>
<td>$10,159,203</td>
<td>$11,193,251</td>
<td>$12,543,723</td>
</tr>
<tr>
<td>Pharmaceutical</td>
<td>1,345,808</td>
<td>1,296,845</td>
<td>1,031,002</td>
</tr>
<tr>
<td>Other</td>
<td>1,714,171</td>
<td>2,019,878</td>
<td>2,689,997</td>
</tr>
<tr>
<td><strong>Subtotal Pulmonary</strong></td>
<td>$13,219,181</td>
<td>$14,509,974</td>
<td>$16,264,723</td>
</tr>
<tr>
<td><strong>Renal-Electrolyte</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal</td>
<td>$3,356,047</td>
<td>$3,778,813</td>
<td>$4,430,913</td>
</tr>
<tr>
<td>Pharmaceutical</td>
<td>36,957</td>
<td>31,190</td>
<td>35,909</td>
</tr>
<tr>
<td>Other</td>
<td>483,351</td>
<td>474,724</td>
<td>962,398</td>
</tr>
<tr>
<td><strong>Subtotal Renal-Electrolyte</strong></td>
<td>$3,876,354</td>
<td>$4,284,727</td>
<td>$5,023,144</td>
</tr>
<tr>
<td><strong>Rheumatology</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal</td>
<td>$2,296,673</td>
<td>$2,571,895</td>
<td>$1,817,928</td>
</tr>
<tr>
<td>Pharmaceutical</td>
<td>833,882</td>
<td>1,315,965</td>
<td>796,635</td>
</tr>
<tr>
<td>Other</td>
<td>706,128</td>
<td>622,145</td>
<td>962,398</td>
</tr>
<tr>
<td><strong>Subtotal Rheumatology</strong></td>
<td>$3,836,683</td>
<td>$4,510,005</td>
<td>$3,576,961</td>
</tr>
</tbody>
</table>

Department of Medicine  [http://www.dom.pitt.edu]
## Total Direct Cost Research Expenditures by Type
### Fiscal Year 2014-2016

<table>
<thead>
<tr>
<th>Division</th>
<th>FY 2014</th>
<th>FY 2015</th>
<th>FY 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vascular Medicine Institute</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal</td>
<td>$2,086,019</td>
<td>$2,644,182</td>
<td>$3,423,096</td>
</tr>
<tr>
<td>Pharmaceutical</td>
<td>7,457</td>
<td>89,782</td>
<td>280,217</td>
</tr>
<tr>
<td>Other</td>
<td>4,885,708</td>
<td>4,776,781</td>
<td>4,348,216</td>
</tr>
<tr>
<td><strong>Subtotal VMI</strong></td>
<td>$6,979,184</td>
<td>$7,510,745</td>
<td>$8,051,528</td>
</tr>
<tr>
<td>Totals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal</td>
<td>$53,020,733</td>
<td>$60,479,664</td>
<td>$59,529,010</td>
</tr>
<tr>
<td>Pharmaceutical</td>
<td>6,891,983</td>
<td>8,135,446</td>
<td>6,964,147</td>
</tr>
<tr>
<td>Other</td>
<td>17,192,924</td>
<td>20,656,551</td>
<td>21,137,179</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>$77,105,641</td>
<td>$89,271,661</td>
<td>$87,630,336</td>
</tr>
</tbody>
</table>

(a) Amount does not agree to the respective amount on Table 5 due to the inclusion of University of Pittsburgh Cancer Institute (Hematology/Oncology, UPMC Clinical Trials and CTSI directs and indults within Table 9 on this page.

**Source:** University of Pittsburgh RPAR Report, VPHS, UPMC Clinical Trials

**Prepared by:** Department of Medicine, Research Administration

http://www.dom.pitt.edu
TABLE 9 – Department Research Activity Summary

UNIVERSITY OF PITTSBURGH - DEPARTMENT OF MEDICINE

Summary of Direct and Indirect Awarded Research by Division
Fiscal Year 2015-2016

<table>
<thead>
<tr>
<th>DIRECT COSTS BY DIVISION</th>
<th>PHS</th>
<th>FEDERAL</th>
<th>VA</th>
<th>STATE</th>
<th>SOC&amp;FDN</th>
<th>INDUSTRY</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiology</td>
<td>$9,533,173</td>
<td>$30,050</td>
<td></td>
<td>$374,415</td>
<td>$260,354</td>
<td>$10,197,992</td>
<td></td>
</tr>
<tr>
<td>Endocrinology and Metabolism</td>
<td>$909,091</td>
<td></td>
<td></td>
<td>$372,427</td>
<td>$96,342</td>
<td>$1,377,860</td>
<td></td>
</tr>
<tr>
<td>Gastroenterology, Hepatology &amp; Nutrition</td>
<td>$1,681,165</td>
<td>$251,432</td>
<td></td>
<td>$186,333</td>
<td>$1,432,441</td>
<td>$3,551,371</td>
<td></td>
</tr>
<tr>
<td>General Internal Medicine</td>
<td>$10,917,208</td>
<td>$103,889</td>
<td>$2,948,901</td>
<td>$2,679,260</td>
<td>$35,924</td>
<td>$16,685,182</td>
<td></td>
</tr>
<tr>
<td>Geriatric Medicine</td>
<td>$2,955,133</td>
<td></td>
<td></td>
<td>$390,850</td>
<td>$19,056</td>
<td>$3,365,039</td>
<td></td>
</tr>
<tr>
<td>Hematology/Oncology</td>
<td>$8,349,094</td>
<td>$666,474</td>
<td>$9,004</td>
<td>$2,666,269</td>
<td>$13,687,067</td>
<td>$26,084,167</td>
<td></td>
</tr>
<tr>
<td>Infectious Disease</td>
<td>$7,802,333</td>
<td>$731,714</td>
<td></td>
<td>$1,008,007</td>
<td>$782,380</td>
<td>$10,324,434</td>
<td></td>
</tr>
<tr>
<td>Pulmonary, Allergy and Critical Care Med</td>
<td>$13,813,632</td>
<td>$2,148,206</td>
<td></td>
<td>$1,133,664</td>
<td>$1,596,401</td>
<td>$18,927,650</td>
<td></td>
</tr>
<tr>
<td>Renal-Electrolyte</td>
<td>$4,945,692</td>
<td></td>
<td></td>
<td>$449,171</td>
<td>$12,908</td>
<td>$5,407,771</td>
<td></td>
</tr>
<tr>
<td>Rheumatology and Immunology</td>
<td>$2,309,858</td>
<td></td>
<td></td>
<td>$279,479</td>
<td>$1,605,436</td>
<td>$4,194,773</td>
<td></td>
</tr>
<tr>
<td>Vascular Medicine Institute</td>
<td>$4,154,912</td>
<td>$4,147</td>
<td></td>
<td>$3,022,807</td>
<td>$221,024</td>
<td>$7,402,890</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>$108,360</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$108,360</td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>$67,479,651</td>
<td>$3,935,912</td>
<td>$2,957,905</td>
<td>$942,006</td>
<td>$12,562,682</td>
<td>$107,627,489</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INDIRECT COST BY DIVISION</th>
<th>PHS</th>
<th>FEDERAL</th>
<th>VA</th>
<th>STATE</th>
<th>SOC&amp;FDN</th>
<th>INDUSTRY</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiology</td>
<td>$4,249,735</td>
<td>$15,579</td>
<td></td>
<td>$43,960</td>
<td>$65,236</td>
<td>$4,374,510</td>
<td></td>
</tr>
<tr>
<td>Endocrinology and Metabolism</td>
<td>$359,296</td>
<td></td>
<td></td>
<td>$96,922</td>
<td>$19,411</td>
<td>$475,629</td>
<td></td>
</tr>
<tr>
<td>Gastroenterology, Hepatology &amp; Nutrition</td>
<td>$721,698</td>
<td>$95,984</td>
<td></td>
<td>$33,694</td>
<td>$507,485</td>
<td>$1,358,861</td>
<td></td>
</tr>
<tr>
<td>General Internal Medicine</td>
<td>$3,317,363</td>
<td>$28,425</td>
<td></td>
<td>$937,716</td>
<td>$6,262</td>
<td>$4,289,766</td>
<td></td>
</tr>
<tr>
<td>Geriatric Medicine</td>
<td>$1,098,559</td>
<td></td>
<td></td>
<td>$66,902</td>
<td>$4,048</td>
<td>$1,169,509</td>
<td></td>
</tr>
<tr>
<td>Hematology/Oncology</td>
<td>$4,003,355</td>
<td>$326,889</td>
<td></td>
<td>$135,480</td>
<td>$3,478,120</td>
<td>$8,233,796</td>
<td></td>
</tr>
<tr>
<td>Infectious Disease</td>
<td>$3,050,443</td>
<td>$267,896</td>
<td></td>
<td>$99,399</td>
<td>$185,742</td>
<td>$3,603,480</td>
<td></td>
</tr>
<tr>
<td>Pulmonary, Allergy and Critical Care Med</td>
<td>$5,937,525</td>
<td>$104,493</td>
<td></td>
<td>$52,888</td>
<td>$230,219</td>
<td>$6,325,125</td>
<td></td>
</tr>
<tr>
<td>Renal-Electrolyte</td>
<td>$1,978,809</td>
<td></td>
<td></td>
<td>$37,263</td>
<td>$3,872</td>
<td>$2,019,944</td>
<td></td>
</tr>
<tr>
<td>Rheumatology and Immunology</td>
<td>$1,124,554</td>
<td></td>
<td></td>
<td>$31,157</td>
<td>$436,004</td>
<td>$1,591,715</td>
<td></td>
</tr>
<tr>
<td>Vascular Medicine Institute</td>
<td>$1,813,277</td>
<td>$2,239</td>
<td></td>
<td>$475,497</td>
<td>$58,579</td>
<td>$2,349,592</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>$43,942</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$43,942</td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>$27,698,556</td>
<td>$841,505</td>
<td>$0</td>
<td>$135,480</td>
<td>$2,165,350</td>
<td>$35,835,869</td>
<td></td>
</tr>
</tbody>
</table>

http://www.dom.pitt.edu
# TABLE 10 – EDUCATIONAL CREDIT UNITS

UNIVERSITY OF PITTSBURGH - DEPARTMENT OF MEDICINE

Fiscal Year 2016 ECUs Used to Allocate Fiscal Year 2017 Budget

<table>
<thead>
<tr>
<th></th>
<th>Individual ECU’s</th>
<th>Allocated ECU’s</th>
<th>Total ECUs ECU’s</th>
<th>Dollars ECU dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chair including (Clinical Pharmacology)</td>
<td>913.2</td>
<td>70.0</td>
<td>983.2</td>
<td>91,958</td>
</tr>
<tr>
<td>Endocrinology</td>
<td>602.2</td>
<td>25.0</td>
<td>627.2</td>
<td>58,662</td>
</tr>
<tr>
<td>Gastroenterology</td>
<td>850.3</td>
<td>8.0</td>
<td>858.3</td>
<td>80,276</td>
</tr>
<tr>
<td>General Medicine</td>
<td>10,635.0</td>
<td>4,939.0</td>
<td>15,574.0</td>
<td>1,456,630</td>
</tr>
<tr>
<td>Geriatric Medicine</td>
<td>721.8</td>
<td>5.0</td>
<td>726.8</td>
<td>67,977</td>
</tr>
<tr>
<td>Hematology Oncology</td>
<td>1,104.5</td>
<td>326.0</td>
<td>1,430.5</td>
<td>133,794</td>
</tr>
<tr>
<td>Infectious Diseases</td>
<td>1,008.0</td>
<td>507.8</td>
<td>1,515.8</td>
<td>141,772</td>
</tr>
<tr>
<td>Pulmonary</td>
<td>2,041.4</td>
<td>328.0</td>
<td>2,369.4</td>
<td>221,609</td>
</tr>
<tr>
<td>Renal</td>
<td>1,444.2</td>
<td>594.0</td>
<td>2,038.2</td>
<td>190,632</td>
</tr>
<tr>
<td>Rheumatology</td>
<td>902.0</td>
<td>387.0</td>
<td>1,289.0</td>
<td>120,560</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>20,222.6</td>
<td>7,189.8</td>
<td>27,412.4</td>
<td>2,563,870</td>
</tr>
<tr>
<td>Cardiology</td>
<td>1,417.5</td>
<td>62.0</td>
<td>1,479.5</td>
<td>138,377</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td>21,640.1</td>
<td>7,251.8</td>
<td>28,891.9</td>
<td>2,702,247</td>
</tr>
</tbody>
</table>
TABLE 11 – U.S. NEWS & WORLD REPORT RANKINGS BY DIVISION

U.S. NEWS & WORLD REPORT
UPMC Rankings and Reputation Scores 2015-2016

Nationally Ranked Medical Specialties
Department of Medicine

<table>
<thead>
<tr>
<th>Specialty Areas</th>
<th>UPMC Specialty Rankings</th>
<th>2016 Ranking</th>
<th>2015 Ranking</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honor Roll</td>
<td></td>
<td>12</td>
<td>13</td>
<td>1</td>
</tr>
<tr>
<td>Specialty Areas</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cancer</td>
<td></td>
<td>23</td>
<td>25</td>
<td>2</td>
</tr>
<tr>
<td>Cardiology &amp; Heart Surgery</td>
<td></td>
<td>19</td>
<td>30</td>
<td>11</td>
</tr>
<tr>
<td>Diabetes &amp; Endocrinology</td>
<td></td>
<td>32</td>
<td>NR</td>
<td>--</td>
</tr>
<tr>
<td>Gastroenterology &amp; GI Surgery</td>
<td></td>
<td>6</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Geriatrics</td>
<td></td>
<td>12</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>Nephrology</td>
<td></td>
<td>33</td>
<td>32</td>
<td>1</td>
</tr>
<tr>
<td>Pulmonology</td>
<td></td>
<td>7</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>Rheumatology*</td>
<td></td>
<td>9</td>
<td>8</td>
<td>1</td>
</tr>
</tbody>
</table>

Prepared by: UPMC Strategic Planning
# TABLE 12 – ASCI and AAP Membership by Division

THE AMERICAN SOCIETY FOR CLINICAL INVESTIGATORS (ASCI) & ASSOCIATION OF AMERICAN PHYSICIANS (AAP)

FY 2015-2016 Current Members
Department of Medicine

## ASCI MEMBERS

<table>
<thead>
<tr>
<th>Division</th>
<th>Members</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cardiology</strong></td>
<td>Stephen Y. Chan, Steven Reis, Flordeliza Villanueva</td>
</tr>
<tr>
<td><strong>Endocrinology and Metabolism</strong></td>
<td>Frederick DeRubertis</td>
</tr>
<tr>
<td><strong>Gastroenterology, Hepatology and Nutrition</strong></td>
<td>Satdarshan (Paul) Singh Monga, David C. Whitcomb</td>
</tr>
<tr>
<td><strong>General Internal Medicine</strong></td>
<td>Michael Fine, Wishwa Kapoor</td>
</tr>
<tr>
<td><strong>Hematology/Oncology</strong></td>
<td>Hideho Okada, Preet Chaudhary</td>
</tr>
<tr>
<td><strong>Infectious Diseases</strong></td>
<td>Lee Harrison</td>
</tr>
<tr>
<td><strong>Miscellaneous Medicine</strong></td>
<td>Siamak Adibi, Robert Branch, Arthur Levine, Philip Troen</td>
</tr>
<tr>
<td><strong>Pulmonary, Allergy and Critical Care Medicine</strong></td>
<td>Juan Celedón, Mark Gladwin, Jeremy Kahn, Janet S. Lee, Rama Mallampalli, Alison Morris, Steven Shapiro, Yutong Zhao</td>
</tr>
<tr>
<td><strong>Renal-Electrolyte</strong></td>
<td>Thomas Kleyman, Nuria M. Pastor-Soler</td>
</tr>
<tr>
<td><strong>Rheumatology and Clinical Immunology</strong></td>
<td>Larry Moreland</td>
</tr>
</tbody>
</table>

## AAP MEMBERS

<table>
<thead>
<tr>
<th>Division</th>
<th>Members</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Internal Medicine</strong></td>
<td>Michael Fine, Wishwa Kapoor</td>
</tr>
<tr>
<td><strong>Hematology/Oncology</strong></td>
<td>Nancy Davidson, John Kirkwood</td>
</tr>
<tr>
<td><strong>Infectious Diseases</strong></td>
<td>John Mellors</td>
</tr>
<tr>
<td><strong>Miscellaneous Medicine</strong></td>
<td>Arthur S. Levine</td>
</tr>
<tr>
<td><strong>Pulmonary, Allergy and Critical Care Medicine</strong></td>
<td>Juan Celedón, Mark Gladwin, Rama Mallampalli, Steven Shapiro, Sally Wenzel</td>
</tr>
<tr>
<td><strong>Renal-Electrolyte</strong></td>
<td>Thomas Kleyman</td>
</tr>
</tbody>
</table>
MEDICAL EDUCATION

SHANTA M. ZIMMER MD
Associate Professor of Medicine (ID)
Program Director, Internal Medicine Residency
Vice Chair, Education

FRANK J. KROBOTH MD
Professor of Medicine, Division of General Internal Medicine
Assistant Dean for Graduate Medical Education

Mission and Overview

Education is one of the major missions of the Department of Medicine (DOM). The chief areas of activity are medical student teaching, resident teaching, fellow teaching, advanced degree education, and continuing medical education. These areas are described below. Some areas are also described elsewhere in this report.

MEDICAL STUDENT TEACHING

The DOM provides extensive leadership and teaching of medical students, in both the preclinical and clinical years. All subspecialty Divisions are major contributors to the problem-based learning curriculum that comprises the first two years of medical school. A review of the curriculum reveals that DOM faculty members direct three of the five major blocks and 17 of the 29 courses. Thirty-one percent of all education credit units (ECUs) generated by the clinical departments for medical school teaching activity are generated by the DOM.

In the clinical years, all DOM Divisions are active. The Division of General Internal Medicine directs the Adult Inpatient Medicine Clerkship (AIMC), the Combined Ambulatory Medicine and Pediatrics Clerkship (CAMPC), and the Acting Internship in Internal Medicine, while members of the Division of Pulmonary, Allergy, and Critical Care Medicine direct the Medical Intensive Care Unit Clerkship. The AIMC eight-week inpatient rotation is the longest inpatient experience of the clinical curriculum, and it is considered the cornerstone of the medical students’ clinical education in the School of Medicine. The CAMPC eight-week block, which includes four weeks of pediatrics, reflects the importance placed on ambulatory experiences. The DOM provides a majority of the faculty for the CAMPC. Between the AIMC and the internal medicine component of the CAMPC, students spend 25% of the basic clerkship year in internal medicine. In their fourth year, most students take advantage of the DOM’s acting internships in inpatient internal medicine and the medical intensive care unit. In addition, every subspecialty offers elective experiences. These electives include varying amounts of inpatient, consultative, and ambulatory experiences.

With regard to research education, the DOM faculty members direct the Clinical Scientist Training Program (CSTP) and teach most of the courses in clinical and translational sciences. CSTP enrolled 12 students this past year. DOM faculty members are also actively involved as mentors for the required medical student research projects, and they participate in relevant MD and PhD education projects.

In addition to teaching, DOM members have major leadership roles in the School of Medicine. Many of the originators and earliest members of the Academy of Master Educators were from the DOM. The chairs and major advisers to the Student Promotions Committee, Student Honors Committee, Curriculum Committee, Student Health Advocacy Resource Program (SHARP), Honor Council, Humanism Honor Society, and Alpha Omega Alpha Honor Society are from the DOM. In addition, members of the DOM direct the majority of the Area of Concentration Programs (Women’s
RESIDENCY EDUCATION AND TRAINING PROGRAM

The DOM invests great effort in the education of residents. While the centerpiece of this effort is the Internal Medicine Residency Program, the DOM also supports three other outstanding residency programs: the Medicine-Pediatrics Residency Program, the Preliminary Program, and the Transitional Program. In addition, it supports the training of residents from other specialties, such as emergency medicine, neurology, and anesthesiology, as well as residents who rotate from UPMC community hospitals.

The Internal Medicine Residency Program serves as an educational model for providing breadth and depth of educational opportunities. The program is well recognized for its ability to provide individualized training for each future physician while maintaining a focus on core knowledge and skills development. The program does this with career tracks in global health, women's health, general internal medicine, geriatrics, and research tracks that include clinical scientist training, international scholar training, and a dedicated research pathway for physician-scientists. The track system is enhanced by an advising program that pairs each resident with a faculty mentor who is also a member of the clinic precepting team.

Nationally, the Internal Medicine Residency Program has assumed a leadership role in the redesign of medical education through the program's involvement in the Educational Innovation Project (EIP). The residency program's approach to medical education combines expertise in systems-based practice, educational methodology, and direct patient care. The redesign of residency training is based on two principles—sustaining the highly successful scientific curriculum and adding new areas of training for physicians to be successful in 21st-century health care.

The EIP 10-year implementation plan officially began in July 2007. During 2014-2015, the EIP leadership team promoted implementation, measurement, and dissemination of the innovation projects. Areas of focus included the following:

- Health policy and advocacy with a new elective that included community visits, writing a white paper, and visits with state legislators in Harrisburg
- Promotion of continuity and quality of care in the outpatient setting, with a redesign of resident-led quality improvement projects
- Enhanced efforts to improve inter-visit care and decrease inpatient-outpatient tensions by implementing a “block” schedule
- Continued focus on scholarly work through the Leadership and Discovery Program (LEAD)

The DOM provides strong support for clinical and educational innovation and improvement in terms of faculty and resources. Residents continue to excel in research, with the assistance of our subspecialty and general internal medicine mentors through the LEAD Program. Many residents presented work at national meetings and contributed to publications. Their research has led to one of the most successful fellowship placements in the history of the program. In addition to the LEAD Program for all residents, the tracks in place that have helped support the research include the Clinical Scientist Track, the International Scholars Track, and the American Board of Internal Medicine (ABIM) Research Pathway (fast track).

LEAD, an initiative launched in 2012 to enhance residents’ current scholarly activities, is supported by the DOM leadership and includes salary support for a director and co-directors. The program is led by a clinical researcher and has an executive committee that includes co-directors in each of the following areas: basic science research, medical education research, quality improvement, ethics, and humanities. The LEAD Program was introduced during the 2011 recruitment season to the applicants, and its implementation with the 2012 class of interns began with a needs
assessment that was sent to all matched candidates. The assessment is being used to pair interns with mentors and
to develop a curriculum that includes such topics as choosing a mentor, biostatistics, and institutional review boards.
Support from the DOM's Division directors includes the identification of a resident research point person in each
Division and the development of a catalog of projects suitable for resident participation. Because of increased
involvement in research, the DOM this year supported a separate evening event to showcase resident research
projects. This event has become Annual DOM Resident Research Day and will continue with oral presentations,
posters, and a keynote address.

The Subspecialty Education Coordinators (SEC) Committee has enhanced subspecialty education across teaching
venues. New electives have been created to highlight the breadth of opportunities within each subspecialty. The
committee members have been instrumental in recruitment and mentoring. They have also been helping to devise
“core” content curriculum for the Internal Medicine Residency Program to ensure that it is graduating well-rounded,
competent internists. The SECs have served as advisors and liaisons for the residents to find mentors, educational
opportunities, and fellowships. This year, the SEC group has designed new evaluation tools for consultation to be
implemented on subspecialty rotations. High-Value Cost Conscious Care initiatives are important throughout the
curriculum and the SECs are developing specialty-specific reporting of costs that influence patient care and medical
decision-making.

The residency program attracts increasingly outstanding and diverse candidates from highly regarded institutions
around the world. Applicants indicate that they have been most impressed by the relationships between the residents
and faculty, with multiple opportunities for mentoring through the formal mentoring programs and informal mentoring
from preceptors, hospitalists, research mentors, and consultant attending physicians. Applicants have also been
impressed with the support and involvement of the DOM chair and vice chairs in promoting outstanding educational
experiences within one of the top health care systems in the country, where training is focused on developing physician
leaders committed to lifelong inquiry in the field of medicine.

FELLOWSHIP TRAINING PROGRAM

The DOM offers fellowship training in all subspecialties of medicine in Accreditation Council for Graduate Medical
Education (ACGME) accredited and non-accredited programs. This academic year, 160 fellows are in training in 14
accredited programs as well as in 12 non-accredited programs. The fellowship programs are highly competitive and enroll
outstanding fellows. For the fellowships that participated in a match during the seven years before 2015, the match
ratio averaged 3:4, compared with typically 3:8 overall in programs at UPMC. In 2015, the DOM was 3.8, and 50% of
fellows came from designated peer programs. A few of the Divisions, such as the Division of Cardiology, offer some of
the largest programs in the country. Cardiology matched 70% peer program fellows in 2014 at a ratio of 2:6. For 2015,
69% of all cardiology fellows are peer program graduates.

In addition to providing excellent clinical care, the fellows are highly productive in research. In 2014 and 2015,
accredited fellows alone produced 44 abstracts and 69 publications, gave 89 scientific presentations, and were
awarded 32 teaching honors or grants. Traditionally, half of the medical center’s T-32 sponsored fellows are in the
DOM. Of our 2015 graduates, 42% obtained faculty appointments, and 31% obtained advanced specialty fellowships.
Historically, more than one-third of our graduates stay at UPMC; this year we retained 44% of our graduates.

We now have 14 ACGME-accredited fellowship programs, including programs in palliative care, transplant hepatology,
and advanced heart failure. In addition, the DOM sponsors 12 well-established non-accredited fellowship programs (in
general internal medicine, transplant pulmonary medicine, transplant nephrology, transplant infectious diseases,
advanced endocrinology, cardiac imaging, advanced cardiac electrophysiology, advanced interventional cardiology
and hospice and palliative medicine). These programs offer post subspecialty-level expertise available only in a select
number of major departments of medicine. There are also a number of fellows engaged in one or more years of
research before or after their formal training years.

http://www.dom.pitt.edu/Training.html
DOM faculty members are active in faculty development efforts at the departmental and institutional levels. The program directors are formally organized into the Common Fellowship Curriculum Committee (CFCC), which meets bimonthly to share and promote best educational practices for the fellowships. Examples of academic products of our fellowships, shared with the committee, are milestone development, an electronic portfolio system, an electronic subspecialty library, and two Divisions’ versions of next-generation procedural competency assessment tools. The CFCC serves as a model for fellowship committees in other departments. The Fellowship Program Coordinators Committee was formed to ensure optimal synchrony of directors’ and coordinators’ efforts. The results of the last RRC accreditation visits to 12 fellowships attest to the effectiveness of our committee’s work. We have now entered the Next Accreditation System, the components and requirements of which are occupying our CFCC and faculty development efforts. Site visits are infrequent, but survey data are collected yearly from fellows and faculty, along with vigorous institutional surveillance. Fellow and faculty survey results are collated and shared at CFCC annually for continual improvement.

DOM faculty members also teach in courses that are offered to fellows in other departments. For example, they teach in the pediatrics core fellowship curriculum, in which pediatrics fellows join the basic research course offered by the Division of Pulmonary, Allergy, and Critical Care Medicine. In addition, the efforts of measuring fellowship program outcomes and organizing fellowships within the DOM are shared by other departments and centers through the role of the assistant dean for graduate medical education, who is from the DOM. There are five other departments with similar fellowship committees, as well as a committee for non-ACGME accredited fellowships. The assistant dean also chairs a separate committee that directs activities in instructor-level fellowships and observerships across the UPMC network.

The DOM fellowships were poised for new growth, but now face a future of uncertain government funding and institutional restraint. While the CFCC continues to develop best performances for all our fellowships, the DOM and the University will assess the outcomes of each program, and some, such as the Division of Cardiology, are even reducing size in response to national workforce indicators.

**ADVANCED DEGREE AND CAREER DEVELOPMENT**

In addition to the clinical fellowships offered through the medical center’s graduate medical education programs and described above, the DOM has established a variety of research training and education opportunities for fellows and other individuals who are completing extra years of training to enhance their ability to conduct research. Many of these programs offer a separate degree or certification through the Institute for Clinical Research Education (ICRE).

The ICRE, under the direction of Wishwa Kapoor MD MPH, brings all of the clinical and translational research education efforts under one organizational structure and into one physical space. The institute’s mission is to offer the highest-caliber training and education in clinical and translational research to all levels of trainees in the schools of the health sciences and to enhance collaboration and cooperation among clinical research trainees and researchers from multiple disciplines. With funding from the Clinical and Translational Science Institute (CTSI), the ICRE is the home of the Research Education and Career Development Core of the CTSI. The ICRE provides training and career development for clinical and translational scientists at each stage, ranging from brief experiences in research to participation in doctoral degree programs. While the leadership and core faculty of the ICRE are primarily from the Department of Medicine, other faculty and mentors are from all disciplines and from all six Schools of the Health Sciences. Details about the ICRE can be found at [www.icre.pitt.edu](http://www.icre.pitt.edu).
The ICRE training and career development programs are customized to meet the needs of students who are from diverse training backgrounds and who are conducting research in a variety of areas. Mentor-mentee training, research-in-progress presentations, and special seminars are used to enhance the students’ careers.

**Degree Programs**

- **PhD Program in Clinical and Translational Science (CTS).** The PhD program is a rigorous training program designed to teach students advanced knowledge of concepts needed to conduct independent and innovative research.

- **MS and Certificate Programs in Clinical Research (CLRES).** The MS and certificate programs are for students who want intense training in the design and implementation of high-quality clinical research involving human subjects. The MS program also teaches grant proposal writing and contains four tracks: clinical trials research, health services research, comparative effectiveness research, and translational research.

- **MS and Certificate Programs in Medical Education (MEDEDU).** These programs provide students with a combination of clinical research courses and curriculum in medical education. Students complete a research or curriculum development project as part of their program.

- **Certificate Program in Comparative Effectiveness Research (CER).** This program is a multidisciplinary, comprehensive, and individualized training program designed for individuals who would like to obtain additional, specialized training in CER. Trainees take the eight-credit CER core curriculum and select the remaining seven credits from 16 elective courses. These elective course offerings provide each trainee with the flexibility to focus on the particular method that is most relevant to his or her research interests.

**Career Development Programs**

- **Clinical Scientist Training Program (CSTP).** Medical students in the CSTP take an additional year for training to earn an MS or certificate and attend longitudinal seminars. The program provides medical students with a structured didactic and mentored experience in clinical and translational research. This year, 15 medical students were enrolled in the CSTP.

- **Clinical Scientist Track (CST) and International Scholars Track (IST) for Residents.** Residents in the CST devote time during their residency to obtaining core training in clinical research and to conduct clinical research. Residents in the IST are accepted into the program at the time of the resident match. This year, 27 residents were enrolled in the CST and IST.

- **Career Education and Enhancement for Health Care Research Diversity (CEED) Program.** This program is designed to support medical students, postdoctoral fellows, and faculty from
underrepresented minority groups by providing them with the early mentoring and training needed for successful research careers. CEED participants are trained in leadership and management skills, grant writing, and other skills that will help them receive competitive career development awards. The CEED Program aims to promote a strong supply of well-qualified investigators to carry out basic science, clinical, and translational research in the health sciences. The program had nine scholars this year, representing a range of medical specialties and disciplines, including endocrinology, emergency medicine, critical care, hematology, obstetrics and gynecology, psychiatric epidemiology, infectious disease, and pulmonology.

- **Clinical Research Scholars Program (CRSP).** This flagship program, initially funded by the National Institutes of Health (NIH) Roadmap Initiative through the K12 mechanism, provides career development awards to faculty pursuing a research career. The CRSP prepares junior faculty from a broad range of disciplines, specialties, and subspecialties for independent careers in clinical research. The program brings together the collaborative efforts of the schools of the health sciences, the many multidisciplinary research centers at the University of Pittsburgh, and the extensive clinical entities that encompass UPMC. This year, 16 scholars were in the program.

- **RAMP to K Program.** This is a one-year program, offered every other year, intended to help senior postdoctoral fellows and junior faculty write a competitive career development award. Participants benefit from career development seminars as well as CLRES 2071 and 2072, the research design and development (grant writing) course. There was one participant this year.

- **Training Early Academic Mentors (TEAM) Program.** This is a one-year program designed to increase the knowledge, skills, and practice of mentoring among new mentors, most of whom are junior or early-mid career faculty members. There were eight participants this year.

- **Patient-Centered Outcomes Research (PCOR) K12 Scholars Program.** The PCOR Program is a multidisciplinary, comprehensive, individualized career development K12 program funded by the Agency for Healthcare Research and Quality. The program is designed to provide training in comparative effectiveness research (CER) and PCOR, multidisciplinary mentoring, career guidance, and experiences in the conduct of CER and PCOR.

- **Research Education in Advancing Investigative Careers for Housestaff and Fellows (REACH) Program.** REACH is an intensive eight-week program designed to teach fundamental skills of clinical research to physicians in UPMC-affiliated residency and fellowship programs.

- **Expanding National Capacity in PCOR through Training (ENACT) Program.** ENACT forms collaborations with minority-serving institutions, provides basic advanced and experimental training in PCOR methods, sponsors a one-year fellowship to immerse fellows in multidisciplinary relationships for investigators completing the training, and enhances long-term PCOR infrastructure at partnering institutions by developing a leadership circle with former ENACT fellows.

**Goals for Fiscal Year 2016**

- Successfully compete for the renewal of the Clinical and Translational Science Award education core, KL2, and TL1
- Successfully offer our summer core courses online and expand this model to other courses
- Expand programs for underrepresented minorities to further diversity the workforce
# RESIDENTS AND CLINICAL FELLOWS BY DIVISION

## RESIDENTS

<table>
<thead>
<tr>
<th>Department</th>
<th>Length of Program</th>
<th>FY 2003 (a) (Base Year)</th>
<th>FY 2014</th>
<th>FY 2015</th>
<th>FY 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residents - UPMC PUH/SHY</td>
<td>3 years</td>
<td>132</td>
<td>121</td>
<td>115</td>
<td>160</td>
</tr>
<tr>
<td>Residents - UPMC Med/Peds</td>
<td>4 years</td>
<td>-</td>
<td>16</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Residents - UPMC PUH</td>
<td>1 year</td>
<td>-</td>
<td>22</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>Residents - UPMC SHY</td>
<td>3 years</td>
<td>70</td>
<td>36</td>
<td>36 (Fully Integrated) 0</td>
<td></td>
</tr>
<tr>
<td>Residents - UPMC SHY</td>
<td>1 year</td>
<td>-</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>202</td>
<td>200</td>
<td>196</td>
</tr>
</tbody>
</table>

(a) Includes Residents from St. Francis Health System Program.

Prepared by: Department of Medicine, Office of Education.

## FELLOWS

<table>
<thead>
<tr>
<th>Fellowships by Division</th>
<th>Length of Program</th>
<th>FY 2013</th>
<th>FY 2014</th>
<th>FY 2015</th>
<th>FY 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiology</td>
<td>3 years</td>
<td>30</td>
<td>32</td>
<td>29</td>
<td>28</td>
</tr>
<tr>
<td>Interventional and Advanced Interventional</td>
<td>1 year</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Electrophysiology and Advanced Electrophysiology</td>
<td>Heart Failure and Transplant</td>
<td>1 year</td>
<td>4</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Endocrinology</td>
<td>2 years</td>
<td>12</td>
<td>11</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Gastroenterology</td>
<td>3 years</td>
<td>19</td>
<td>19</td>
<td>19</td>
<td>18</td>
</tr>
<tr>
<td>General Medicine (non ACGME)</td>
<td>2 years</td>
<td>4</td>
<td>5</td>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>Geriatric Medicine</td>
<td>1 year</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Hematology/Oncology</td>
<td>3 years</td>
<td>22</td>
<td>24</td>
<td>24</td>
<td>22</td>
</tr>
<tr>
<td>Hospice &amp; Palliative Medicine</td>
<td>1 year</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Infectious Diseases</td>
<td>2 years</td>
<td>9</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Pulmonary</td>
<td>3 years</td>
<td>20</td>
<td>22</td>
<td>20</td>
<td>21</td>
</tr>
<tr>
<td>Sleep Medicine</td>
<td>1 year</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Renal-Electrolyte</td>
<td>Up to 3 years</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Rheumatology</td>
<td>2 years</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Transplantation Medicine</td>
<td>1 year</td>
<td>-</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Pulmonary</td>
<td></td>
<td>-</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Renal</td>
<td></td>
<td>-</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>148</td>
<td>157</td>
<td>154</td>
<td>151</td>
</tr>
</tbody>
</table>

Prepared by: Department of Medicine, Office of Education.

http://www.dom.pitt.edu/Training.html
## EDUCATIONAL CREDIT UNITS BY DIVISION

Fiscal Year 2016 ECUs Used to Allocate Fiscal Year 2017 Budget

<table>
<thead>
<tr>
<th>Division</th>
<th>Individual ECU's</th>
<th>Allocated ECU's</th>
<th>Total ECUs ECU's</th>
<th>Dollars ECU dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiology</td>
<td>1,417.5</td>
<td>62.0</td>
<td>1,479.5</td>
<td>138,377</td>
</tr>
<tr>
<td>Chair</td>
<td>913.2</td>
<td>70.0</td>
<td>983.2</td>
<td>91,958</td>
</tr>
<tr>
<td>Endocrinology</td>
<td>602.2</td>
<td>25.0</td>
<td>627.2</td>
<td>58,662</td>
</tr>
<tr>
<td>Gastroenterology</td>
<td>850.3</td>
<td>8.0</td>
<td>858.3</td>
<td>80,276</td>
</tr>
<tr>
<td>General Medicine</td>
<td>10,635.0</td>
<td>4,939.0</td>
<td>15,574.0</td>
<td>1,456,630</td>
</tr>
<tr>
<td>Geriatric Medicine</td>
<td>721.8</td>
<td>5.0</td>
<td>726.8</td>
<td>67,977</td>
</tr>
<tr>
<td>Hematology Oncology</td>
<td>1,104.5</td>
<td>326.0</td>
<td>1,430.5</td>
<td>133,794</td>
</tr>
<tr>
<td>Infectious Diseases</td>
<td>1,008.0</td>
<td>507.8</td>
<td>1,515.8</td>
<td>141,772</td>
</tr>
<tr>
<td>Pulmonary</td>
<td>2,041.4</td>
<td>328.0</td>
<td>2,369.4</td>
<td>221,609</td>
</tr>
<tr>
<td>Renal</td>
<td>1,444.2</td>
<td>594.0</td>
<td>2,038.2</td>
<td>190,632</td>
</tr>
<tr>
<td>Rheumatology</td>
<td>902.0</td>
<td>387.0</td>
<td>1,289.0</td>
<td>120,560</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>21,640.1</strong></td>
<td><strong>7,251.8</strong></td>
<td><strong>28,891.9</strong></td>
<td><strong>2,702,247</strong></td>
</tr>
</tbody>
</table>
**MEDICINE HOUSESTAFF – 2015-2016**

### Chief Medical Residents

<table>
<thead>
<tr>
<th>Name</th>
<th>Medical School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anderson</td>
<td>Timothy Case Western Reserve University School of Medicine</td>
</tr>
<tr>
<td>Bonifacino</td>
<td>Eliana University of Pittsburgh School of Medicine</td>
</tr>
<tr>
<td>Carter</td>
<td>Andrea Northwestern University, The Feinberg School of Medicine</td>
</tr>
<tr>
<td>Webb</td>
<td>Camille Universidad Peruana Cayetano Heredia</td>
</tr>
</tbody>
</table>

*VA Chief Resident for Quality and Safety*

<table>
<thead>
<tr>
<th>Name</th>
<th>Medical School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walk</td>
<td>TJ Drexel University College of Medicine</td>
</tr>
</tbody>
</table>

### PGY 1 - Categorical

<table>
<thead>
<tr>
<th>Name</th>
<th>Medical School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abrahamyan</td>
<td>Ani The Chicago Medical School at Rosalind Franklin University of Medicine and Science</td>
</tr>
<tr>
<td>Ajayi-Fox</td>
<td>Patricia Sidney Kimmel Medical College at Thomas Jefferson University</td>
</tr>
<tr>
<td>Andreev</td>
<td>Aleksandr Saint Petersburg State University Faculty of Medicine</td>
</tr>
<tr>
<td>Apostolidis</td>
<td>Sokratis University of Athens School of Health Sciences</td>
</tr>
<tr>
<td>Bahagry</td>
<td>Samira East Virginia Medical School</td>
</tr>
<tr>
<td>Banks</td>
<td>Mary Case Western Reserve University School of Medicine</td>
</tr>
<tr>
<td>Cashion</td>
<td>Winn Emory University School of Medicine</td>
</tr>
<tr>
<td>Chang</td>
<td>Zieanna University of Michigan Medical School</td>
</tr>
<tr>
<td>Cheng</td>
<td>Andy Boston University School of Medicine</td>
</tr>
<tr>
<td>Cheng</td>
<td>Debbie University of Michigan Medical School</td>
</tr>
<tr>
<td>Chin</td>
<td>Katherine University of Pittsburgh School of Medicine</td>
</tr>
<tr>
<td>Filardo</td>
<td>Brendan University at Buffalo State University of New York School of Medicine &amp; Biomedical Sciences</td>
</tr>
<tr>
<td>Fox</td>
<td>Steven Sidney Kimmel Medical College at Thomas Jefferson University</td>
</tr>
<tr>
<td>Hudak</td>
<td>Stephen University of Pittsburgh School of Medicine</td>
</tr>
<tr>
<td>Jochum</td>
<td>John University of Pittsburgh School of Medicine</td>
</tr>
<tr>
<td>Kanakis</td>
<td>Allison New York Medical College</td>
</tr>
<tr>
<td>Kensler</td>
<td>Caroline University of Pittsburgh School of Medicine</td>
</tr>
<tr>
<td>Koczo</td>
<td>Agnes Virginia Commonwealth University School of Medicine</td>
</tr>
<tr>
<td>Koh</td>
<td>Shannon Vanderbilt University School of Medicine</td>
</tr>
<tr>
<td>Kuang</td>
<td>Chaoyuan University of Michigan Medical School</td>
</tr>
<tr>
<td>Kurin</td>
<td>Michael Albert Einstein College of Medicine of Yeshiva University</td>
</tr>
<tr>
<td>Kyle (Roper)</td>
<td>Jillian George Washington University School of Medicine and Health Sciences</td>
</tr>
<tr>
<td>Li</td>
<td>Allen University of Pittsburgh School of Medicine</td>
</tr>
<tr>
<td>Li</td>
<td>Meng Peking Union Medical University</td>
</tr>
<tr>
<td>Lontos</td>
<td>Konstantinos University of Athens School of Health Sciences</td>
</tr>
<tr>
<td>Lu</td>
<td>Bonnie University of Pittsburgh School of Medicine</td>
</tr>
<tr>
<td>Lucas</td>
<td>Aaron West Virginia University School of Medicine Morgantown</td>
</tr>
<tr>
<td>Name</td>
<td>Medical School</td>
</tr>
<tr>
<td>-----------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Mahmud Reshad</td>
<td>Albany Medical College</td>
</tr>
<tr>
<td>Miller Jaime</td>
<td>University of Virginia School of Medicine</td>
</tr>
<tr>
<td>Nasrazadani Azadeh</td>
<td>Texas Tech University Health Sciences Center Paul L. Foster School of Medicine</td>
</tr>
<tr>
<td>Nolen Brian</td>
<td>University of Pittsburgh School of Medicine</td>
</tr>
<tr>
<td>Pai Sarah</td>
<td>George Washington University School of Medicine and Health Sciences</td>
</tr>
<tr>
<td>Park Peter</td>
<td>University of Michigan Medical School</td>
</tr>
<tr>
<td>Patel Krupa</td>
<td>University of Missouri—Kansas City School of Medicine</td>
</tr>
<tr>
<td>Pitcher Jonathan</td>
<td>Drexel University College of Medicine</td>
</tr>
<tr>
<td>Rao Anjali</td>
<td>University of Pittsburgh School of Medicine</td>
</tr>
<tr>
<td>Robertson Thomas</td>
<td>University of Maryland School of Medicine</td>
</tr>
<tr>
<td>Rocco Joseph</td>
<td>University of Pittsburgh School of Medicine</td>
</tr>
<tr>
<td>Rodriguez Jennifer</td>
<td>Baylor College of Medicine</td>
</tr>
<tr>
<td>Salehi Omran Sina</td>
<td>Vanderbilt University School of Medicine</td>
</tr>
<tr>
<td>Samberg Diana</td>
<td>University of Pittsburgh School of Medicine</td>
</tr>
<tr>
<td>Sather Matthew</td>
<td>University of Washington School of Medicine</td>
</tr>
<tr>
<td>Shangguan Siyi</td>
<td>Peking University Health Science Center</td>
</tr>
<tr>
<td>Shpilsky Daniel</td>
<td>Temple University School of Medicine</td>
</tr>
<tr>
<td>Teng Alexander</td>
<td>Tufts University School of Medicine</td>
</tr>
<tr>
<td>Thant Mamie</td>
<td>University of Pittsburgh School of Medicine</td>
</tr>
<tr>
<td>Waheed Anam</td>
<td>Aqa Khan University Medical College</td>
</tr>
<tr>
<td>Zhuang Eileen</td>
<td>Case Western Reserve University School of Medicine</td>
</tr>
<tr>
<td>Zupa Margaret</td>
<td>University at Buffalo State University of New York School of Medicine &amp; Biomedical Sciences</td>
</tr>
</tbody>
</table>

**PGY 1 - Osteopathic**

<table>
<thead>
<tr>
<th>Name</th>
<th>Medical School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gable Michele</td>
<td>Lake Erie College of Osteopathic Medicine</td>
</tr>
<tr>
<td>Kakar Shelly</td>
<td>West Virginia School of Osteopathic Medicine</td>
</tr>
<tr>
<td>Rahman Farah</td>
<td>Philadelphia College of Osteopathic Medicine</td>
</tr>
<tr>
<td>Umakanthan Sinthana</td>
<td>Lake Erie College of Osteopathic Medicine</td>
</tr>
<tr>
<td>Gable Michele</td>
<td>Lake Erie College of Osteopathic Medicine</td>
</tr>
</tbody>
</table>

**PGY 1 - Preliminary**

<table>
<thead>
<tr>
<th>Name</th>
<th>Medical School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Binks Joshua</td>
<td>University of Pittsburgh School of Medicine</td>
</tr>
<tr>
<td>Haas Matthew</td>
<td>University of Pittsburgh School of Medicine</td>
</tr>
<tr>
<td>Kang John</td>
<td>University of Pittsburgh School of Medicine</td>
</tr>
<tr>
<td>Magnelli Laura</td>
<td>Drexel University College of Medicine</td>
</tr>
<tr>
<td>Moreau Jacqueline</td>
<td>University of Pittsburgh School of Medicine</td>
</tr>
<tr>
<td>Sink Jacquelyn</td>
<td>University of Pittsburgh School of Medicine</td>
</tr>
<tr>
<td>Staffaroni Andrew</td>
<td>Georgetown University School of Medicine</td>
</tr>
<tr>
<td>Yuan Xiaoning</td>
<td>Columbia University College of Physicians and Surgeons</td>
</tr>
</tbody>
</table>

Department of Medicine  [http://www.dom.pitt.edu/Training.html](http://www.dom.pitt.edu/Training.html)
### PGY 1 – Neurology - Preliminary

<table>
<thead>
<tr>
<th>Name</th>
<th>Medical School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elmore</td>
<td>Kevin, University of Illinois College of Medicine</td>
</tr>
<tr>
<td>Isfort</td>
<td>Michael, Ohio State University College of Medicine</td>
</tr>
<tr>
<td>Kyrtos</td>
<td>Christina, Pennsylvania State University College of Medicine</td>
</tr>
<tr>
<td>Moshayedi</td>
<td>Pouya, Tehran University of Medical Sciences</td>
</tr>
<tr>
<td>Nayak</td>
<td>Shreya, Ohio State University College of Medicine</td>
</tr>
<tr>
<td>Pilato</td>
<td>Madison, University of Rochester School of Medicine and Dentistry</td>
</tr>
<tr>
<td>Sun</td>
<td>Ying, Chicago Medical School at Rosalind Franklin University of Medicine &amp; Science</td>
</tr>
</tbody>
</table>

### PGY 1 – Transitional, Presbyterian (PUH)

<table>
<thead>
<tr>
<th>Name</th>
<th>Medical School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Badalucco</td>
<td>Christopher, University of Connecticut School of Medicine</td>
</tr>
<tr>
<td>Bartels</td>
<td>Steven, University of Illinois College of Medicine</td>
</tr>
<tr>
<td>Dressen</td>
<td>Michael, New York Medical College</td>
</tr>
<tr>
<td>Iheagwara</td>
<td>Uzoma, University of Pittsburgh School of Medicine</td>
</tr>
<tr>
<td>Rhieu</td>
<td>Byung Han, University of Pittsburgh School of Medicine</td>
</tr>
<tr>
<td>Sun</td>
<td>Ellen, University of Pittsburgh School of Medicine</td>
</tr>
<tr>
<td>Taubenslag</td>
<td>Kenneth, Vanderbilt University School of Medicine</td>
</tr>
<tr>
<td>Zhou</td>
<td>Siwei, University of Pittsburgh School of Medicine</td>
</tr>
</tbody>
</table>

### PGY 1 – Transitional, Shadyside (SHY)

<table>
<thead>
<tr>
<th>Name</th>
<th>Medical School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bollino</td>
<td>Gideon, University of Maryland School of Medicine</td>
</tr>
<tr>
<td>Dulmage</td>
<td>Brittany, University of Pittsburgh School of Medicine</td>
</tr>
<tr>
<td>Gabani</td>
<td>Prashant, Temple University School of Medicine</td>
</tr>
<tr>
<td>Grubb</td>
<td>William, University of Miami Leonard M. Miller School of Medicine</td>
</tr>
<tr>
<td>Ling</td>
<td>Diane, University of Pittsburgh School of Medicine</td>
</tr>
<tr>
<td>Srivistava</td>
<td>Bharat, University of Pittsburgh School of Medicine</td>
</tr>
</tbody>
</table>

### PGY 1 – Internal Medicine, Pediatrics

<table>
<thead>
<tr>
<th>Name</th>
<th>Medical School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Holt</td>
<td>Stephanie, University of Pittsburgh School of Medicine</td>
</tr>
<tr>
<td>Langmann</td>
<td>Gabrielle, University of Pittsburgh School of Medicine</td>
</tr>
<tr>
<td>Taylor-Mims</td>
<td>Catherine, University of Texas Medical School at Houston</td>
</tr>
<tr>
<td>Wolf</td>
<td>Rachel, Vanderbilt University School of Medicine</td>
</tr>
</tbody>
</table>
### PGY 2 – Categorical

<table>
<thead>
<tr>
<th>Name</th>
<th>Medical School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agonafer</td>
<td>UCLA/Drew Medical Education Program</td>
</tr>
<tr>
<td>Akshintala</td>
<td>Andhra Medical College</td>
</tr>
<tr>
<td>Arnold</td>
<td>Mount Sinai School of Medicine</td>
</tr>
<tr>
<td>Arnold</td>
<td>Wayne State University School of Medicine</td>
</tr>
<tr>
<td>Bagenski</td>
<td>Albany Medical College</td>
</tr>
<tr>
<td>Camiolo</td>
<td>State University of New York - Stony Brooks School of Medicine</td>
</tr>
<tr>
<td>Chang</td>
<td>Stanford University School of Medicine</td>
</tr>
<tr>
<td>Chen</td>
<td>University of Pittsburgh School of Medicine</td>
</tr>
<tr>
<td>Dhamija</td>
<td>The University of Toledo College of Medicine</td>
</tr>
<tr>
<td>Grace</td>
<td>University of California - San Diego School of Medicine</td>
</tr>
<tr>
<td>Guhl</td>
<td>University of Chicago Division of the Biological Sciences The Pritzker School of Medicine</td>
</tr>
<tr>
<td>Heiss</td>
<td>University of Maryland School of Medicine</td>
</tr>
<tr>
<td>Jacobs</td>
<td>Oregon Health &amp; Science University School of Medicine</td>
</tr>
<tr>
<td>Kanth</td>
<td>University of Virginia School of Medicine</td>
</tr>
<tr>
<td>Kassim</td>
<td>Vanderbilt University School of Medicine</td>
</tr>
<tr>
<td>Kennedy</td>
<td>University of Washington School of Medicine</td>
</tr>
<tr>
<td>Khalil</td>
<td>George Washington University School of Medicine and Health Sciences</td>
</tr>
<tr>
<td>Klein</td>
<td>University of Rochester School of Medicine and Dentistry</td>
</tr>
<tr>
<td>Kota</td>
<td>State University of New York Upstate Medical</td>
</tr>
<tr>
<td>Kumar</td>
<td>Case Western Reserve University School of Medicine</td>
</tr>
<tr>
<td>Ladejobi</td>
<td>University of Lagos</td>
</tr>
<tr>
<td>Lang</td>
<td>West Virginia School of Osteopathic Medicine</td>
</tr>
<tr>
<td>Lima</td>
<td>Universidade Federal do Ceara</td>
</tr>
<tr>
<td>Lin</td>
<td>Pennsylvania State University College of Medicine</td>
</tr>
<tr>
<td>Lu</td>
<td>University of Pittsburgh School of Medicine</td>
</tr>
<tr>
<td>Machin</td>
<td>University of New England College of Osteopathic Medicine</td>
</tr>
<tr>
<td>Maciak</td>
<td>Philadelphia College of Osteopathic Medicine</td>
</tr>
<tr>
<td>Manzo</td>
<td>Loyola University Chicago Stritch School of Medicine</td>
</tr>
<tr>
<td>Marino</td>
<td>George Washington University School of Medicine and Health Sciences</td>
</tr>
<tr>
<td>Merkhofer</td>
<td>University of Wisconsin School of Medicine and Public Health</td>
</tr>
<tr>
<td>Metter</td>
<td>University of Pittsburgh School of Medicine</td>
</tr>
<tr>
<td>Moghe</td>
<td>Seth G.S. Medical College</td>
</tr>
<tr>
<td>Mosch</td>
<td>The Commonwealth Medical College</td>
</tr>
<tr>
<td>Murali</td>
<td>Northeast Ohio Medical University</td>
</tr>
<tr>
<td>Patel</td>
<td>The Chicago Medical School at Rosalind Franklin University of Medicine and Science</td>
</tr>
<tr>
<td>Pessu</td>
<td>Howard University College of Medicine</td>
</tr>
<tr>
<td>Puri</td>
<td>University of South Alabama College of Medicine</td>
</tr>
<tr>
<td>Rahman</td>
<td>Philadelphia College of Osteopathic Medicine</td>
</tr>
<tr>
<td>Rajagopal</td>
<td>Columbia University College of Physicians and Surgeons</td>
</tr>
<tr>
<td>Riad</td>
<td>University of Chicago Division of the Biological Sciences The Pritzker School of Medicine</td>
</tr>
</tbody>
</table>

[http://www.dom.pitt.edu/Training.html](http://www.dom.pitt.edu/Training.html)
<table>
<thead>
<tr>
<th>Name</th>
<th>Medical School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boggs</td>
<td>Case Western Reserve University School of Medicine</td>
</tr>
<tr>
<td>Hartog</td>
<td>University of Pittsburgh School of Medicine</td>
</tr>
<tr>
<td>Robins</td>
<td>Eastern Virginia Medical School</td>
</tr>
<tr>
<td>Vissa</td>
<td>SUNY Downstate Medical Center</td>
</tr>
</tbody>
</table>

**PGY 3 – Categorical**

<table>
<thead>
<tr>
<th>Name</th>
<th>Medical School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abu Daya</td>
<td>American University of Beirut</td>
</tr>
<tr>
<td>Achkar</td>
<td>American University of Beirut</td>
</tr>
<tr>
<td>Affum</td>
<td>University of Maryland School of Medicine</td>
</tr>
<tr>
<td>Akinseye-Affum</td>
<td>University of Maryland School of Medicine</td>
</tr>
<tr>
<td>Ali</td>
<td>Allama Iqbal Medical College</td>
</tr>
<tr>
<td>Allenbaugh</td>
<td>New York Medical College</td>
</tr>
<tr>
<td>Balakumar</td>
<td>Stanley Medical College</td>
</tr>
<tr>
<td>Barnett-Miller</td>
<td>Philadelphia College of Osteopathic Medicine</td>
</tr>
<tr>
<td>Belsches</td>
<td>University of Alabama School of Medicine</td>
</tr>
<tr>
<td>Bhagya Rao</td>
<td>Jawaharlal Institute of Post-Graduate Medicine &amp; Research</td>
</tr>
<tr>
<td>Bhattacharya</td>
<td>Kakatiya Medical College</td>
</tr>
<tr>
<td>Cater</td>
<td>Lerner-Case Western Reserve University School of Medicine</td>
</tr>
<tr>
<td>Challa</td>
<td>Gondar College of Medical Sciences</td>
</tr>
<tr>
<td>Chao</td>
<td>University of Pittsburgh School of Medicine</td>
</tr>
<tr>
<td>Chedid</td>
<td>American University of Beirut</td>
</tr>
<tr>
<td>Countouris</td>
<td>University of Pittsburgh School of Medicine</td>
</tr>
<tr>
<td>D’Avella</td>
<td>George Washington University School of Medicine and Health Sciences</td>
</tr>
<tr>
<td>Name</td>
<td>School</td>
</tr>
<tr>
<td>---------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>Duca Nicholas</td>
<td>Drexel University College of Medicine</td>
</tr>
<tr>
<td>Eden Elizabeth</td>
<td>University of Maryland School of Medicine</td>
</tr>
<tr>
<td>Fisher Molly</td>
<td>University of Colorado Denver School of Medicine</td>
</tr>
<tr>
<td>Grace Jon</td>
<td>University of California, San Diego School of Medicine</td>
</tr>
<tr>
<td>Gunturi Nivedita</td>
<td>Sri Ramachandra Medical College</td>
</tr>
<tr>
<td>Hanna Reem</td>
<td>University of Pittsburgh School of Medicine</td>
</tr>
<tr>
<td>Hurtado M. Daniela</td>
<td>Pontificia Universidad Catolica del Ecuador</td>
</tr>
<tr>
<td>Jantea Rachel</td>
<td>Baylor College of Medicine</td>
</tr>
<tr>
<td>Jimenez-Gutierrez Elena</td>
<td>University of Virginia School of Medicine</td>
</tr>
<tr>
<td>Jones Sarah</td>
<td>University of Nebraska College of Medicine</td>
</tr>
<tr>
<td>Jun Hyejo</td>
<td>Tufts University School of Medicine</td>
</tr>
<tr>
<td>Karmo Stephanie</td>
<td>University of Michigan Medical School</td>
</tr>
<tr>
<td>Klaus Leigh</td>
<td>Baylor College of Medicine</td>
</tr>
<tr>
<td>Klinge Matthew</td>
<td>Jefferson Medical College of Thomas Jefferson University</td>
</tr>
<tr>
<td>Lantz-Simcik Rebecca</td>
<td>Philadelphia College of Osteopathic Medicine</td>
</tr>
<tr>
<td>Lyons Anita</td>
<td>The Raymond and Ruth Perelman School of Medicine at the University of Pennsylvania</td>
</tr>
<tr>
<td>Ma Jing-Yuan</td>
<td>University of Alabama School of Medicine</td>
</tr>
<tr>
<td>Ma Nicholas</td>
<td>Northwestern University The Feinberg School of Medicine</td>
</tr>
<tr>
<td>McDonald Shene</td>
<td>University of Maryland School of Medicine</td>
</tr>
<tr>
<td>Mehta Kathan</td>
<td>B.J. Medical College</td>
</tr>
<tr>
<td>Morris Jacqueline</td>
<td>New York College of Osteopathic Medicine</td>
</tr>
<tr>
<td>Nayak Aditi</td>
<td>Armed Forces Medical College</td>
</tr>
<tr>
<td>Nguyen Daniel</td>
<td>University of Florida College of Medicine</td>
</tr>
<tr>
<td>Pae Derek</td>
<td>University of Virginia School of Medicine</td>
</tr>
<tr>
<td>Pinilla Vera Miguel</td>
<td>Pontificia Universidad Javeriana</td>
</tr>
<tr>
<td>Rhinehart Zachary</td>
<td>University of Pittsburgh School of Medicine</td>
</tr>
<tr>
<td>Richard Chadwick</td>
<td>Baylor College of Medicine</td>
</tr>
<tr>
<td>Riley Craig</td>
<td>University of Pittsburgh School of Medicine</td>
</tr>
<tr>
<td>Robbins Jonathan</td>
<td>University of California San Francisco School of Medicine</td>
</tr>
<tr>
<td>Seth Nikhil</td>
<td>Northwestern University The Feinberg School of Medicine</td>
</tr>
<tr>
<td>Sheth Siddharth</td>
<td>Lake Erie College of Osteopathic Medicine</td>
</tr>
<tr>
<td>Somasundaram Aswin</td>
<td>University of Texas Southwestern Medical Center at Dallas Southwestern Medical School</td>
</tr>
<tr>
<td>Spada Neal</td>
<td>University of Pittsburgh School of Medicine</td>
</tr>
<tr>
<td>Sprague Benjamin</td>
<td>University of Pittsburgh School of Medicine</td>
</tr>
<tr>
<td>Trifan Andrew</td>
<td>Drexel University College of Medicine</td>
</tr>
<tr>
<td>Trybula Michael</td>
<td>Indiana University School of Medicine</td>
</tr>
<tr>
<td>Udawatta Viyan</td>
<td>University of Chicago Division of the Biological Sciences The Pritzker School of Medicine</td>
</tr>
</tbody>
</table>
### PGY 3 – *Internal Medicine, Pediatrics*

<table>
<thead>
<tr>
<th>Name</th>
<th>Medical School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hensley</td>
<td>Matthew University of Kentucky College of Medicine</td>
</tr>
<tr>
<td>Mackell</td>
<td>Christina University of Cincinnati College of Medicine</td>
</tr>
<tr>
<td>Pacheco</td>
<td>Carlos Meharry Medical College</td>
</tr>
<tr>
<td>Stygles</td>
<td>Nicholas University of Virginia School of Medicine</td>
</tr>
</tbody>
</table>

### PGY 4 – *Internal Medicine, Pediatrics*

<table>
<thead>
<tr>
<th>Name</th>
<th>Medical School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Israelsen</td>
<td>Ryan The University of Utah School of Medicine</td>
</tr>
<tr>
<td>Pater</td>
<td>Colleen University of Cincinnati College of Medicine</td>
</tr>
<tr>
<td>Rabold</td>
<td>Elizabeth University of North Carolina, Chapel Hill, School of Medicine</td>
</tr>
<tr>
<td>Yu</td>
<td>Justin Temple University School of Medicine</td>
</tr>
</tbody>
</table>
## DEPARTING MEDICAL RESIDENTS – 2015-2016

### Chief Medical Residents

<table>
<thead>
<tr>
<th>Name</th>
<th>Current Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anderson</td>
<td>Timothy, Case Western Reserve University School of Medicine</td>
</tr>
<tr>
<td>Bonifacino</td>
<td>Eliana, University of Pittsburgh School of Medicine</td>
</tr>
<tr>
<td>Carter</td>
<td>Andrea, Northwestern University, The Feinberg School of Medicine</td>
</tr>
<tr>
<td>Webb</td>
<td>Camille, Universidad Peruana Cayetano Heredia</td>
</tr>
</tbody>
</table>

*VA Chief Resident for Quality and Safety*

<table>
<thead>
<tr>
<th>Name</th>
<th>Current Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walk</td>
<td>TJ, Drexel University College of Medicine</td>
</tr>
</tbody>
</table>

### Internal Medicine Residents

<table>
<thead>
<tr>
<th>Name</th>
<th>Current Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abu Daya</td>
<td>Hussein, University of Alabama Medical Center, Cardiology Fellowship</td>
</tr>
<tr>
<td>Achkar</td>
<td>Tala, Hematology/Oncology Fellowship, UPMC</td>
</tr>
<tr>
<td>Affum</td>
<td>Kevin, Hospitalist, UPMC</td>
</tr>
<tr>
<td>Akinseye-Novlette</td>
<td>Novlette, Hospitalist, UPMC</td>
</tr>
<tr>
<td>Akshintala</td>
<td>Venkata, Gastroenterology Fellowship, Johns Hopkins</td>
</tr>
<tr>
<td>Ali</td>
<td>Hira, Endocrinology Fellowship, UPMC</td>
</tr>
<tr>
<td>Allenbaugh</td>
<td>Jill, General Internal Medicine Fellowship, UPMC</td>
</tr>
<tr>
<td>Balakumar</td>
<td>Vikram, Critical Care Medicine Fellowship, UPMC</td>
</tr>
<tr>
<td>Banks</td>
<td>Mary, University of North Carolina, Chapel Hill Internal Medicine Residency Program PGY 2</td>
</tr>
<tr>
<td>Belsches</td>
<td>Theodore &quot;Ted&quot;, Primary Care Physician, East Liberty Health Center</td>
</tr>
<tr>
<td>Bhagya Rao</td>
<td>Bhavana, Gastroenterology Fellowship, Cleveland Clinic</td>
</tr>
<tr>
<td>Bhattacharya</td>
<td>Abhik, Gastroenterology Fellowship, Cleveland Clinic</td>
</tr>
<tr>
<td>Camiolo</td>
<td>Matthew, Pulmonary/CCM Fellowship, UPMC</td>
</tr>
<tr>
<td>Cater</td>
<td>George, Cardiology Fellowship, UPMC</td>
</tr>
<tr>
<td>Challa</td>
<td>Azariyas, Hospitalist, UPMC McKeesport</td>
</tr>
<tr>
<td>Chao</td>
<td>Yvonne, University of North Carolina, Hematology/Oncology Fellowship</td>
</tr>
<tr>
<td>Chedid</td>
<td>Victor, Gastroenterology Fellowship, Mayo</td>
</tr>
<tr>
<td>Countouris</td>
<td>Malamo, Cardiology Fellowship, UPMC</td>
</tr>
<tr>
<td>D'Avella</td>
<td>Christopher, Chief Medical Resident, UPMC</td>
</tr>
<tr>
<td>Duca</td>
<td>Nicholas, Chief Medical Resident, UPMC</td>
</tr>
<tr>
<td>Eden</td>
<td>Elizabeth, Hospitalist Fellowship, UPMC</td>
</tr>
<tr>
<td>Fisher</td>
<td>Molly, Chief Medical Resident, UPMC</td>
</tr>
<tr>
<td>Gunturi</td>
<td>Nivedita, Hospitalist, UPMC Shadyside</td>
</tr>
<tr>
<td>Hanna</td>
<td>Reem, Hospitalist, UPMC</td>
</tr>
<tr>
<td>Hurtado</td>
<td>Daniela, Endocrinology Fellowship, Mayo</td>
</tr>
<tr>
<td>Jantea</td>
<td>Rachel, Geriatric Fellowship, UPMC</td>
</tr>
</tbody>
</table>

[http://www.dom.pitt.edu/Training.html](http://www.dom.pitt.edu/Training.html)
### Medical Education  
**FY 2015-2016**

**Department of Medicine**  
[http://www.dom.pitt.edu/Training.html](http://www.dom.pitt.edu/Training.html)

<table>
<thead>
<tr>
<th>Name</th>
<th>Current Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jimenez-Gutierrez</td>
<td>Elena Hospitalist, UPMC</td>
</tr>
<tr>
<td>Jones</td>
<td>Sarah Clinical Associate Professor of Medicine, UPMC</td>
</tr>
<tr>
<td>Jun</td>
<td>Hyejo Primary Care Physician, Kaiser Permanente</td>
</tr>
<tr>
<td>Karmo</td>
<td>Stephanie Hospitalist, UPMC Shadyside</td>
</tr>
<tr>
<td>Klingen</td>
<td>Matthew Gastroenterology Fellowship, UPMC</td>
</tr>
<tr>
<td>Lyons</td>
<td>Anita Clinical Instructor of Medicine, UPMC</td>
</tr>
<tr>
<td>Ma</td>
<td>Jing-Yuan “Jimmy” Cardiology Fellowship, Washington Hospital Center - Georgetown/DC</td>
</tr>
<tr>
<td>Macpherson</td>
<td>Nicholas Chief Medical Resident, UPMC</td>
</tr>
<tr>
<td>McDonald</td>
<td>Sherie Pulmonary/CCM Fellowship, Cleveland Clinic</td>
</tr>
<tr>
<td>Mehta</td>
<td>Kathan Hematology/Oncology Fellowship, UPMC</td>
</tr>
<tr>
<td>Miller (Barnett)</td>
<td>Stephanie Hospitalist, UPMC Shadyside</td>
</tr>
<tr>
<td>Morris</td>
<td>Jacqueline University of Rochester, Cardiology Fellowship</td>
</tr>
<tr>
<td>Nayak</td>
<td>Aditi Hospitalist, Albert Einstein</td>
</tr>
<tr>
<td>Nguyen</td>
<td>Daniel University of Maryland, Cardiology Fellowship</td>
</tr>
<tr>
<td>Pae</td>
<td>Derek Vanderbilt University, Academic Hospital</td>
</tr>
<tr>
<td>Pinilla Vera</td>
<td>Miguel Johns Hopkins, Cardiology Fellowship</td>
</tr>
<tr>
<td>Rhinehart</td>
<td>Zachary Cardiology Fellowship, UPMC</td>
</tr>
<tr>
<td>Richard</td>
<td>Chadwick Hospitalist, VA Pittsburgh Health System</td>
</tr>
<tr>
<td>Riley</td>
<td>Craig Pulmonary/CCM Fellowship, UPMC</td>
</tr>
<tr>
<td>Robbins</td>
<td>Jonathan Assistant Professor, Oregon Health &amp; Sciences University</td>
</tr>
<tr>
<td>Sands</td>
<td>Roger “Warren” Gastroenterology Fellowship, UPMC</td>
</tr>
<tr>
<td>Seth</td>
<td>Nikhil Hospitalist, UPMC</td>
</tr>
<tr>
<td>Shaikh</td>
<td>Fyza Johns Hopkins, Hematology/Oncology Fellowship</td>
</tr>
<tr>
<td>Sheth</td>
<td>Siddharth Hematology/Oncology Fellowship, University of North Carolina</td>
</tr>
<tr>
<td>Simcik (Lantz)</td>
<td>Rebecca Primary Care Physician, UPMC CMI - Greater Pittsburgh Medical Associates</td>
</tr>
<tr>
<td>Spada</td>
<td>Neal Hospitalist, UPMC</td>
</tr>
<tr>
<td>Sprague</td>
<td>Benjamin VA Chief Resident in Quality and Patient Safety</td>
</tr>
<tr>
<td>Swartz (Klaus)</td>
<td>Leigh Hospitalist, UPMC</td>
</tr>
<tr>
<td>Trifan</td>
<td>Andrew Hospitalist, UPMC</td>
</tr>
<tr>
<td>Trybula</td>
<td>Michael Hospitalist, UPMC Shadyside</td>
</tr>
<tr>
<td>Udawatta</td>
<td>Vijan Gastroenterology Fellowship, Ohio State University</td>
</tr>
</tbody>
</table>

**Internal Medicine, Pediatric Residents**

<table>
<thead>
<tr>
<th>Name</th>
<th>Current Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Israelsen</td>
<td>Ryan University of Colorado, Allergy &amp; Immunology Fellowship</td>
</tr>
<tr>
<td>Pater</td>
<td>Colleen Pediatric Cardiology Fellowship, Cincinnati Children's Hospital</td>
</tr>
<tr>
<td>Rabold</td>
<td>Elizabeth Preventative Medicine Fellowship, Emory University</td>
</tr>
<tr>
<td>Yu</td>
<td>Justin Hospice and Palliative Care Fellowship, UPMC</td>
</tr>
</tbody>
</table>
### Preliminary Year Residents

<table>
<thead>
<tr>
<th>Name</th>
<th>Current Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Binks</td>
<td>University of Arizona Cancer Center, Radiation Oncology</td>
</tr>
<tr>
<td>Haas</td>
<td>Rehabilitation Institute of Chicago, PM&amp;R</td>
</tr>
<tr>
<td>Kang</td>
<td>University of Rochester, Radiation Oncology</td>
</tr>
<tr>
<td>Magnelli</td>
<td>University of Florida, Gainesville, Radiology</td>
</tr>
<tr>
<td>Moreau</td>
<td>Mass Gen - Dermatology</td>
</tr>
<tr>
<td>Sink</td>
<td>NYMC - Dermatology</td>
</tr>
<tr>
<td>Staffaroni</td>
<td>Christiana Care in Delaware</td>
</tr>
<tr>
<td>Yuan</td>
<td>Columbia/Cornell, PM&amp;R</td>
</tr>
</tbody>
</table>

### Neurology Preliminary Year Residents

<table>
<thead>
<tr>
<th>Name</th>
<th>Current Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elmore</td>
<td>UPMC Neurology</td>
</tr>
<tr>
<td>Isfort</td>
<td>UPMC Neurology</td>
</tr>
<tr>
<td>Kyrtos</td>
<td>UPMC Neurology</td>
</tr>
<tr>
<td>Moshayedi</td>
<td>UPMC Neurology</td>
</tr>
<tr>
<td>Nayak</td>
<td>UPMC Neurology</td>
</tr>
<tr>
<td>Pilato</td>
<td>UPMC Neurology</td>
</tr>
<tr>
<td>Sun</td>
<td>UPMC Neurology</td>
</tr>
</tbody>
</table>

### Transitional Year Medical Residents, Presbyterian (PUH)

<table>
<thead>
<tr>
<th>Name</th>
<th>Current Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Badalucco</td>
<td>UPMC Radiology</td>
</tr>
<tr>
<td>Bartels</td>
<td>UPMC Anesthesiology</td>
</tr>
<tr>
<td>Dressen</td>
<td>UPMC Diagnostic Radiology</td>
</tr>
<tr>
<td>Iheagwara</td>
<td>UPMC Radiation Oncology</td>
</tr>
<tr>
<td>Rhieu</td>
<td>Johns Hopkins Hospital, Radiation Oncology</td>
</tr>
<tr>
<td>Sun</td>
<td>Brigham and Women's Hospital Diagnostic Radiology</td>
</tr>
<tr>
<td>Taubenslag</td>
<td>UPMC Ophthalmology</td>
</tr>
<tr>
<td>Zhou</td>
<td>UPMC Ophthalmology</td>
</tr>
</tbody>
</table>

### Transitional Year Medical Residents, Shadyside (SHY)

<table>
<thead>
<tr>
<th>Name</th>
<th>Current Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bollino</td>
<td>UPMC Diagnostic Radiology</td>
</tr>
<tr>
<td>Dulmage</td>
<td>Northwestern Dermatology</td>
</tr>
<tr>
<td>Gabani</td>
<td>Barnes Jewish Hospital/Washington University St. Louis Radiation Oncology</td>
</tr>
<tr>
<td>Grubb</td>
<td>Case Western Reserve University, Radiation Oncology</td>
</tr>
<tr>
<td>Ling</td>
<td>UPMC Radiation Oncology</td>
</tr>
<tr>
<td>Srivistava</td>
<td>UT Southwestern Radiology</td>
</tr>
</tbody>
</table>

[http://www.dom.pitt.edu/Training.html](http://www.dom.pitt.edu/Training.html)
MEDICAL RESIDENTS SCHOLARLY ACTIVITIES

Awards and Honors


Presentations

Abstracts and Clinical Vignettes


Emmanuelle B. Yecies; Alexander Davis; Baruch Fischhoff; Jonathan Arnold; Jon R. Grace; Andrew Klobuka; Deepika; Mohan; Janel Hanmer. Assessing the Ability of Day Interns to Communicate their Concern of Patient Deterioration Risk to Night Interns in the Understanding Physician Signout Risk Perceptions Study.

Jonathan Arnold; Alexander Davis; Baruch Fischhoff; Jon R. Grace; Andrew Klobuka; Emmanuelle B. Yecies; Deepika Mohan; Janel Hanmer. Human vs. Automated Prediction of Clinical Deterioration: Results from the Understanding Physician Signout Risk Perceptions (UPS) Study.


Munir MB. Althouse AD, Rihal S, Bharat MS, Abu Daya H, Adelstein H, Saba S. Clinical Characteristics and Outcomes between CRT-P and CRT-D in Patients 80 Years or Older. American College of Cardiology, 2016.


Journal Club Presentations


Poster Presentations


D’Avella, Chris. Rahul Parikh, MD, PhD; van Londen GJ. Exploratory Study of the Feasibility of Patient Reported Outcomes Assessment in Metastatic Prostate Cancer Patients undergoing Newly FDA Approved Oral Cancer Therapy, Department of Medicine Research Day, May 2016.

Agonafer EP. "The "No Show" Patient: How to engage the patient who does not come for resident clinic appointments", Medical Education Innovations Poster presentation, Society of General Internal Medicine Conference 2016.


Chedid V, Hashash JG, Vachon A, Rivers CR, Binion DG, Levine AE, Regueiro MD, Szigethy EM. Predictors of depression in outpatients with IBD. University of Pittsburgh Medical Center- Division of Gastroenterology, Pittsburgh, PA, Department of Medicine Research Day 2015.

Vachon A, Hashash JG, Chedid V, Rivers CR, Binion DG, Levine AE, Regueiro MD, Szigethy EM. Predictors of suicidality in outpatients with IBD. University of Pittsburgh Medical Center- Division of Gastroenterology, Pittsburgh, PA, Department of Medicine Research Day 2015.

Grace, Jon R; Alexander Davis; Baruch Fischhoff; Jonathan Arnold; Andrew Klobuka; Emmanuelle B. Yecies; Deepika Mohan; Janel Hanmer. Agree to Disagree—Examining Risk Assessment Convergence in the Understanding Physician Signout Risk Perceptions (UPS) Study

http://www.dom.pitt.edu/Training.html


Mosch BA, Kassim NA, Zupetic J, Kancherla D. From Gastroenteritis to Bilateral Thalamic Hemorrhage: A Case of Thiamine Deficiency in a Non-Alcoholic Patient.

Kassim NA, Althouse AD, Qin D, Leef G, Roberts T, Saba S. Gender Differences in Anticoagulation and Stroke Outcome in Patients with Atrial Fibrillation.


Lyons, Anita. Thuy Bui, Peter Veldkamp. Medical Mysteries of Malawi and Mozambique.


Seth N, Giles J Akhtar J. A Strong Intuition is Much More Powerful than a Weak Test. Diagnostic Error in Medicine. 1st European Conference, Rotterdam, Netherlands

Seth N, Ramos-Rivers C, Regueiro M, Machicado, Eva Szigethy, Marc Schwartz, Swoger J, Baidoo L, Click B, Koutroubakis I, Binion D. A Six Year Natural History Study in Patients with Inflammatory Bowel Disease: Quality of Life after Permanent Ileostomy, Department of Medicine Research Day, UPMC, Pittsburgh, PA

Seth N, Jorge D. Machicado, Miguel Regueiro, Jason Swoger, Jana Hashash, Marc Shwartz, Leonard Baidoo, Arthur Barrie, Eva Szigethy, Michael Dunn, Shiraz Rahim, Claudia Ramos Rivers, David Binion. Quality of Life After Permanent Ileostomy in IBD Patients: A 5-Year Prospective Cohort, American College of Gastroenterology, Honolulu, HI


Shasank, R., Althouse, AD., Rattan, R., Wolfe, J. D., Marroquin, O., Mulukutla, SR., Saba, S., Quadripolar Left Ventricular Leads are less likely to Dislodge or Require Repositioning

Shasank, R., Wolfe, J. D., Althouse, A., Rattan, R., Jain, S., Saba, S. Left Ventricular Lead Related Complications in Quadripolar versus Bipolar Leads

Other Presentations


Bartels, Steve. Are they sick, old, infected or all the above, and what should we do with them? Oral Presentation. Monthly Transitional Year Meeting. May 2016.


Klaus, Leigh. Palliative Chemotherapy: When is enough, enough? Internal Medicine Noon Conference. September 2015


Rhieu, Byung Han. Evaluating for potential fracture in a patient on chronic narcotic pain meds who presents to ER with generalized pain after ground fall. Oral Presentation. Monthly Transitional Year Meeting. 2015

Stygles, Nicholas. What I Learned on the Palliative Care Block, Med-Peds Combined Noon Conference. December 2016

Sommerfeld, Alex. Obstructive Sleep Apnea is Associated with Increased Readmission in CHF Patients. Oral Presentation. UPMC Research Day. May 2016

Sommerfeld, Alex. Malnutrition or Something More Serious? Framing the Case to Arrive at the Correct Diagnosis. Oral Presentation. Society for General Internal Medicine. May 2016

Spada NG. Chief of Medicine Conference. VA Pittsburgh Healthcare System, Pittsburgh, PA, September 16, 2015


Senior Talks


Achkar, Tala, “Prognostication for the Internist.” Senior Talk presented November 18, 2015

Affum, Kevin, “Prostate Cancer Screening.” Senior Talk presented May 4, 2016


Bhagya Rao, Bhavana, “Get Shot or Get Fired: Mandatory influenza vaccination policy for healthcare providers.” Senior Talk presented November 24, 2015

Bhattacharya, Abhik, Cater, George, “Cardiac MRI: The scan, they myth, the legend.” Senior Talk presented April 27, 2016


Chao, Yvonne, “Damned if you do and damned if you don’t: Updates in breast cancer screening.” Senior Talk presented January 13, 2016


Hanna, Reem, “Clinical Care of Women with HIV.” Senior Talk presented January 20, 2016

Hurtado, Maria, “What to eat or not to eat, that is the question!” Senior Talk presented March 30, 2016

Jantea, Rachel, “Going the extra mile for our patients- literally: efficacy of house call programs and home-based primary care for homebound older adults”. Senior Talk presented June 1, 2016

Jimenez-Gutierrez, Elena, “A world free polio: An Attainable Goal?” Senior Talk presented April 13, 2015


Karmo, Stephanie, “The Trouble with T: Andropause.” Senior Talk presented May 18, 2016

Klaus, Leigh, “Palliative Chemotherapy: When is enough enough?” Senior Talk presented September 30, 2015


Ma, Jing-Yuan, “My Eye-Opener (the good kind): Coffee and Cardiovascular Health.” Senior Talk presented December 16, 2015

McDonald, Sherie, “Is there a Doctor on Board? An Overview of Medical Emergencies on Commercial Aircrafts.” Senior Talk presented December 2, 2015

Mehta, Kathan, “Lung Cancer Screening: The Debate Continues.” Senior Talk presented April 6, 2015

Miller, Stephanie, “Crack is Whack: The consequences of cocaine use and how to treat them.” Senior Talk presented April 20, 2016

Morris, Jacqueline, “Pulmonary Hypertension for the Internist.” Senior Talk presented February 17, 2016


Nguyen, Daniel, “Is that an S3 or are you just happy to see me? State of the Physical Exam.” Senior Talk presented March 2, 2016

Pae, Derek, “Physician Burnout: An underappreciated quality indicator and call to action.” Senior Talk presented November 4, 2015

Pinilla Vera, Miguel, “Blood pressure goals for the treatment of hypertension: from SPRINT, back to the past and into the future.” Senior Talk presented March 9, 2016

Richard, Chadwick, “HIV is Getting Old: Why Routine HIV Care Belongs in the General Medicine Clinic.” Senior Talk presented November 11, 2015


Simcik Rebecca, “Restoring the Huddle.” Senior Talk presented October 21, 2015

Spada, Neal, “Multivitamins for Primary Prevention: Examining the Expensive Urine Hypothesis.” Senior Talk presented February 17, 2016

Sprague, Benjamin, “High Value Care—A resident’s reflections from inpatient to clinic.” Senior Talk presented June 1, 201


Trybula, Michael, “Sodium Restriction and Cardiovascular Outcomes: How Low Should We go?.” Senior Talk presented November 18, 2015


Published Case Reports

Kurin M, Wiesen J, Mehta AC. Yellow Nail Syndrome: A Case Report and Review of Treatment Options, PMID: 26257383


Publications


Chang W. Time is Fleeting. The Bridge: The Newsletter for the UPMC Internal Medicine Residency, Fall 2015.


CARDIOLOGY

JOON SUP LEE MD  
Division Chief  
Co-Director, UPMC Heart and Vascular Institute  
Associate Professor, Department of Medicine

During Fiscal Year 2016, the cardiology program achieved continued success in the Heart and Vascular Institute (HVI). The HVI is an integrated clinical program that provides patients with world-class cardiovascular services, including cardiology, cardiac surgery, and vascular surgery. This collaboration solidifies the HVI’s position as the strongest provider of heart and vascular services in Western Pennsylvania, with unparalleled quality, service, and efficiency. FY 2016 achievements of the HVI include:

Quality and operational improvement initiatives:

- Ongoing comprehensive cardiac quality program
- Cardiology clinical trial brochure implementation
- Collaboration with the Division of Cardiac Surgery demonstrated advancement in the treatment of and therapies for advanced heart failure
- Multidisciplinary centers of excellence gained traction, focusing on atrial fibrillation and the treatment of advanced cardiac valve disease
- Ongoing clinical data collection and reporting, clinical outcomes analysis, and consistent research biostatistical analysis
- Partnership with Washington Hospital to provide cardiac surgery services

Continued efforts in partnership with marketing have resulted in the increased visibility and awareness of our services in the Western Pennsylvania market. Additional areas of opportunity have been identified and strategic planning capacities improved.

FY 2016 new faculty appointments included:

- Mike Mathier MD was appointed Associate Director, Remote Monitoring Call Center and Post-Hospital Heart Failure Care Coordination
- Suresh Mulukutla MD was appointed as Chief of the Division of Cardiology, Medicine Service at the VA
- John Pesock MD was appointed Chief of Cardiology Services at Uniontown Hospital
- Beth Piccione MD was appointed Director of Cardiology for the HVI – Northern Territory
- Ravi Ramani MD was appointed Medical Director, Remote Monitoring Call Center and Heart Failure Care Transformation
- Shivdev Rao MD was appointed Vice President of Clinical Innovation at UPMC Enterprises
- Flordelzia Villanueva MD was appointed Vice Chair of Research in the Department of Medicine
- Tim Wong MD MS was appointed Associate Director, Cardiovascular MRI Program
- Prem Soman MD was awarded the Hermann Blumgart Award from the Society of Nuclear Medicine and Molecular Imaging (SNMMI) Cardiovascular Council in recognition of his outstanding achievements in nuclear cardiology and service to the council.
RESEARCH

HVI researchers continue to strive for cutting-edge technologies and treatments to benefit patients. HVI researchers continued a strong tradition of procuring research funding from federal, industry, and foundation sources. The research program’s major strengths center on translational genetics, heart failure, sudden death, molecular imaging, and outcomes research. In addition, there are robust and active cardiology clinical trials that include sponsor initiated drug trials and IDE trials.

HVI physicians continued to present at national and international cardiology meetings, including the American Heart Association, the American College of Cardiology, the Heart Rhythm Society, the American Society of Echocardiography, the American Society for Nuclear Cardiology, Heart Failure Society of America, Transcatheter Cardiovascular Therapeutics (TCT), and the International Society for Heart and Lung Transplantation. Additionally, HVI researchers and physicians published important manuscripts in top cardiovascular journals such as The New England Journal of Medicine, Circulation Research, Circulation, and the Journal of the American College of Cardiology.

Representatives from the HVI continue to hold prominent roles in national and international cardiovascular organizations.

Research awards and other activities include:

- **Recruitment of cardiology researchers:** This year's efforts to recruit Cardiology/VMI research faculty members culminated in the hiring of Drs. Cynthia St. Hilaire, Stephen Chan, Partha Dutta, Dennis Bruemmer, Imad Al-Ghouleh, and Jared Magnani, who joined the University in July, September, October, January, March, and May, respectively. Dr. Magnani’s office is located in the Kaufmann Building where he is establishing the Center for Sleep and Cardiovascular Outcomes. Drs. St. Hilaire, Chan, Dutta, Bruemmer, and Al-Ghouleh have opened labs on the newly renovated 17th floor of the Biomedical Science Tower. Diane Margaria has been hired to serve as their administrative assistant. Our new faculty have been very successful at securing external funding. Grants include:
  - “Regulation of Vascular Calcification by Adenosine Signaling”, (K22), Cynthia St. Hilaire PhD
  - “Iron-Sulfur Deficiency as a Critical Pathogenic Cause of Pulmonary Hypertension”, (R01), Steven Chan MD
  - “Defining the Complex Biology of the miR-130/131 Family in Pulmonary Hypertension”, (R01), Steven Chan MD
  - “Effect of Diabetes on Myelopoiesis and Atherosclerosis”, (R00), Partha Dutta PhD
  - “Epigenetic Regulation of Inflammatory Gene Expression by Telomerase”, (R01), Dennis Bruemmer MD
  - “The Role of Nox1, EBP50, and Ask 1 in Right Ventricular Hypertrophy”, (AHA Scientist Development Grant), Imad Al Ghouleh PhD
  - “Atrial Fibrillation Health Literacy Information Technology Trial”, (Doris Duke Clinical Scientist Development Award), Jared Magnani MD

Department of Medicine  

http://www.dom.pitt.edu/card
"Influenza Vaccine to Effectively Stop Cardio Thoracic Events and Decompensated Heart Failure (INVESTED)\(^\text{a}\). Jared Magnani MD.

- **VMI/HVI Fellows Research Retreat**: This past February, the VMI, in conjunction with the Division of Cardiology, held its third annual fellows retreat, featuring a keynote presentation by Dr. Mukesh Jain of the Cleveland Clinic. With focused presentations by research faculty, new fellows were exposed to potential areas of research while also afforded the opportunity to develop burgeoning mentor-mentee relationships outside of an academic setting. New cardiology trainees had the opportunity to formally present their work and interests, as well as informally socialize with other trainees and faculty during dinner, bowling, and skiing. Spanning two days, the retreat aimed to foster a congenial atmosphere among VMI and HVI fellows and faculty, highlighting the general collaborative spirit of the University of Pittsburgh's medical community. The retreat was held at Seven Springs from February 3-5, 2016.

- **Six new HVI Fellows Grant applications were funded in FY16.**
  - Meshe Chonde MD, "Attenuation of Myocardial Dysfunction after Cardiac Arrest" (Mentor Jonathan Elmer MD)
  - Andrea Elliot MD, "Evaluation of Exogenous Testosterone Therapy on the Coagulation Profile" (Mentors Aref Rahman MD and Harsha Rao MD)
  - Eli Friedman MD, "Cardiovascular Function, Remodeling and Remote Health Tracking in Female College Basketball Players" (Mentors Jon Rittenberger MD, Ron Roth MD, and Aaron Mares MD)
  - Amber Johnson MD, "Understanding and Addressing Disparities in Implantable Cardioverter Defibrillator (ICD) Use at the University of Pittsburgh Medical Center" (Mentors Samir Saba MD and Larissa Myaskovsky PhD)
  - Manling Zhang MD, "Testing of Myocardial GCN5L1 as Protective in Response to Pathological Stress" (Mentor, Iain Scott PhD)

  These fellows will present their research at the FY17 VMI/HVI Research Retreat to be held from February 8-10, 2017.

- **Our T32 application, “Post-Doctoral Training Program in Imaging Sciences in Translational Cardiovascular Research, (PI, Flordeliza Villanueva MD) was funded.** This program aims to train post-doctoral fellows to acquire core competency in imaging technologies across a broad spectrum, to achieve fundamental proficiency in the tools of translational research from basic to clinical investigation, and to use these tools to pursue hypothesis-driven research, with a focus on cardiovascular medicine.

- **John Gorcsan MD received funding from Medtronic Inc. and Hitachi Aloka Medical America, Inc. for proposals titled “Systolic Stretch as a Predictor of Response to Cardiac Resynchronization Therapy Additive to QRS Width” and “Vector Flow Mapping to Characterize Cardiac Mechanics in Heart Failure and Advance Device Therapy”.**

- **Sandeep Jain MD and Kathleen McGtigue MD (General Internal Medicine Division) received an award to serve as Site PIs on a PCORI-funded project, in collaboration with Duke University, titled “Aspirin Dosing: A Patient Centric Trial Assessing Benefits and Long Term Effectiveness (ADAPTABLE)”.

- **Brett Kaufman PhD received funding from Jackson Lab / National Institutes of Health for a project titled “The Jackson Laboratory Nathan Shock Center of Excellence in the Basic Biology of Aging”. Dr. Kaufman and Ana Mora MD (Vascular Medicine Institute) also received funding from the UPMC Stimulating Pittsburgh Research in Geroscience (SPRIG) Pilot Program for a proposal titled “The Role of PINK1 in mtDNA Integrity and Tumorigenesis”.

Department of Medicine  
http://www.dom.pitt.edu/card
• Michael Mathier MD was named Co-Investigator on a U01 funded by NHLBI for a project titled “Network Management Core (NEMO) for the Pulmonary Trials Cooperative (PTC)".

• Charles McTiernan PhD was named as a Co-Investigator on a NHLBI funded P01 titled “Vascular Subphenotypes of Lung Disease, Project 1”.

• John Pacella MS MD received a R01 for his project titled “Microbubble-Mediated Ultrasonic Therapy for Coronary Microvascular Obstruction”.

• Steven Reis MD was named Co-Investigator on two NIA-funded projects titled “Connectomics of Brain Aging and Dementia” and “Imaging Pathophysiology in Aging and Neurodegeneration (Project 2)”.

• Guy Salama PhD received funding on a STTR project, in collaboration with Elex Biotech, LLC., for a proposal titled “Development of Novel Compounds for the Treatment of Atrial Fibrillation”.

• Jeffrey Teuteberg MD was named Co-Investigator on a trial titled “Randomized Evaluation of VAD InterVEntion before Inotropic Therapy (REVIVE-IT) Pilot Trial/Registry Evaluation of Vital Information for VADS in Ambulatory Life (REVIVAL)”.

• Catalin Toma MD received funding from Cleveland Clinic for his role in the project titled “Predictors of Technical Success of Hybrid Approach CTO PCI”.

• Flordeliza Villanueva MD received a R21 award for her proposal titled “Targeted Drug Delivery Using Liposomes, Microbubbles and Ultrasound”.

• Timothy Wong MD was named Co-Investigator on an NHLBI-funded project through Yale University for a project titled “Exercise in Genetic Cardiovascular Conditions”.

**CLINICAL TRIALS**

FY 2016 clinical trials included:

• A clinical evaluation of Absorb™ BVS, the Everolimus Eluting Bioresorbable Vascular Scaffold in the Treatment of Subjects with de novo Native Coronary Artery Lesions

• PARACHUTE IV (PercutAneous Ventricular RestorAtion in Chronic Heart FailUre due to Ischemic HearT DiseasE)

• Medtronic CoreValve™ SURTAVI Trial SURgical Replacement and Transcatheter Aortic Valve Implantation

• Safety & Efficacy of Intramyocardial Injections of Mesenchymal Precursor Cells on Myocardial Function in LVAD Recipients

• DREAM-HF A Double-blind, Randomized, Sham-procedure-controlled, Parallel-group Efficacy and Safety Study of Allogeneic Mesenchymal Precursor Cells (rexlemestrocel-L) in Patients with Chronic Heart Failure Due to Left Ventricular Systolic Dysfunction of Either Ischemic or Nonischemic Etiology
Faculty Research Interests

Evan Adelstein MD
Dr. Adelstein's research interests include the role of cardiac resynchronization therapy in patient populations not studied in large-scale clinical trials, the electromechanical effects of anti-arrhythmic drug therapy, and the uUse of the wearable cardioverter-defibrillator.

Aryan Aiyer MD
Dr. Aiyer's academic interests focus on preventive cardiology with a special interest in novel cardiac risk factors and the use of coronary calcium scoring in the assessment of subclinical atherosclerosis. He is a co-investigator on the Heart SCORE study and also serves as a co-investigator on U01 grant funded by the NIH.

Imad Al Ghouleh PhD
Dr. Al Ghouleh's lab focuses on the study of pulmonary hypertension, a devastating disease that currently has no treatment. An area of particular focus is defining the mechanisms that underlie right ventricular phenotypic changes in this disease. As pulmonary hypertension progresses, extensive remodeling occurs in the blood vessels that comprise the pulmonary circulation, which leads to progressive increases in pulmonary vascular resistance. In turn, this causes pressure overload on the heart's right ventricle (RV), which undergoes remodeling as a result. Initially, RV remodeling is adaptive, but it eventually becomes maladaptive and leads to RV failure. There is very little known about the pathways that drive this process, a fact that Dr. Al Ghouleh's lab wants to change through its research. Their preliminary findings identified a signaling cascade involving the protein ERM binding phosphoprotein 50 (EBP50), also called NHE regulatory factor 1 (NHERF1), in this process. Current research is designed to test this pathway in the RV following pressure overload challenge—and to delineate the upstream and downstream molecules involved. The long-term goal is to translate mechanistic insights into therapeutic strategies aimed at the RV.

William Barrington MD
Dr. Barrington's research interests involve clinical cardiology and electrophysiology. He participates in a variety of clinical studies examining the role of new pharmacologic agents, devices or therapies in the treatment of cardiac arrhythmias.

Raveen Bazaz MD
Dr. Bazaz is initiating innovative animal research with the goal of linking cardiac anatomy, histology, and pathology to function. He is focusing his current efforts on studying the atria (upper chambers of the heart), with plans to eventually the more complex ventricular chambers.

Kathryn Berlacher MD MS
Dr. Berlacher's primary research interest focuses on medical education, specifically innovative curriculum development and outcome-based program development. In addition, she is involved in research surrounding women's cardiology.

Susan Brode MD
Dr. Brode's research focuses evaluating the efficacy and accuracy of newer tools, such as device programmers, as they relate to the follow-up of patients implanted with cardiac devices.

Dennis Bruemmer MD PhD
Dr. Bruemmer's research program centers on the basic investigation of mechanisms underlying tissue remodeling during atherosclerosis and neointima formation. His laboratory is currently investigating the role of telomerase and telomere attrition in obesity, diabetes, and cardiovascular disease. Specifically, he is seeking to to determine the transcriptional mechanisms by which telomere biology impacts cell proliferation and inflammation in diabetes and cardiovascular disease.
João Cavalcante MD
Dr. Cavalcante’s research interests include outcomes research in valvular disease; the interplay of aortic stenosis and comorbidities, including amyloidosis and pulmonary hypertension; and the use of CMR for valvular disease.

Stephen Chan, MD PhD FAHA
Dr. Chan leads a basic science and translational research group that is studying the molecular mechanisms of pulmonary vascular disease and pulmonary hypertension (PH) – an example of an enigmatic disease where reductionist studies have focused primarily on end-stage molecular effectors. To capitalize on the emerging discipline of "network medicine," the group's research uses a combination of network-based bioinformatics and unique experimental reagents derived from genetically altered rodent and human subjects to accelerate systems-wide discovery in PH. The group's published findings were among the first to identify the systems-level functions of microRNAs (miRNAs), which are small, non-coding RNAs that negatively regulate gene expression, as a root cause of PH. Dr. Chen's lab developed novel in silico approaches to analyzing gene network architecture coupled with in vivo experimentation. The results now offer methods to identify persons at risk for PH and to develop therapeutic RNA targets. This work is the cornerstone of the lab's evolving applications of network theory to the discovery of RNA-based origins of human diseases, in general.

Xucai Chen PhD
Dr. Chen's research interests focus on three areas: ultrasound imaging, ultrasound mediated therapy, and ultra-high-speed digital microscopy. Within ultrasound imaging, he focuses on (1) Ultrasound molecular imaging of angiogenesis using vascular endothelial growth factor-conjugated microbubbles and ischemic memory imaging with targeted microbubbles; (2) Novel intravascular ultrasound system (IVUS) for contrast-enhanced imaging of coronary vasa vasorum for quantification of plaque neovascularization during atherosclerosis progression; and (3) Stem cell imaging with ultrasound to track the trafficking of mesenchymal stem cells by uptake of the microbubbles. Regarding ultrasound mediated therapy, Dr. Chen's interests include ultrasound-assisted gene and drug delivery and therapy for cancer and cardiovascular diseases, such as hypertrophic cardiomyopathy. He also studies sonoreperfusion and microvascular reperfusion therapy by using ultrasound and microbubbles to resolve microvascular obstruction post-percutaneous coronary intervention of acute myocardial infarction (AMI).

A High-Speed Digital Microscopy Laboratory has been developed to support the functions of the Pittsburgh Center for Ultrasound Molecular Imaging and Therapeutics. The Center houses the fastest multi-frame digital microscopy laboratory (UPMC Cam, 25 million frames per second, 128 frames) in North America dedicated to biomedical research. When combined with the Acoustics Laboratory, researchers can observe microbubble oscillations when they are exposed to ultrasound energy as well as their interactions with biological cells at very high temporal resolutions. This system is used to investigate mechanisms of ultrasound mediated bioeffects, such as sonoporation for drug delivery and gene transfection for cancer therapy, sonothrombolysis for reperfusion therapy for microvascular obstruction, and the phase transition phenomena for photoacoustic imaging and contrast ultrasound imaging.

Peter Counihan MD
Dr. Counihan investigates the efficacy and safety of erythropoetin and darbopoetin in animal models of ischemia and reperfusion. This research may lead to further therapies in humans to improve clinical outcomes.

Frederick Crock MD
Dr. Crock is involved in research pertaining to the use of echocardiography in percutaneous treatment of valvular disease and atrial fibrillation. (TAVR, MitraClip, Watchman, Lariat, Amplatz devices).

Partha Dutta DVM PhD
Dr. Dutta researches cardiovascular disease, which is the leading cause of death in developed countries. Inflammation aggravates outcome of cardiovascular disease, including atherosclerosis and infarct healing after myocardial infarction (MI). During progression of atherosclerosis, myeloid cells destabilize lipid-rich plaques in the arterial wall and cause
their rupture, thus triggering myocardial infarction and stroke. Survivors of acute coronary syndromes have a high risk of recurrent events for unknown reasons.

Another area of research interest is fate and differentiation of hematopoietic stem and progenitor cells in cardiovascular disease. Hematopoietic stem cells get activated after acute or chronic inflammation and give rise to exaggerated myelopoiesis. However, most hematopoietic stem cells (HSC) are quiescent, and it is currently unknown whether they respond to ischemic organ injury. We identified a CCR2+HSC subset, which has a four-fold higher proliferative rate than CCR2-HSC, as the most upstream contributor to myelopoiesis after myocardial infarction. CCR2+HSC display bias toward the myeloid lineage and dominate the migratory HSC population after myocardial infarction and in steady-state. These data shed new light on the regulation of emergency hematopoiesis after ischemic injury and identify novel therapeutic targets to modulate leukocyte output after myocardial infarction.

William Follansbee MD
Dr. Follansbee’s career focus has been as a clinician-educator, but he has also participated actively in research. Early in his career, his research focused on cardiac involvement in systemic diseases, particularly systemic sclerosis. His research interests in nuclear cardiology were in the application of technologies to study pathophysiology of diseases. In more recent years, his participation in research has been in facilitating projects of colleagues, particularly younger faculty members. The initiative in medical decision making has resulted in multiple national presentations by younger faculty members in the last couple of years.

Rabindra Girdhar MD
Dr. Girdhar’s research interests focus on optimal cardiology management. He is a sub investigator of the following trials: Regulate PCI, Tigris, Absorb III, Excel, Translate, TAO and Silver AMI.

John Gorcsan MD
Dr. Gorcsan has a special interest in quantifying cardiac function using novel echocardiographic imaging technologies and heart-failure patients. He has published extensively in the scientific literature and has been supported by awards from the National Institutes of Health as Principal Investigator. Dr. Gorcsan serves as the International Associate Editor of the European Heart Journal and as Associate Editor of the Journal of Cardiac Failure. He is on the Editorial Boards of the Journal of the American College of Cardiology.

Indrani Halder PhD
Dr. Halder’s research interests include biobehavioral genetics of cardiovascular disease, mind-body interactions in disease states, the genetic basis for racial differences in cardiovascular disease, genetic admixture analysis and admixture mapping; statistical and population genetics of cardiovascular disease, and genome-wide association studies for cardiovascular disease.

Matthew Harinstein MD FACC FASE
Dr. Harinstein’s areas of interest include acute heart failure syndromes, transcatheter aortic valve replacement outcomes, assessment of right ventricular function in liver transplant candidates, cardiac risk assessment of solid organ transplant candidates, clinical trials studying new pharmacologic agents, and assessment of mechanical dyssynchrony with gated SPECT. He also is a reviewer and member of the editorial board of American Journal of Cardiology.

Darla Hess MD
Dr. Hess’s researches the expanding application of noninvasive testing to specific groups of patients.

Sandeep Jain MD
Dr. Jain’s research interests focus on examining the potential triggers and markers for electrical storm in patients with implantable defibrillators by using microarray genetic technology in patients who present with a high burden of ventricular. Dr. Jain also is interested in the role of cardiac resynchronization therapy in patients with narrow-QRS
complexes, with the ultimate goal of expanding the indications for biventricular pacing to larger fractions of heart failure patients who might benefit from it.

**William Katz MD**
Dr. Katz participated in the research study titled “Echocardiography to Predict Recurrent IMR after Surgical Mitral Valve Repair,” an NIH grant with the University of Pennsylvania (2011-2015). He is currently involved in multiple research studies, including the following TAVR aortic valve trials: CoreValve US Pivotal Trial (2011-present), Medtronic SURTAVI Trial TAVR vs Surgical AVR for Moderate Risk Patients (2013-present), Reprise III Boston Scientific Lotus TAVR valve (2014-present), and the St. Jude Portico TAVR valve study (2014-present).

Among his other studies are “COAPT Trial Evaluating MitrClip for Functional Mitral Regurgitation” (2014-present) and “REATA Trial Mitochondrial Disease. Cardiologist subinvestigator reading echoes and EKGs” (2015 to present)

**Brett Kaufman PhD**
Dr. Kaufman's long-standing research interest is to understand the contribution of mtDNA metabolism to disease progression. For 20 years he has been uncovering the fundamental processes that underlie mitochondrial respiratory deficiency with a focus on mtDNA stability and copy number control – processes essential for respiratory function and viability. Dr. Kaufman's major research goals are 1) to define the biochemical events responsible for the maintenance of mtDNA content, 2) to understand how distinct pathways influence mtDNA maintenance, and 3) to understand mechanisms of mtDNA damage and resistance to damage in the context of disease.

**Kang Kim PhD**
Dr. Kim's laboratory seeks to develop and translate state-of-the-art noninvasive imaging technologies to improve disease diagnosis, guide therapeutic strategies, and to evaluate therapeutic efficacy. Its research emphasis is on the development and application of hybrid ultrasound imaging systems that are based on a fundamental understanding of how sound and light interact with soft tissue, and that are capable of assessing their mechanical, compositional, and biological characteristics. Three independent, but related, imaging technologies are under active investigation:

1. Ultrasound elasticity imaging (UEI)/shear wave elasticity imaging (SWEI) non-invasively assesses the global and regional mechanical properties of the soft tissues and organs.
2. Ultrasound Thermal Strain Imaging (TSI) strongly contrasts lipids from the surrounding non-lipid tissues.
3. Photoacoustic Imaging (PAI)/Photoacoustic molecular imaging (PMI) combines laser and ultrasound technologies to detect optical contrast in tissues and to identify specific biomarkers that may enable early detection of disease and its treatment evaluation.

These three imaging modalities may also be combined to provide a more complete characterization of disease. Noninvasive imaging technologies such as these will also be pivotal for preclinical animal studies, significantly reducing animal numbers, variation between subjects, and shortening the study period. Dr. Kim's research team envisions a noninvasive hybrid imaging system, integrating all these technologies into a single bed-side ultrasound platform. This will provide a powerful, safe, and cost-effective adjunct to clinical practice by identifying patients at early stages of disease and improving treatment strategies.

**Joon Lee MD**
Dr. Lee has a specific research interest in the role of gene therapy in cardiovascular disease and has been involved in organizing local and multicenter trials regarding the potential role of this novel therapy in the treatment of coronary disease. Dr. Lee also is also interested in the study of stem cell therapy for cardiovascular disease and is leading efforts, along with the Cardiothoracic Surgery DDivision, in researching this unique form of treatment.
Jared Magnani MD MSc
Dr. Magnani conducts clinical research on the social determinants of health. He has led investigations in the Framingham Heart Study, the ARIC Study, and Health ABC to identify novel risks factors and the social burden associated with atrial fibrillation. He has investigated racial differences in outcomes related to atrial fibrillation. His current support from the Doris Duke Foundation is a Clinical Scientist Development Award to enhance care for individuals with atrial fibrillation by addressing adherence, quality of life, and health care utilization, and is directed toward individuals with low health literacy. He is presently implementing the intervention at the University of Pittsburgh. Dr. Magnani’s commitment to social determinants of health and health literacy are further demonstrated by his present investigations. He initiated an American Heart Association (AHA) writing group for a new statement on health literacy and cardiovascular disease, scheduled for publication in March 2017.

Michael Mathier MD
Dr. Mathier’s research is focused on clinical studies of emerging therapies in heart failure and pulmonary hypertension patients.

Dennis McNamara MD
Dr. McNamara’s research interests center on the impact of genomics on clinical outcomes, and the use of genetic variation for targeting therapeutic interventions. In addition, he is interested in the use of genetic background and biomarker assessment for predicting myocardial recovery in recent onset non-ischemic cardiomyopathy.

Charles McTiernan PhD
Dr. McTiernan’s laboratory studies the molecular basis of cardiac remodeling in heart failure as well as the use of cardiac function, cellular, molecular biology, and microscopic techniques. The lab’s publications have appeared in Circulation Research, Circulation, Journal of the American College of Cardiology, Cardiovascular Research, and PNAS, among others. To date, Dr. McTiernan’s research has covered 4 areas: (1) Proinflammatory cytokines in heart failure. His lab demonstrated that transgenic overexpression of TNF generated a heart failure phenotype resembling that observed in human heart failure. Additional studies examined TNF effects on fibrosis and calcium handling. (2) TIMPs and MMPs in cardiac remodeling. Dr. McTiernan’s team reported that a) altered expression of TIMPs and MMPs occurs in failing human hearts, b) is responsive to mechanical unloading by ventricular assist devices, c) MMP-inhibition limits cardiac remodeling in a murine heart failure model, and d) the profile of TIMP and MMP expression varies with heart failure progression.

George Mendenhall MD
Dr. Mendenhall’s research focuses on the analysis of device signals and electrograms for electrocardiogram reconstruction and arrhythmia prediction. He also researches the development of novel cardiac arrhythmia monitoring technology.

Matthew Muldoon MD MPH
Dr. Muldoon conducts clinical research examining the interface of behavioral and biological risk factors for cardiovascular disease. Cardiovascular risk conveyed by hypertension, lipid disorders, insulin resistance and preclinical atherosclerosis are studied in relation to individual differences in health behaviors (diet and exercise), cognition (attention, working memory, executive function, and impulsivity) and in mood (depression and anxiety). In addition, Dr. Muldoon has tested interventions to treat or prevent hypertension, including prescribed pharmacotherapies and nutritional supplements. His most recent work leverages e-health technologies to help patients self-manage their hypertension. He has lead or co-lead investigations using randomized and double-blind trial design, physiologic and ambulatory recordings, automated and bidirectional short-messaging systems, biomarker assessment, genomics and functional brain imaging. The majority of Dr. Muldoon’s research funding has come from competitive grants awarded by the National Institutes of Health (U.S. Public Health Service).
Suresh Mulukutla MD
Dr. Mulukutla has established himself as a well-recognized investigator in the field of cardiovascular outcomes research. His early involvement with the Dynamic Registry resulted in several high-impact publications. He was a co-author in the 2008 New England Journal of Medicine article entitled “A comparison of bare-metal and drug-eluting stents for off-label indications.” Dr. Mulukutla has contributed several other papers based upon the Dynamic Registry as first author, senior author, and co-author. It was largely this work that led him to be recognized by Cardiovascular Research Technologies (CRT) as one of the nation's Young Leaders in 2009.

Dr. Mulukutla's interests in outcomes research and registry-based analyses led to the formation of the Heart and Vascular Institute's Clinical Biostatistics Core (CBC). The CBC has provided the foundation for several academic and research activities in outcomes across the HVI. In the last year alone, the CBC, under the direction of Dr. Mulukutla, has published several manuscripts/abstracts using UPMC-specific data. These concern areas of clinical decision-making, readmissions in heart failure populations, treatment of complex coronary artery disease, among others.

Now, as Chief of Cardiology at the VA Pittsburgh Healthcare System, Dr. Mulukutla is extending his cardiovascular outcomes efforts to the VA population as well. He serves on several regional and national quality committees and serves as the Governor of the Western PA Chapter of the American College of Cardiology.

Jan Nemec MD
Dr. Nemec's primary research interest is cardiac electrophysiology.

John Pacella MS MD
Dr. Pacella's research interests include the development of therapy to optimize microvascular perfusion. He has received NIH R01 funding to develop the technique of sonorepufusion, which is the application of ultrasound to intravascular microbubbles to relieve microvascular obstruction and restore myocardial perfusion in the setting of percutaneous coronary intervention of acute myocardial infarction.

Bin Qin PhD
Dr. Qin's research interest the development of novel targeted drug and gene delivery system for cancer therapy. His current emphasis at the Center for Ultrasound Molecular Imaging and Therapeutics includes development of microbubble platforms for applications of gene therapy, molecular imaging, and angiography.

Ravi Ramani MD
Dr. Ramani's research studies the mechanisms of myocardial recovery, through the use of mechanical circulatory support, after the development of heart failure. He focuses on reversible and irreversible alterations in pathways of myocyte hypertrophy and fibrosis, with emphasis on microRNA signatures of recovery potential.

Shivdev Rao MD
Current research interests center around building and studying systems that leverage diverse data to affect provider and patient behavior patterns. Dr. Rao also explores large-scale population health analytics for systems and quality improvement. Previously, his research focused on African American cardiovascular risk factor stratification.

Steven Reis MD
Dr. Reis' research interests include cardiovascular health and heart disease in women, racial disparities in cardiovascular disease, microvascular angina, endothelial function, and cardiovascular risk. Dr. Reis, who has experience as a volunteer firefighter, has also conducted cardiovascular research on firefighters, a group prone to cardiac arrest given firefighting's combination of heat, exertion, and dehydration. He and other researchers have explored methods and technologies to regulate body temperature and reduce inflammation and cardiovascular strain on active firefighters.
He is the founding director of the Clinical and Translational Science Institute (CTSI), which improves efficiency and reduces the time it takes to translate biomedical advances into societal health practices. Pitt's CTSI is part of a national consortium of research institutes funded by the National Institutes of Health. CTSI fosters collaborative research that advances new medical therapies and technologies in clinical care while training clinical scientists and ensuring greater access to clinical trials for patients and the public.

Samir Saba MD
Dr. Saba has authored more than 190 manuscripts that were published in peer-reviewed journals and has been issued three patents for inventions in the field of cardiac electrophysiology. He has received research grants from the National Institutes of Health, the American Heart Association, the American Heart Foundation, and the American College of Cardiology. His research interests include cardiac device therapy for heart failure and the signal processing of intracardiac electrical signals for ischemia detection.

Guy Salama PhD
Dr. Salama's laboratory is focused on finding the mechanisms responsible for the initiation and termination of cardiac arrhythmias. To achieve this, Dr. Salama and his team have developed the use of voltage-sensitive dyes and high temporal and spatial resolution optical techniques to map patterns of action potential (AP) propagation and repolarization. These novel methods are used to illuminate the mechanisms that generate spatial heterogeneities of AP durations and the interplay between dispersion of repolarization (DOR) and anisotropic conduction velocities (CV). Animal models for cardiac arrhythmias include: acute ischemia in the guinea pig heart and two rabbit models of the long QT syndrome (LQTS). A number of mechanisms are being investigated as factors that promote arrhythmias in the LQTS: elevation of extracellular K+, sympathetic stimulation, and the role of spontaneous Ca2+ oscillation from the sarcoplasmic reticulum. In addition, researchers are mapping spatial heterogeneities of intracellular Ca2+ transients in mammalian hearts using Ca2+ indicator dyes and imaging techniques. Once the normal heterogeneities of Ca2+ are determined, changes in Ca2+ transients will be analyzed in a wide range of physiological conditions to determine parameter that modulate Ca2+ release from the sarcoplasmic reticulum (SR).

Erik Schelbert MD MS
Dr. Schelbert's research interests focus on cardiovascular magnetic resonance (CMR), which is a versatile technology that permits robust characterization of cardiovascular disease. The accuracy of the diagnostic information facilitates matching the patient to the "right" treatment, thereby streamlining a patient's care. The ability of CMR to establish the correct diagnosis as well as quantify future risk offers unique advantages compared to other modalities. A particularly useful application of CMR is its ability to detect and quantify disease related to the myocardium that is difficult to otherwise detect. For example, CMR can detect clinically unrecognized myocardial infarction, infiltrative disease related to excess iron, glycosphingolipid, or amyloid protein. Dr. Schelbert's team has focused on myocardial fibrosis, which results from varying degrees of excess collagen. Myocardial fibrosis appears to be a reversible indicator of myocardial health that is prevalent and predicts adverse events (e.g., mortality or hospitalization for heart failure) in proportion to its severity. Dr. Schelbert is trying to understand its optimal measurement, its association with other conditions, its impact on prognosis, and its response to therapy.

John Schindler MD
Dr. Schindler has participated in multiple national and international clinical trials, which have been focused on the ideal treatment of patients with complex cardiovascular conditions. In this role, he has been published in peer-reviewed journals and has presented clinical findings at national cardiovascular meetings. His current clinical focus centers on the individualized treatment of patients with valvular heart disease and on determining which minimally invasive therapies are most effective.
Sun Scolieri MD
Dr. Scolieri's research interests are heart disease in women and coronary artery disease

Iain Scott PhD
Dr. Scott's research focuses on the intrinsic mechanisms that regulate mitochondrial protein acetylation, and how this fundamental alteration affects organelle function at the cellular and tissue level. Mitochondria are ubiquitous organelles, playing a vital role in bioenergetics, metabolite biosynthesis, and overall cellular homeostasis. Their activity needs to be tightly regulated, as evidenced by the growing number of pathologies in which mitochondrial dysfunction is a causative factor. Mitochondria are highly susceptible to environmental stresses, with overnutrition being a particular problem in the developed world. A high caloric intake leads to a surge in available acetyl-CoA (the final breakdown product of fats, carbohydrates, and proteins in the mitochondria), which cannot be used for energetic or synthetic purposes. In particular, Dr. Scott's lab is interested in the coordination between acetylation levels and mitophagy, a quality control mechanism that mediates the removal of dysfunctional mitochondrial organelles. Researchers recently discovered that GCN5L1, a mitochondrial protein that promotes lysine acetylation, regulates the transcriptional machinery of mitophagy. Dr. Scott and his team's future work will aim to elucidate the pathways that link nutritional inputs, GCN5L1-mediated lysine acetylation, and mitochondrial quality control systems. These findings will then be translated into studies involving metabolically-relevant disease models, such as heart failure and diabetes, to achieve a better understanding of the role played by dysfunctional mitochondria in these processes.

Alaa Shalaby MD
Dr. Shalaby's research interests include utilization of implantable devices for and biomarkers of risk for sudden cardiac death. He also studies the use of devices for assessment and treatment of congestive heart failure and sleep-related breathing disorders.

Sushant Sharma MD
Dr. Sharma focuses on clinical research in emerging therapies in the management of cardiovascular disease.

Saul Silver MD
Dr. Silver is a sub investigator on the Silver AMI, an observational study designed to collect data about the post-AMI recovery period that will be used to generate risk models for older patients with AMI. It is funded by the National Heart, Lung, and Blood Institute (NHLBI) and Yale University. (New Haven, CT.) Among the several other current studies in which he is a sub investigator is ARTEMIS: A prospective, cluster-randomized clinical trial that will evaluate whether patient copayment reduction significantly influences antiplatelet therapy selection and long-term adherence, as well as patient outcomes and overall cost of care after acute myocardial infarction. The study is funded by AstraZeneca and Duke Clinical Research Institute (CRO). (Raleigh/Durham, NC.)

Marc Simon MD
As a translational scientist, Dr. Simon's research focus is understanding right ventricular (RV) adaptation and eventual failure in heart failure and pulmonary hypertension (PH). His labs focus on 1) advanced analysis of clinical hemodynamics, 2) integration of imaging and hemodynamics to better assess right ventricular function, and 3) early phase clinical trials in pulmonary hypertension and heart failure. His recent projects include a phase II study of inhaled nitrite for pulmonary hypertension (ClinicalTrials.gov NCT01431313), assessment of right ventricular-pulmonary arterial coupling in pulmonary hypertension patients and its relation to outcomes, right ventricular strain analysis by echocardiographic speckle tracking to screen a variety of patients for right ventricular dysfunction, assessment of right ventricular myocardial biaxial biomechanics in a murine model of pressure overload, and phenotyping a nonhuman primate model of HIV-associated pulmonary hypertension. He is involved with multiple clinical trials in pulmonary hypertension and heart failure and he holds several leadership roles, including 1) PI for the clinical core of a translational program project grant in pulmonary vascular disease (PI: Gladwin), 2) overseeing the Advanced Heart Failure and Cardiac Transplantation section’s clinical research portfolio of over 30 protocols with three full time clinical research coordinators, and 3) director of the Montefiore University Hospital Clinical & Translational Research Center, a core lab in the University of Pittsburgh’s Clinical Translational Science Institute that supports over 120 clinical research protocols.
for investigators. Dr. Simon has received research support from NIH, AHA, the Clinical Translational Science Institute of the University of Pittsburgh, and The Pittsburgh Foundation.

Anson Smith MD
Dr. Smith's research interests are primarily in the area of analysis of outcomes after percutaneous coronary intervention. As the Director of the Cardiac Catheterization Laboratory, he oversees the development of the cath lab database system, which will provide a wealth of research potential to evaluate various aspects in interventional cardiology. He has worked with Dr. Dennis McNamara in developing a database of coronary intervention patients that will help evaluate the potential genetic basis of cardiac disease. Dr. Smith also serves as the Governor of the Western Pennsylvania Chapter of the American College of Cardiology, where he has the unique opportunity to directly impact the practice of cardiology in this region.

Prem Soman MD PhD FRCP FACC
Dr. Soman's research focuses on the use of radionuclide-based imaging techniques in cardiac diseases, particularly heart failure. Current interests include the use of myocardial SPECT imaging for left ventricular dyssynchrony assessment, an area in which his group has contributed seminal work (Mati Friehling, Young Investigator Award, ASNC 2010; Saurabh Malhotra, Young Investigator Award, ASNC 2013).

Cynthia St Hilaire PhD
The St. Hilaire lab research program stems from the previous discovery of the genetic disease Arterial Calcification due to Deficiency of CD73 (ACDC), which identified a novel role for the enzyme CD73 and its substrate adenosine in vascular calcification and vascular remodeling. Moving forward, the lab's research will explore the role of CD73 and adenosine signaling in more complex vascular pathologies, such as atherosclerosis, calcific aortic valve disease, and aneurysms using in vitro (primary human and mouse cells and patient-specific induced-pluripotent stem cells) and in vivo (genetically defined murine models and surgical manipulations), with the goal of translating findings in ACDC to more common vascular diseases and pathologies.

Jeffrey Teuteberg MD
Dr. Teuteberg's primary research interest is the assessment of risk factors and outcomes for patients who receive mechanical circulatory support or cardiac transplantation. In the field of mechanical support, he is interested in right ventricular function, anticoagulation/thrombosis, and chronic clinical management. In cardiac transplant, his research interests are in novel immunosuppression, desensitization, and antibody mediated rejection.

Catalin Toma MD
Dr. Toma's research interests are the study of cell therapy for cardiac applications, bioabsorbable vascular scaffolds, intracoronary imaging, and pulmonary embolism.

Krishna Tummalapalli MD
Dr. Tummalapalli's research interests are the benefits of the trans-radial approach for cardiac catheterization, as well as both biodegradable and covered stents. She also participated in the National SAFE-PCI in Women Trial.

Flordeliza Villanueva MD
Dr. Villanueva's research focuses on the development of medical diagnostic and therapeutic strategies based on ultrasound and ultrasound contrast agents (gas-filled microspheres, or microbubbles). Her work has consistently bridged fundamental imaging sciences with translational biomedical research. As an established investigator of the American Heart Association, she has been a leader in the development of microbubbles for the assessment of myocardial perfusion, and ultrasound molecular imaging with targeted microbubbles for the detection of inflammatory and angiogenic endothelial markers in pre-clinical models of heart disease. Dr. Villanueva's lab has pioneered the development and application of microbubbles as molecular probes and as acoustic detection strategies for optimizing imaging sensitivity. Her lab group has applied fundamental principles of ultrasound and the physics of microbubble
acoustic behaviors to develop novel targeted molecular therapeutics, whereby nucleic acid loaded microbubbles (siRNA, miRNA, plasmid), in the presence of precisely tuned ultrasound, selectively enhance membrane permeability and deliver payloads to the target site. These studies are conducted at the Center for Ultrasound Molecular Imaging and Therapeutics, a translational multidisciplinary research facility that epitomizes the reciprocal relationship between imaging sciences and biomedical translational research.

**Andrew Voigt MD**
Dr. Voigt's research interests include cryoablation for atrial fibrillation and patterns of cardiovascular implantable electronic device utilization. He was one of the earliest physicians in the United States to implant a leadless pacemaker during a "first in human" multicenter trial.

**Norman Wang MD MS**
Dr. Wang’s research interest focuses on the epidemiology of cardiovascular disease, with an emphasis on heart rhythm disorders. He has a M.S. in epidemiology from the University of Pittsburgh Graduate School of Public Health. He serves as a committee member of the University of Pittsburgh Institutional Review Board, which protects the rights and welfare of research subjects.

**Timothy Wong MD MS**
Dr. Wong's research interests include the comparative effectiveness of cardiovascular imaging modalities, as well as the role of a novel cardiac MRI biomarker of diffuse myocardial fibrosis in cardiovascular diseases, including hypertrophic cardiomyopathy. His work has been published in major scientific journals, including *Circulation* and the *European Heart Journal*. He also participates as a site investigator in several multi-center research protocols, while serving as a scientific reviewer for numerous journals. Dr. Wong is a member of an American Heart Association grant review committee, as well as imaging society working groups.

**François Yu PhD**
Dr. Yu’s research interests are focused on the use of ultrasound and microbubbles for imaging and therapeutic medical applications. They include sonoreperfusion therapy to address microvascular obstruction, ultrasound targeted drug delivery using microbubbles and liposomes, high frequency contrast ultrasound imaging for plaque vasa-vasorum imaging, and ultrasound tissue characterization using high frequency spectral domain analysis.

**Jianhui Zhu MD PhD**
Dr. Zhu’s research interests focus on ultrasound mediated gene/drug delivery in the treatment of tumors and cardiovascular diseases as well as the role of intracellular signaling pathways in mediating mitochondrial biogenesis and dynamics. He also studies the implication of autophagy-lysosome dysfunction in mitochondrial homeostasis and cell survival.
Faculty Research and Other Scholarly Activities

Evan Adelstein MD
• Active database of patients who have received cardiac resynchronization devices, 2013-present

William Barrington MD
• Director, UPMC Heart and Vascular Electrophysiology Program at UPMC Shadyside, 2005-present
• Member, UPMC Cardiology Fellowship/Education Committee, 2001-present
• Program Director, UPMC Clinical Cardiac Electrophysiology Training Program, 2002-present
• Member, Cardiology Cabinet (Leadership Committee) at UPMC Shadyside, 2005-present

Raveen Bazaz MD
• AMPLLATZER Cardiac Plug: ACP Trial (St. Jude Medical), Primary Investigator, University of Pittsburgh Medical Center, 2013-present
• Association for Advancement of Medical Instrumentation Technical Working Group 2; Taskforce, Development of International Standards for Lead Testing: Consortium of FDA, NIST, Biotronik, Boston Scientific, Medtronic, Sorin and St. Jude Medical; Primary Investigator, Human Use Condition Study (Study Design/Pre-contract Phase), 2013-present

Kathryn Berlacher MD
• American College of Cardiology Foundation, Faculty Development Task Force, 2012-present
• American College of Cardiology Foundation, COCATS Task Force, Dec. 2012-March 2015
• American College of Cardiology, ABIM Competency Based Pilot Program, 2013-present
• American College of Cardiology Foundation, ABIM Pilot Study, 2012-present
• American Heart Association, Laennec and Postgraduate Education Committee, June 2014-present
• American Heart Association, Laennec Committee, 2014-present
• Women’s Health in Emergency Medicine and Beyond, UPMC MWH, 2012-present
• Medical Documentation Task Force, Participant, 2012-present
• CardioTalk (pilot study on teaching communication skills to fellows and faculty in the CICU), Co-Director, 2013-present
• American College of Cardiology, Fellow, 2008-present
• UPSOM Admissions Interviewing Committee, Member, 2012-present
• Medical Documentation Technology Development, Participant, 2012-present
• American Heart Association, Fellows’ Research Day, 2014-present
• UPMC COACH events, in association with various organizations, including the American Heart Association, volunteer, 2009-present

João L Cavalcante MD
• Awarded from Medtronic Inc. the Investigator Initiated Grant entitled “Multicenter Prospective CoreValve Study Using Cardiac MRI for Assessment of Paravalvular Aortic Regurgitation and Its Impact on LV Reverse Remodeling and Cardiovascular Outcomes”. 2015
• Invited faculty to American College of Cardiology Scientific Sessions, 2015
• Invited faculty to 9th Congress of Asian Society of Cardiovascular Imaging, 2015
• Invited faculty to American Society of Echocardiography Scientific Sessions, 2013-2015
• Reviewer, Expert Review of Cardiovascular Disease, 2009-present
• Reviewer, Heart Failure Reviews, 2010-present
• Reviewer, Journal of the American College of Cardiology (JACC), 2010-present
• Reviewer, JACC Cardiovascular Imaging, 2011-present
• Reviewer, Heart (BMJ), 2011-present
• Reviewer, *Circulation*, 2012-present
• Reviewer, *European Heart Journal* (BMJ), 2013-present
• Reviewer, *Journal of Cardiac Computed Tomography*, 2013-present
• Reviewer, *Circulation: Cardiovascular Imaging*, 2013-present
• Reviewer, *American Journal of Cardiology*, 2013-present
• Reviewer, *Journal of American Society of Echocardiography*, 2014-present
• Reviewer, *Echocardiography*, 2014-present
• Reviewer, *International Journal of Cardiovascular Imaging*, 2014-present

**Frederick Crock MD**

• Continued Access to PREVAIL (CAP 2- WATCHMAN II: TEE evaluation and guidance for left atrial appendage occlusion. Boston Scientific Sponsor, 2012-present
• Echo Interpreter, Abiomed Sponsor, Right Heart Impella Study, 2013-present
• Echo Interpreter, Surgical Treatment of Aortic Stenosis with a Next Generation, Rapid Deployment Surgical Aortic Valve, Sponsor Edwards LifeScience, 2014-present
• Echo Interpreter, Aastrom, Phase 2 Trial of Autologous bone marrow cells injected into the myocardium using endocardial mapping with the NOGA System, 2012-present
• Echo Interpreter, Multiport Pacing with Quadrupolar LV Lead System, St JUDE sponsor, 2013-present
• Echo Interpreter, Phase III trial of stem cell injections into myocardium for chronic ischemia, Sponsor by Baxter, 2012-present
• Echo Interpreter, A Multinational Trial to Evaluate the Parachute Implant System: Echo interpretation at out site, 2013-present

**Partha Dutta PhD**

• Journal reviewer, *Oncotarget*, 2015
• Journal reviewer, *Atherosclerosis*, 2016
• Journal reviewer, *Molecular Imaging and Biology*, 2016
• Journal reviewer, *Mediators of Inflammation*, 2016
• Scholar, Vascular Medicine Institute, University of Pittsburgh, 2015
• NIH Pathway to Independence (PI) Award (R00), 2015
• HVI/VMI Fellow Award, 2016
• Grant reviewer, K grant writing workshop, Department of Medicine, University of Pittsburgh, 2016
• Grant reviewer, Pilot Project Program in Hemostasis and Vascular Biology, Vascular Medicine Institute, University of Pittsburgh, 2016
• Grant reviewer, HVI/VMI innovator award, Vascular Medicine Institute, University of Pittsburgh, 2016

**Michael Fallert MD**

• *Pittsburgh Magazine*, “Best Doctors”, 2012-2016

**William Follansbee MD**


**John Gorcsan MD**

• Ad Hoc Reviewer NIH Grants, NHLBI, NIH, 2006-present
• Associate Editor–Lead in Imaging, *Journal of Cardiac Failure*, 2015-present
• International Associate Editor, *European Heart Journal*, 2012-present
• Editorial Board, *Journal of the American College of Cardiology*, 2006-present
• Editorial Board, *Journal of the American Society of Echocardiography*, 2006-present
• Guest Editor, *Journal of the American College of Cardiology*, 2004-present
• Appointments and Promotions Committee, University of Pittsburgh, 2013-2016
• Abstract Reviewer, American Heart Association National Meeting, 2012-2016
• Abstract Reviewer, American College of Cardiology National Meeting, 2012-2016
• Abstract Reviewer, American Society of Echocardiography National Meeting, 2012-2016
• American Society of Echocardiography, National Nomination Committee 2013-2016
• Invited Teaching Faculty Member, American Heart Association National Meeting, 2013-2015
• Invited Teaching Faculty Member, American College of Cardiology National Meeting, 2013-2015
• Invited Teaching Faculty Member, American Society of Echocardiography National Meeting, 2013-2016
• Invited Teaching Faculty Member, European Society of Echo International Meeting, 2013-2016
• Invited Teaching Faculty Member, European Society of Cardiology International Meeting, 2013-2016
• Medical Student Selection Committee, University of Pittsburgh, 2014-2016
• Faculty Honoree, University of Pittsburgh Honors Convocation, 2015
• Grant Recipient as PI: Systolic stretch to Predict Response to Cardiac Resynchronization Therapy in Patients with Intermediate ECG Criteria: Medtronic, Inc., 2015-2016
• Grant Recipient as Echo Core Lab Director and CO-Investigator: “Randomized Evaluation of VAD IntervEntion before Inotropic Therapy (REVIVE-IT) NHLBI, National Institutes of Health, 2016-2017
• Grant Co-Investigator “Developing Goal Directed Perfusion Therapy in Subarachnoid Hemorrhage Neurocardiac Injury NHLBI, National Institutes of Health 2014-2017
• Grant as Co-Investigator Genomic analysis of enhanced response to heart failure therapy in African Americans NHLBI, National Institutes of Health 2014-2017
• Echo Core Lab Award: Echo Core Lab Director EchoCRT Substudy Analysis Biotronik Inc. 2013-2015
• Manuscript Reviewer, *Artificial Organs*, 2013-2016
• Manuscript Reviewer, *Chest*, 2013-2016
• Manuscript Reviewer, *Circulation*, 2013-2016
• Manuscript Reviewer, *Circulation, Cardiovascular Imaging*, 2013-2016
• Manuscript Reviewer, *Circulation, Heart Failure*, 2013-2016
• Manuscript Reviewer, *Coronary Artery Disease*, 2013-2016
• Manuscript Reviewer, *Echocardiography*, 2013-2016
• Manuscript Reviewer, *European Heart Journal-Cardiovascular Imaging*, 2013-2016
• Manuscript Reviewer, *Heart*, 2013-2016
• Manuscript Reviewer, *Heart and Vessels*, 2013-2016
• Manuscript Reviewer, *Journal of American College of Cardiology, Cardiovascular Imaging*, 2013-2016

**Indrani Halder PhD**

- Primary Investigator, Biobehavioral Genetics of CVD risk NHLBI, 2009-present
- University of Pittsburgh Department of Medicine Junior Scholar Award, 2015
- Melanopsin Photosensitivity and Psychopathology, 2014-present
Matthew Harinstein MD
- Fellow, American College of Cardiology, 2013-present
- Fellow, American Society of Echocardiography, 2013-present
- Fellow, American Society of Nuclear Cardiology, 2015
- Member, Leadership Development Program, American Society of Nuclear Cardiology, 2015
- Membership Committee, American Society of Nuclear Cardiology, 2015-present
- Education Committee, American Society of Nuclear Cardiology, 2016-present
- Program Committee Member, ASNC Scientific Sessions, 2013, 2017
- Writing Committee, Nuclear Cardiology Knowledge Self-Assessment Program, Viability Module, 2015-2016
- Certification Board of Nuclear Cardiology Exam Writing Committee, 2016
- Medical Director, CCAC Cardiac Sonography Program, 2015-present
- Chief, Cardiology, UPMC McKeesport, 2015-present
- Director, Interventional Echocardiography, Quality and Education, UPMC Shadyside, 2015
- Co-Director, Noninvasive Imaging, UPMC Shadyside, 2016-present

Kang Kim PhD
- Editorial Board, *International Journal of Medical Engineering and Informatics*, 2008-present
- Grant Reviewer of NIH CSR, Member of Medical Imaging (ZRG1 SBIB-T (10), 2011-present
- National Institute of Health Study Section Reviewer 2009-present
- Review application materials and interview applicants for Medical Scientist Training Program (MSTP, MD/PhD) and Physician Scientist Training Program (PSTP, MD) 2010-present
- Review application materials and interview applicants for PhD, Graduate Program, Department of Bioengineering 2010-present

Sandeep Jain MD
- PaACC education committee member, 2013-2015

William Katz MD
- Clinical Director, Echocardiography Laboratory, 2004-present

Oscar Marroquin MD
- Vice President, Clinical Analytics, UPMC Health Services Division, 2014-present
- Assistant Professor in the Clinical and Translational Science, 2013-present
- IT Board of Visitors, 2012-present
- Data Governance Council, 2012-present
- Associate Director, Heart and Vascular Center for Quality, Outcomes, and Clinical Research (CQOR), 2011-present
- Member, Quality Patient Care Committee (QPCC), UPMC’s Center for Quality Improvement and Innovation, 2010-present
- Assistant Professor, Department of Epidemiology, Graduate School of Public Health, University of Pittsburgh, 2008-present
- Associate Director for Research, Cardiology Fellowship Program, University of Pittsburgh Medical Center, 2008-present
- Chair, Adjudications Committee, NHLBI Dynamic Registry, 2007-present
- Associate Director, LHAS Women’s Heart Center, University of Pittsburgh Medical Center, 2004-Present
- Assistant Professor of Medicine, University of Pittsburgh, 2003-Present
Michael Mathier MD

- Grant Reviewer, American Heart Association Mid-Atlantic Consortium, 2000-present
- Study Section Chairman, American Heart Association Mid-Atlantic Consortium, 2006-present
- Abstract Grader, American Heart Association Scientific Sessions, 2000-present
- Abstract Grader, ACC Scientific Sessions, 2000-present
- Fellow, American College of Cardiology, 2003-present
- Fellowship Committee, University of Pittsburgh, 2002-present
- Graduate Medical Education Committee, 2006-present
- Accreditation, Reviews and Quality Committee (a subcommittee of the GMEC), 2006-present
- College of Cardiology, Circulation Research, Coronary Artery Disease, 1997-present
- *Journal of Cardiac Failure*, Cardiovascular Research, 1997-present
- Abstract Grader, AHA Scientific Sessions, 2000-present
- Abstract Grader, ACC Scientific Sessions, 2000-present
- Pulmonary Hypertension Association Scientific Leadership Council, 2006-present
- Medical Sessions Conference Committee, 2006-present
- Medscape “Ask the Experts” Committee on Pulmonary Hypertension, 2006-present
- AHA Unified Peer Review Steering Committee, 2009-present
- Member, Board of Directors Program for Healthcare to Underserved Populations, University of Pittsburgh, 2010-present
- Regional Chairman, Pulmonary Hypertension Association on the Road Session, Pittsburgh, PA, 2011-present
- Chairman, PHA Online University, 2011-present
- Associate Editor, *ACC Cardiosource* (Heart Failure Learning Pathway), 2011-present
- Topic Coordinator (Pulmonary Hypertension), ACC.12 Program Committee, 2011-present
- CardioSurve Research Panel, ACC, 2011-present
- *Journal of Cardiac Failure*, Cardiovascular Research, Clinical Endpoints Committee, OPUS-TIMI 16 Trial, 1998-present
- Abstract Reviewer, AHA Scientific Sessions, 2000-present
- Abstract Reviewer, ACC Scientific Sessions, 2000-present
- Co-Chairman, AHA Mid-Atlantic Peer Review Research Consortium Committee on Cardiovascular Pathophysiology, Anesthesia, Radiology and Surgery, 2005-present
- Chairman, AHA Mid-Atlantic Peer Review Research Consortium Committee on Cardiovascular Pathophysiology, Anesthesia, Radiology and Surgery, 2006-present
- Pulmonary Hypertension Association Scientific Leadership Council Medical Sessions Conference Committee, 2006-present
- Chairman, PHA Online University, 2011-present
- Medical School Applicant Interviewing, University of Pittsburgh, 2002-present
- Founder and Director, Cardiology Free Clinic, a subspecialty clinic of the Birmingham Free Clinic, Program for Healthcare to Underserved Populations, University of Pittsburgh, 2009-present

Dennis McNamara MD

- Ad Hoc Grant Reviewer, NIH, 2005-present
- Abstract Grader, American College of Cardiology and Heart Failure Society of America, 2008-present
- Editorial Board, *Journal of Cardiac Failure*, 2009-present
- Program Committee, American College of Cardiology, 2010-present
- Testing Committee, American Board of Internal Medicine, Heart Failure/Transplant Sub Committee, 2009-present
Charles F. McTiernan PhD
- Ad Hoc Grant Reviewer, NIH, 2004-present

G. Stuart Mendenhall MD
- Fellow, American College of Cardiology, 2012-present
- Fellow, Heart Rhythm Society, 2012-present

Suresh Mulukutla MD
- PCI Registry, to create a clinical registry of PCI patients across UPMC. 2011-2015

John Pacella MD
- Fellow, American College of Cardiology, 2000-present
- Fellow, American Heart Association (Council on Clinical Cardiology), 2006-present
- Fellow, Society for Coronary Angiography and Intervention, 2007-present
- First Prize, University of Pittsburgh, School of Medicine, 12th Annual Research Day, Microbubble-Mediated
- American Medical Association, 1994-present
- American Society of Echocardiography, 2009-present
- International Contrast Ultrasound Society, (ICUS) 2009-present

Ravi Ramani MD
- REVIVE-IT (Randomized Evaluation of VAD InterVention before Inotrope Therapy), 2012-2015

Steven Reis MD
- Ad Hoc Grant Reviewer, NIH, 2005-present
- Editorial Boards, Journal of Women's Health and Gender Based Medicine, Current Controlled Trials in Cardiovascular Medicine, 1999-present
- Member, American Society for Clinical Investigation, 1999-present
- CTSA Editor, Clinical and Translational Science, 2008-present
- Member, NIH National Clinical and Translational Science Award Programs, 2008-present
- Member, Consortium Oversight Committee, Executive Committee and Consortium Steering Committee, 2006-present
- Member, External Advisory Boards, Washington University Institute of Clinical and Translational Sciences, 2008-present
- Member, Harvard Clinical and Translational Science Center, 2008-present
- Member, The North Carolina Translational and Clinical Sciences Institute, 2008-present
- Pittsburgh Magazine, "Best Doctors", 2010-2016
- Member, National CTSA Steering Committee, 2013-present

Samir Saba MD
- Director, UPMC Cardiac Electrophysiology Laboratory, 2004-present
- Chief, Cardiac Electrophysiology Section, 2005-present
- Associate Chief for Clinical Affairs for the Division of Cardiology, 2015-present
- Fellow, American Heart Association, 2000-present
- Fellow, American College of Cardiology, 1998-present
- Fellow, Heart Rhythm Society, 2000-present
- Fellow of the Heart Rhythm Society, 2010-present
- Massachusetts Medical Society, 1993-present
• Editorial Board, *Heart Rhythm Journal*, 2010-present
• Grants Reviewer, American Heart Association, 2009-present
• Member of Task Force for American Heart Association Fellows Research Day, 2014-present
• *Pittsburgh Magazine*, "Best Doctors", 2016

Guy Salama PhD
• Reviewer, NIH-NHLBI K99 panel June 11-12, 2015
• Reviewer, NIH-NHLBI K99 panel November 6, 2015
• Reviewer, NIH-NHLBI K99 panel March 3-4, 2016
• Reviewer, NIH-NHLBI K99 panel June 9-10, 2016
• Reviewer, AHA Electrophys. panel April 9, 2016
• University of Pittsburgh Promotion Committee Department of Medicine, September 2013-present

Erik Schelbert MD
• Grant Reviewer, American Heart Association, 2008-present
• Ad Hoc manuscript Reviewer, *Circulation and Circulation: CV Imaging*, 2012-present
• Grant reviewer, American heart Association, 2008-present
• Editorial board, *Circulation: Cardiovascular Imaging*, 2015-present

John Schindler MD
• SIMPLICITY HTN-3 Medtronic Cardiovascular. Renal denervation in patients with uncontrolled HTN. 2011-2016
• SURTAVI Trial Medtronic Cardiovascular, (SURTAVI), 2012-present
• PORTICO clinical trial Transcatheter Heart Valve and Delivery Systems (Portico) via transfemoral and alternative delivery methods, 2014-present
• REPRISE III Trial Boston Scientific, 2015-present
• Medtronic Transcatheter Aortic Valve Replacement in Low Risk Patients, 2016

Mark Schmidhofer MD
• UPMC Health System Chair, System Pharmacy and Therapeutics Committee, 2013-present
• University of Pittsburgh Medical Center, Director, Quality Improvement, Division of Cardiology, 2006-present
• University of Pittsburgh Medical Center, Associate Director, Cardiovascular Fellowship, 2009-present

David Schwartzman MD
• Reviewer, *Journal of Cardiovascular Electrophysiology*, 2004-present
• Reviewer, *Journal of the American College of Cardiology*, 2005-present
• Reviewer, *Heart Rhythm*, 2005-present
• FTSP Fellowship Mentor, 2011-present
• R01HL078839-04 (04/01/09-03/31/19): This is a sub-award from Carnegie Mellon University. The purpose is to develop a robotic device for epicardial interventions. There is no scientific or budgetary overlap with the current proposal, 2013-present

Alaaeldin Shalaby MD
• Director, Cardiac Electrophysiology, Pittsburgh VA Healthcare System, 1999-present
• Fellow, American College of Cardiology, 1999-present
• Member, North American Society for Pacing and Electrophysiology, 1999-present

Marc Simon MD
• Member, Committee for Oversight of Research Involving the Dead (CORID), 2006-present
- Member, Cardiovascular Institute (CVI) Research Committee; internal risk management and scientific peer review for all IRB submissions from the CVI, 2007-present
- Appointed CO-Chair, Task Force, American Heart Association (AHA) Fellows Research Day, 2014-present
- AHA Fellows Research Day Task Force and Judge, 2012-present
- ACC Pulmonary Hypertension Workgroup, 2014-present
- AHA Review Panel for Bioengineering- Bioeng BSc 4, 2012-present.
- ISHLT Pulmonary Hypertension Council Educational Committee, 2015

**A. J. Conrad Smith MD**
- Primary Investigator, PLATINUM Diversity Boston Scientific. Stent in Women and Minorities. 2014-present
- Primary Investigator, REDUCE W.L. Gore & & Associates, Inc.
- Primary Investigator, EXCEL Trial, 2011-present
- Primary Investigator, COAPT Mitral Clip Evalve, 2011-present
- Co-Investigator, Absorb III - A Clinical Evaluation of Absorb™ BVS, 2012-current
- Co-Investigator, Parachute IV, Cardiokinetix 2012-present
- Co-Investigator, RenalGuard, PLC Medical Systems, Inc., 2016
- Primary Investigator, U.S. Total Trial: Total Occlusion Trial with Angioplasty by using a laser guidewire (TOTAL), 2012-present

**Prem Soman MD**
- Board of Directors, American Society of Nuclear Cardiology, 2010-present
- President Elect, American Society of Nuclear Cardiology, 2016 for 2017-2018
- Vice President, American Society of Nuclear Cardiology, 2016-2017
- Chair, Leadership Development Program, 2015-present
- Board of Directors, American Society of Nuclear Cardiology, 2010-present
- Editorial Board and Section Editor, *Journal of Nuclear Cardiology*, 2009-present
- Board of Directors, Society of Nuclear Medicine, Cardiovascular Council, 2010-present
- Member, ACC Annual Scientific Program Committee, 2010-present
- Board of Directors, ICANL (Intersocietal Commission for the Accreditation of Nuclear Medicine Laboratories), 2010-present
- Associate Editor, *Journal of Nuclear Cardiology*, 2013-present
- Editorial Board, *Journal of the American College of Cardiology, Cardiovascular Imaging*, 2014-present
- Chair, American College of Cardiology, Imaging Council, 2014-2016
- President, Cardiovascular Council, Society of Nuclear Medicine and Molecular Imaging, 2014-2015
- American College of Cardiology Writing Panel, Appropriate Use Criteria for Valvular Heart Disease, 2016
- American College of Cardiology Writing Panel, Appropriate Use Criteria for Structural Heart Disease, 2016
- Program Committee, SNMMI/ASNC Think Tank on Molecular Imaging, Heart House, Washington, DC, April 2015
- Steering Committee, ACC Think Tank on the Future of Imaging, Heart House, Washington, DC, April, 2015
- American College of Cardiology, Science and Quality Committee, 2016
- Member, American College of Cardiology Annual Scientific Program Committee, 2010-present
- Hermann Blumgart Award | Herman Blumgart Lecture, June 2016
Ozlem Soran MD
- Reviewer, European Journal of Heart Failure, 2010-present
- Reviewer, Annals of Internal Medicine, 2010-present
- Reviewer, American Journal of Cardiology, 2010-present
- Reviewer, Clinical Cardiology, 2012-present

Jeffrey Teuteberg MD
- Editorial Board, Journal of Cardiac Failure, 2005-present
- Executive Committee, International Society for Heart & Lung Transplantation, 2014-present
- Board member, International Society for Heart & Lung Transplantation, 2014-present
- Transplant Executive Council, 2013-present
- AST: Chair – Thoracic COP, 2014-present
- ISHLT: 2016 Program Committee, Chair for MCS symposia, 2015
- ISHLT: Co-chair MCS Master’s Academy, 2015
- ISHLT: Abstract Selection Committee, 2015
- ISHLT: Strategic Planning Committee, 2015
- ATC: 2016 Program Committee, 2015
- CTSN LVAD MPC II Trial Operations Committee, 2015
- Reviewer, Journal of Heart and Lung Transplant, 2015
- Reviewer, American Journal of Transplant, 2015
- Reviewer, JACC: HF, 2015
- Reviewer, Journal of Cardiac Failure, 2015
- Reviewer, Circulation: FH, 2015
- Chair, INTERMACS RV Taskforce, 2015
- ISHLT – MCS Taskforce, 2016

Catalin Toma MD
- Ad Hoc Grant Reviewer, NIH, 2008-present
- Director, Interventional Cardiology Research, 2013-present

Flordeliza Villanueva MD
- Ad Hoc Grant Reviewer, NIH, 2008-present
- Grant Reviewer, American Heart Association, 2004-present
- Research Committee, American Heart Association Great Rivers Affiliate, 2007-present
- Member, American Society for Clinical Investigation, and Association of University Cardiologists, 2007-present
- Editorial Board, Journal of the American Society of Echocardiograph—Imaging, 2008-present
- Editorial Board, Circulation–CV Imaging, 2008-present
- Abstract Grading Committee, National Scientific Sessions, American Heart Association, 2003-present
- Abstract Grading Committee, National Scientific Sessions, American Society of Echocardiography, 2004-present
- Pittsburgh Research and Investigation Summer Experience (PRISE) Committee Member, 2012-present
- National Task Forces/Committees, 1998-present
- Interview Committee for Medical School Admissions, University of Pittsburgh, 1993-present
- Junior Scholar Awards Committee, Department of Medicine, 2007-present
- Department of Medicine Mentoring Program for Junior Faculty (mentor faculty members), 2008-present
- Post Doctoral Evaluation Committee (Medical School), 2010-present
- Executive Leadership Group, Heart and Vascular Institute, University of Pittsburgh Medical Center, 2015
- Telemedicine and New Technology Task Force, American Society of Echocardiography, 2014-present
• Extra-Mural Research Committee, American Society of Echocardiography, 2009-present

Andrew Voigt MD
• Continued development of AF catheter ablation program at Shadyside University Hospital, with incorporation of new technology (cryoablation) and improvement of efficiency of operation, 2013-present
• Expansion of AF ablation programs to patients with persistent atrial fibrillation, with incorporation of combined cryoablation/RFA approach, 2013-present

Norman C. Wang MD
• Fellow, American College of Cardiology, 2012-present
• Fellow, Heart Rhythm Society, 2013-present

Timothy Wong MD
• American Heart Association National Study Section, Radiology and Imaging, 2014-present
• Ad hoc manuscript reviewer, Circulation: Cardiovascular Imaging, JACC: Cardiovascular Imaging, Hypertension, Journal of the American Heart Association, Journal of Cardiovascular Magnetic Resonance, 2012-present
# Grants and Contracts Awarded

<table>
<thead>
<tr>
<th>Public Health Service</th>
<th>Description</th>
<th>Institution</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aiyer, Aryan</td>
<td>Dipyradomole as a Modulator of HIV-1 inflammation by adenosine regulation</td>
<td>NIAID</td>
<td>$3,131</td>
<td>$1,691</td>
</tr>
<tr>
<td>Al Ghouleh, Imad</td>
<td>Reactive oxygen species in vascular disease</td>
<td>NHLBI</td>
<td>$7,947</td>
<td>$4,291</td>
</tr>
<tr>
<td>Bruemmer, Dennis C.</td>
<td>Epigenetic regulation of inflammatory gene expression by telomerase</td>
<td>NHLBI</td>
<td>$31,512</td>
<td>$17,017</td>
</tr>
<tr>
<td>Chan, Stephen Y.</td>
<td>Defining the complex biology of the MIR-130/131 family in pulmonary hypertension</td>
<td>NHLBI</td>
<td>$182,449</td>
<td>$98,522</td>
</tr>
<tr>
<td>Chan, Stephen Y.</td>
<td>Iron-Sulfur deficiency as a critical pathogenic cause of pulmonary hypertension</td>
<td>NHLBI</td>
<td>$161,092</td>
<td>$78,655</td>
</tr>
<tr>
<td>Chan, Stephen Y.</td>
<td>Induction of oncogenic miRNA by rapamycin: role in TSC therapy</td>
<td>Brigham and Women’s Hospital, Inc./NIDDK</td>
<td>$45,790</td>
<td>$24,726</td>
</tr>
<tr>
<td>Chan, Stephen Y.</td>
<td>Exercise-induced concentric left ventricular hypertrophy: unrecognized pathology</td>
<td>Massachusetts General Hospital/NHLBI</td>
<td>$28,354</td>
<td>$15,311</td>
</tr>
<tr>
<td>Dutta, Partha</td>
<td>Effect of diabetes on myelopoiesis and atherosclerosis</td>
<td>NHLBI</td>
<td>$80,444</td>
<td>$43,656</td>
</tr>
<tr>
<td>Gorcsan, John</td>
<td>Developing goal-directed perfusion therapy for neurocardiac injury in subarachnoid hemorrhage</td>
<td>NINR</td>
<td>$15,756</td>
<td>$8,508</td>
</tr>
<tr>
<td>Halder, Indrani</td>
<td>Melanopsin photosensitivity and psychopathology</td>
<td>NIMH</td>
<td>$5,455</td>
<td>$2,945</td>
</tr>
<tr>
<td>Ishizawar, David</td>
<td>National biological samples and data repository for PAH</td>
<td>Cincinnati Children’s Hospital/NHLBI</td>
<td>$11,961</td>
<td>$6,279</td>
</tr>
<tr>
<td>Kaufman, Brett A.</td>
<td>Molecular mechanisms of mitochondrial DNA deletion formation</td>
<td>NIGMS</td>
<td>$264,300</td>
<td>$125,158</td>
</tr>
<tr>
<td>Kaufman, Brett A.</td>
<td>The Jackson Laboratory Nathan Shock Center of Excellence in the Basic Biology of Aging</td>
<td>The Jackson Laboratory/NIA</td>
<td>$45,462</td>
<td>$4,546</td>
</tr>
<tr>
<td>Kaufman, Brett A.</td>
<td>Signaling mechanisms by which mitochondria regulates fibrosis in the lung</td>
<td>NHLBI</td>
<td>$2,183</td>
<td>$1,179</td>
</tr>
</tbody>
</table>

Department of Medicine [http://www.dom.pitt.edu/card](http://www.dom.pitt.edu/card)
<table>
<thead>
<tr>
<th>Name</th>
<th>Project Description</th>
<th>Funding Agencies</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>KIM, KANG</td>
<td>Biometric Coacervate Delivery of Muscle Stem Cell to Improve Cardiac Repair</td>
<td>NIBIB</td>
<td>$11,849</td>
<td>$6,339</td>
</tr>
<tr>
<td>KIM, KANG</td>
<td>Noninvasive Fat Quantification of Liver Using Ultrasound Thermal Strain Imaging</td>
<td>NIBIB</td>
<td>$88,291</td>
<td>$47,677</td>
</tr>
<tr>
<td>KIM, KANG</td>
<td>Bone Abnormalities &amp; Healing Defects in Muscular Dystrophy</td>
<td>UNIVERSITY OF TEXAS/NIAMS</td>
<td>$3,113</td>
<td>$1,681</td>
</tr>
<tr>
<td>KIM, KANG</td>
<td>Phase Resolved ARF Optical Coherence Elastography for Intravascular Imaging</td>
<td>UNIVERSITY OF CALIFORNIA/IRVINE/ NHLBI</td>
<td>$10,000</td>
<td>$5,400</td>
</tr>
<tr>
<td>MATHIER, MICHAEL</td>
<td>Network Management Core (NEMO) for the Pulmonary Trials Cooperative (PTC)</td>
<td>NHLBI</td>
<td>$2,285</td>
<td>$1,234</td>
</tr>
<tr>
<td>MCNAMARA, DENNIS M.</td>
<td>Genomic Analysis of Enhanced Response to Heart Failure Therapy in African Americans</td>
<td>NIMHD</td>
<td>$267,111</td>
<td>$127,928</td>
</tr>
<tr>
<td>MCTIERNAN, CHARLES F.</td>
<td>Antidote for Inhaled CO Poisoning Based on Mutationally Engineered Neuroglobin</td>
<td>NHLBI</td>
<td>$66,437</td>
<td>$35,876</td>
</tr>
<tr>
<td>MCTIERNAN, CHARLES F.</td>
<td>University of Pittsburgh Clinical and Translational Science Institute</td>
<td>NCATS</td>
<td>$6,957</td>
<td>$3,583</td>
</tr>
<tr>
<td>PACELLA, JOHN J.</td>
<td>Microbubble-Mediated Ultrasonic Therapy for Coronary Microvascular Obstruction</td>
<td>NHLBI</td>
<td>$347,791</td>
<td>$159,241</td>
</tr>
<tr>
<td>RAMANI, RAVI N.</td>
<td>Blended Collaborative Care for Heart Failure and Co-Morbid Depression</td>
<td>NHLBI</td>
<td>$9,210</td>
<td>$4,973</td>
</tr>
<tr>
<td>REIS, STEVEN</td>
<td>Late Cardiovascular Consequences of Septic Shock</td>
<td>NCATS</td>
<td>$6,439,862</td>
<td>$2,910,965</td>
</tr>
<tr>
<td>REIS, STEVEN E.</td>
<td>Effect of Atorvastatin on Endothelial Function and Raynaud in Diffuse Sclerosis</td>
<td>NIGMS</td>
<td>$5,629</td>
<td>$2,899</td>
</tr>
<tr>
<td>REIS, STEVEN E.</td>
<td>Vitamin D and Vascular Function in Obese Children</td>
<td>NIAMS</td>
<td>$3,377</td>
<td>$1,824</td>
</tr>
<tr>
<td>REIS, STEVEN E.</td>
<td>Imaging Pathophysiology in Aging and Neuodegeneration (Project 2)</td>
<td>NHLBI</td>
<td>$11,255</td>
<td>$6,078</td>
</tr>
<tr>
<td>REIS, STEVEN E.</td>
<td>Vitamin D and Vascular Function in Obese Children</td>
<td>NIA</td>
<td>$11,341</td>
<td>$6,124</td>
</tr>
<tr>
<td>Name</td>
<td>Project Description</td>
<td>University/Grant</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>-----------------</td>
<td>--------------------------------------------------------------------------------------</td>
<td>-------------------------------------</td>
<td>--------------</td>
<td>----------------</td>
</tr>
<tr>
<td>SABA, SAMIR</td>
<td>Late Sodium Current Blockade in High Risk ICD Patients</td>
<td>University of Rochester/NHLBI</td>
<td>$9,799</td>
<td>$3,335</td>
</tr>
<tr>
<td>SALAMA, GUY</td>
<td>Regulation of the Cardiac Sodium Channel by SIRTUIN1</td>
<td>University of Iowa/NHLBI</td>
<td>$10,829</td>
<td>$5,847</td>
</tr>
<tr>
<td>SALAMA, GUY</td>
<td>Mechanisms/Treatments of Lower Urinary Tract Dysfunction After Spinal Cord Injury</td>
<td>NIDDK</td>
<td>$46,335</td>
<td>$25,021</td>
</tr>
<tr>
<td>SALAMA, GUY</td>
<td>Development of Novel Compounds for the Treatment of Atrial Fibrillation</td>
<td>ELX Biotech, LLC/NHLBI</td>
<td>$62,239</td>
<td>$33,658</td>
</tr>
<tr>
<td>SCHELBERT, ERIK BRANIN</td>
<td>Demonstrate Cost-Effectiveness in a Prospective, Randomized Trial of Treadmill Stress CMR vs. Treadmill Stress SPECT (Exact-Cost)</td>
<td>EXCMR, INC./NCATR</td>
<td>$2,407</td>
<td>$1,264</td>
</tr>
<tr>
<td>SCHELBERT, ERIK BRANIN</td>
<td>Effect of Exercise and Weight Loss on Cardiovascular Health</td>
<td>NHLBI</td>
<td>$22,515</td>
<td>$11,595</td>
</tr>
<tr>
<td>SCHWARTZMAN, DAVID</td>
<td>Dynamic Force Control of Cardiac Ablation Catheters</td>
<td>Carnegie-Mellon University/NHLBI</td>
<td>$9,195</td>
<td>$4,965</td>
</tr>
<tr>
<td>SCOTT, IAIN</td>
<td>Regulation of Mitochondrial Function by a Novel Lysine Acetyltransferase</td>
<td>NHLBI</td>
<td>$225,781</td>
<td>$18,062</td>
</tr>
<tr>
<td>SIMON, MARC</td>
<td>Longitudinal Evaluation of HIV-Associated Lung Disease Phenotypes</td>
<td>NCATS</td>
<td>$33,764</td>
<td>$17,388</td>
</tr>
<tr>
<td>SIMON, MARC</td>
<td>Vascular Subphenotypes of Lung Disease</td>
<td>NHLBI</td>
<td>$6,753</td>
<td>$3,647</td>
</tr>
<tr>
<td>SIMON, MARC</td>
<td>Blended Collaborative Care for Heart Failure and Co-Morbid Depression</td>
<td>NHLBI</td>
<td>$27,026</td>
<td>$13,918</td>
</tr>
<tr>
<td>SIMON, MARC</td>
<td>Blended Collaborative Care for Heart Failure and Co-Morbid Depression</td>
<td>NHLBI</td>
<td>$4,502</td>
<td>$2,431</td>
</tr>
<tr>
<td>SIMON, MARC</td>
<td>Blended Collaborative Care for Heart Failure and Co-Morbid Depression</td>
<td>NHLBI</td>
<td>$4,502</td>
<td>$2,431</td>
</tr>
<tr>
<td>SOMAN, PREM</td>
<td>International Study of Comparative Health Effectiveness with Medical and Invasive Approaches (Ischemia)</td>
<td>New York School of Medicine/NHLBI</td>
<td>$111,029</td>
<td>$38,860</td>
</tr>
</tbody>
</table>

Department of Medicine  
http://www.dom.pitt.edu/card
<table>
<thead>
<tr>
<th>Name</th>
<th>Project Description</th>
<th>Institution</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOMAN, PREM</td>
<td>INTERNATIONAL STUDY OF COMPARATIVE HEALTH EFFECTIVENESS WITH MEDICAL AND INVASIVE APPROACHES</td>
<td>NYU SCHOOL OF MEDICINE/ NHLBI</td>
<td>$1,415</td>
<td>$0</td>
</tr>
<tr>
<td>ST. HILLAIRE, CYNTHIA</td>
<td>REGULATION OF VASCULAR CALCIFICATION BY ADENOSINE SIGNALING</td>
<td>NHLBI</td>
<td>$232,778</td>
<td>$16,222</td>
</tr>
<tr>
<td>TEUTEBERG, JEFFREY J.</td>
<td>RANDOMIZED EVALUATION OF VAD INTERVENTION BEFORE INOTROPIC THERAPY (REVIVE-IT) PILOT TRIAL/REGISTRY EVALUATION OF VITAL INFORMATION FOR VADS IN AMBULATORY LIFE (REVIVAL)</td>
<td>UNIVERSITY OF MICHIGAN/ NIH</td>
<td>$11,364</td>
<td>$6,137</td>
</tr>
<tr>
<td>VILLANUEVA, FLORDELIZA S.</td>
<td>INTERVENTIONS TO REDUCE HYPERCOAGULABILITY IN OLD SIV-INFECTED NHPS</td>
<td>NHLBI</td>
<td>$11,180</td>
<td>$6,037</td>
</tr>
<tr>
<td>VILLANUEVA, FLORDELIZA S.</td>
<td>TARGETED DRUG DELIVERY USING LIPOSOMES, MICROBUBBLES AND ULTRASOUND</td>
<td>NIBIB</td>
<td>$75,000</td>
<td>$40,500</td>
</tr>
<tr>
<td>VILLANUEVA, FLORDELIZA S.</td>
<td>ULTRASOUND-ACTIVATED MICROBUBBLES FOR TARGETED SIRNA DELIVERY TO TUMOR</td>
<td>NIBIB</td>
<td>$374,075</td>
<td>$200,726</td>
</tr>
<tr>
<td>VILLANUEVA, FLORDELIZA S.</td>
<td>SPECIALIZED PROGRAM OF RESEARCH EXCELLENCE SPORE PROJECT 2</td>
<td>NCI</td>
<td>$75,051</td>
<td>$40,528</td>
</tr>
<tr>
<td><strong>TOTAL PUBLIC HEALTH SERVICE</strong></td>
<td></td>
<td></td>
<td><strong>$9,533,173</strong></td>
<td><strong>$4,249,735</strong></td>
</tr>
</tbody>
</table>

**FEDERAL**

<table>
<thead>
<tr>
<th>Name</th>
<th>Project Description</th>
<th>Institution</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHAN, STEPHEN Y.</td>
<td>ROLE OF MICRORNA IN THE PATHOGENESIS AND TREATMENT OF TSC</td>
<td>BRIGHAM AND WOMEN'S HOSPITAL, INC./ DOD</td>
<td>$28,850</td>
<td>$15,579</td>
</tr>
<tr>
<td>MENDENHALL, GEORGE</td>
<td>I-CORPS SITES: UNIVERSITY OF PITTSBURGH - ADVANCING INNOVATION, ENTREPRENEURSHIP AND OPPORTUNITY COMMERCIALIZATION</td>
<td>NATIONAL SCIENCE FOUNDATION</td>
<td>$1,200</td>
<td>$0</td>
</tr>
<tr>
<td><strong>TOTAL FEDERAL</strong></td>
<td></td>
<td></td>
<td><strong>$30,050</strong></td>
<td><strong>$15,579</strong></td>
</tr>
</tbody>
</table>

**SOCIETY AND FOUNDATIONS**

<table>
<thead>
<tr>
<th>Name</th>
<th>Project Description</th>
<th>Institution</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>AL GHOULEH, IMAD</td>
<td>THE ROLES OF NOX1, EBP50, AND ASK1 IN RIGHT VENTRICULAR HYPERTROPHY</td>
<td>AMERICAN HEART ASSOCIATION</td>
<td>$45,220</td>
<td>$4,523</td>
</tr>
<tr>
<td>Name</td>
<td>Title</td>
<td>Institution</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>----------------------------------------------------------------------</td>
<td>--------------------------------------</td>
<td>--------------</td>
<td>----------------</td>
</tr>
<tr>
<td>CAVALCANTE, JOAO</td>
<td>MULTICENTER PROSPECTIVE STUDY OF LOW-FLOW LOW-GRADIENT AORTIC STENOSIS (TOPAS STUDY)</td>
<td>UNIVERSITE LAVAL</td>
<td>$7,771</td>
<td>$0</td>
</tr>
<tr>
<td>CAVALCANTE, JOAO</td>
<td>ARTERIAL STIFFNESS AND WAVE REFLECTIONS AS DETERMINANTS OF REGRESSION OF LEFT VENTRICULAR HYPERTROPHY AND FIBROSIS ASSESSED WITH CARDIAC MRI AFTER AORTIC VALVE REPLACEMENT FOR SEVERE AORTIC STENOSIS</td>
<td>AMERICAN COLLEGE OF RADIOLOGY IMAGING NETWORK</td>
<td>$12,000</td>
<td>$0</td>
</tr>
<tr>
<td>CHAN, STEPHEN Y.</td>
<td>INTERROGATING AN ARGONAUTE 2 SWITCH TO REGULATE CIRCULATING MIR-210 AND TO COORDINATE REMOTE ISCHEMIC PROTECTION</td>
<td>AMERICAN HEART ASSOCIATION</td>
<td>$60,000</td>
<td>$6,000</td>
</tr>
<tr>
<td>JAIN, SANDEEP</td>
<td>A PATH TOWARD A LEARNING HEALTH SYSTEM FOR THE MID-ATLANTIC REGION</td>
<td>PATIENT-CENTERED OUTCOMES RESEARCH INSTITUTE</td>
<td>$7,058</td>
<td>$2,823</td>
</tr>
<tr>
<td>JAIN, SANDEEP</td>
<td>ASPIRIN DOSING: A PATIENT-CENTRIC TRIAL ASSESSING BENEFITS AND LONG-TERM EFFECTIVENESS (ADAPTABLE)</td>
<td>DUKE UNIVERSITY/PCORI</td>
<td>$2,256</td>
<td>$903</td>
</tr>
<tr>
<td>KAUFMAN, BRETT A.</td>
<td>THE ROLE OF PINK1 IN MTDNA INTEGRITY AND TUMORIGENESIS</td>
<td>UNIVERSITY OF PITTSBURGH MEDICAL CENTER</td>
<td>$9,085</td>
<td>$55,600</td>
</tr>
<tr>
<td>KAUFMAN, BRETT A.</td>
<td>MARCH OF DIMES CENTER FOR PREMATURITY RESEARCH AT THE UNIVERSITY OF PITTSBURGH</td>
<td>UNIVERSITY OF PENNSYLVANIA</td>
<td>$27,970</td>
<td>$2,797</td>
</tr>
<tr>
<td>KIM, KANG</td>
<td>DEVELOPMENT OF A NOVEL MULTI-MODAL IN VIVO IMAGING SYSTEM FOR ANIMAL-TO-HUMAN USE</td>
<td>SOGANG UNIVERSITY</td>
<td>$25,815</td>
<td>$1,186</td>
</tr>
<tr>
<td>MAGNANI, JARED</td>
<td>ATRIAL FIBRILATION HEALTH LITERACY INFORMATION TECHNOLOGY TRIAL (AF-LITT)</td>
<td>DORIS DUKE</td>
<td>$22,728</td>
<td>$2,272</td>
</tr>
<tr>
<td>SOMAN, PREM</td>
<td>AN EVALUATION OF THE DISTRIBUTION OF EQUIPMENT VINTAGE AMONG ECHOCARDIOGRAPHY LABORATORIES APPLYING FOR IAC ACCREDITATION AND ITS ASSOCIATION WITH LABORATORY QUALITY</td>
<td>INTERSOCIETAL ACCREDITATION COMMISSION</td>
<td>$2,440</td>
<td>$1,441</td>
</tr>
<tr>
<td>TEUTEBERG, JEFFREY J.</td>
<td>MEDAMACS MEDICAL ARM OF MECHANICALLY ASSISTED CIRCULATORY SUPPORT</td>
<td>UNIVERSITY OF ALABAMA AT BIRMINGHAM</td>
<td>$7,771</td>
<td>$0</td>
</tr>
</tbody>
</table>
## DIRECT COSTS

<table>
<thead>
<tr>
<th>Study Description</th>
<th>Funding Institution</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOMA, CATALIN - COMPLETE STUDY</td>
<td>POPULATION HEALTH RESEARCH INSTITUTE</td>
<td>$14,400</td>
<td>$3,600</td>
</tr>
<tr>
<td>TOMA, CATALIN - PREDICTORS OF TECHNICAL SUCCESS OF HYBRID APPROACH CTO PCI</td>
<td>CLEVELAND CLINIC</td>
<td>$2,800</td>
<td>$700</td>
</tr>
<tr>
<td>TOMA, CATALIN - CLINICAL AND ECONOMIC ASSESSMENT OF PATIENTS WITH ACUTE CORONARY SYNDROME MANAGED WITH PERCUTANEOUS CORONARY INTERVENTION AND TREATED WITH PRASUGREL USING ACADEMIC CENTER DATABASES</td>
<td>MT. SINAI MEDICAL CENTER</td>
<td>$8,626</td>
<td>$5,090</td>
</tr>
<tr>
<td>WONG, TIMOTHY - CARDIOVASCULAR MAGNETIC RESONANCE ASSESSMENT OF DIFFUSE MYOCARDIAL FIBROSIS IN HYPERTROPHIC CARDIOMYOPATHY</td>
<td>AMERICAN HEART ASSOCIATION</td>
<td>$70,000</td>
<td>$7,000</td>
</tr>
<tr>
<td>WONG, TIMOTHY - IMPROVING LATE LIFE SURVIVAL AFTER PEDIATRIC HEART TRANSPLANTATION THROUGH IMPROVED UNDERSTANDING OF POST-TRANSPLANT MYOCARDIAL FIBROSIS</td>
<td>AMERICAN HEART ASSOCIATION</td>
<td>$646</td>
<td>$65</td>
</tr>
<tr>
<td><strong>TOTAL SOCIETY AND FOUNDATIONS</strong></td>
<td></td>
<td><strong>$374,415</strong></td>
<td><strong>$29,711</strong></td>
</tr>
</tbody>
</table>

## INDIRECT COSTS

### INDUSTRY

<table>
<thead>
<tr>
<th>Study Description</th>
<th>Funding Institution</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>AL GHOULEH, IMAD - EFFECTS OF THE SGC STIMULATOR IWP-121 ON PULMONARY HYPERTENSION INDUCED BY HYPOXIA AND SUGEN 5416 IN RATS</td>
<td>IRONWOOD PHARMACEUTICALS</td>
<td>$7,266</td>
<td>$1,816</td>
</tr>
<tr>
<td>GORCSAN, JOHN - SYSTOLIC STRETCH AS A PREDICTOR OF RESPONSE TO CARDIAC RESYNCHRONIZATION THERAPY ADDITIVE TO QRS WIDTH</td>
<td>MEDTRONIC</td>
<td>$14,661</td>
<td>$3,812</td>
</tr>
<tr>
<td>GORCSAN, JOHN - VECTOR FLOW MAPPING TO CHARACTERIZE CARDIAC MECHANICS IN HEART FAILURE AND ADVANCE DEVICE THERAPY</td>
<td>HITACHI ALOKA MEDICAL AMERICA, INC.</td>
<td>$12,267</td>
<td>$3,067</td>
</tr>
<tr>
<td>SABA, SAMIR - INFLUENCING REFERRAL PATTERNS FOR PRIMARY PREVENTION OF SUDDEN CARDIAC DEATH: THE EFFECT OF AUTOMATED BEST PRACTICE MESSAGES ON PATIENTS REFERRAL PATTERNS TO ELECTROPHYSIOLOGISTS AND RATES OF DEFIBRILLATOR IMPLANTATIONS</td>
<td>BOSTON SCIENTIFIC CORP.</td>
<td>$29,126</td>
<td>$7,282</td>
</tr>
<tr>
<td>Description</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
<td></td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------</td>
<td>--------------</td>
<td>----------------</td>
<td></td>
</tr>
<tr>
<td>A DOSE ESCALATION STUDY TO EVALUATE THE EFFECT OF INHALED NITRITE ON CARDIOPULMONARY HEMODYNAMICS IN SUBJECTS WITH PULMONARY HYPERTENSION</td>
<td>$197,034</td>
<td>$49,259</td>
<td></td>
</tr>
<tr>
<td>SIMON, MARC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIRES PHARMACEUTICALS, INC.</td>
<td>$260,354</td>
<td>$65,236</td>
<td></td>
</tr>
<tr>
<td>TOTAL INDUSTRY</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PUBLIC HEALTH SERVICE</td>
<td>$9,533,173</td>
<td>$4,249,735</td>
<td></td>
</tr>
<tr>
<td>FEDERAL</td>
<td>$30,050</td>
<td>$15,579</td>
<td></td>
</tr>
<tr>
<td>SOCIETY AND FOUNDATIONS</td>
<td>$374,415</td>
<td>$29,711</td>
<td></td>
</tr>
<tr>
<td>INDUSTRY</td>
<td>$260,354</td>
<td>$65,236</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>$10,197,992</td>
<td>$4,360,261</td>
<td></td>
</tr>
</tbody>
</table>
TEACHING ACTIVITIES

The HVI provides its fellows with training in state-of-the-art cardiovascular imaging, interventional, and electrophysiological techniques, while remaining grounded in the disciplines of bedside diagnosis. Clinical rotations are performed alongside accomplished faculty valued for their teaching skills and supplemented with an extensive series of conferences covering all areas of traditional cardiovascular medicine, as well as the emerging fields of cardiology. A meaningful research effort is mandated for all fellows and may be taken in any of a number of clinical, basic, translational, educational or health information technology areas. The HVI strives to create a dynamic, well-rounded, and academically challenging program for its fellows. While aspects of the training program's structure are required for American Board of Internal Medicine certification, elective time allows fellows to pursue individual interests that best align with their career aspirations. Dr. Kathryn Berlacher MD MS serves as the fellowship program director, with Drs. Mark Schmidhofer MD, Michael Mathier MD, and Stephen Chan MD PhD serving as associate fellowship program directors.

The HVI also provides education and training for medical students in the University of Pittsburgh School of Medicine, and residents in the UPMC Internal Medicine, Emergency, and Vascular Surgery departments. The second-year medical school curriculum for the cardiovascular course continues to be one of the top-rated sections. Dr. Jenifer Lee MD is the director of the sophomore course. The CCU, Pavilion, and consult rotations remain very highly rated by residents.
Teaching Honors and Awards

Evan C. Adelstein MD

- Lecturer, HVI Seminar Series, “Implantable Cardiac Devices”, 2014
- Invited speaker, Heart Rhythm Society, “Outcomes in Pacemaker-Dependent Patients Upgraded from Conventional Pacemakers to Cardiac Resynchronization Therapy-Defibrillators”, 2015
- Invited speaker, Heart Rhythm Society, “Speckle-Tracking Echo to Assess Scar Location in Ischemic CM Patients”, 2015

William Barrington MD

- Primary lecturer, University of Pittsburgh School of Medicine, Sophomore Cardiovascular Disease Curriculum; Topics in Electrocardiography and Diagnosis and Treatment of Super Ventricular and Ventricular Rhythm Abnormalities. (six lectures per course), 2002-present
- Workshop facilitator, University of Pittsburgh School of Medicine Sophomore Cardiovascular Disease Curriculum (20 hours per course), 2002-present

Raveen Bazaz MD

- Invited speaker, UPMC Mercy Cardiovascular Conference, 2015
- Invited speaker, UPMC Mercy Cardiology Grand Rounds, 2015

Kathryn Berlacher MD

- Facilitator, MS II Cardiovascular course, UPSOM, 2012-present
- Lecturer, MS II Cardiovascular course, UPSOM, 2012-present
- Monthly Lecturer, Fellow EKG conference, UPMC, 2012-present
- Lecturer, UPMC IM Residency noon conferences, 2012-present
- Lecturer, UPMC Women’s Health conferences, 2012-present
- Research mentor of IM residents and cardiac fellows, 2012-present
- Facilitator, Behavioral Medicine MSII Course, UPSOM, 2014-present
- Co-Facilitator, Cardiology Fellows’ Quality Improvement Series, 2013-present
- Creator, Mini-EKG curriculum, UPMC IM MS III rotation, 2013-present
- Director and facilitator, Cardiology Fellow Journal Club, 2012-present
- Subspecialty Education Coordinator for Cardiology, Department of Medicine, 2012-present
- Member, American College of Cardiology Foundation, Faculty Development Committee, 2012-present
- Participant, American College of Cardiology, ABIM Competency Based Pilot Program, 2013-present
- Member, American Heart Association, Laennec and Postgraduate Education Committee, 2014-present
- Presenter, Internal Medicine Grand Rounds, January 2015
- Co-Founder, CardioTalk, 2013-present
- Co-Facilitator, Cardiology Fellows’ Quality Improvement Series, 2013-present
- Director, Cardiology Journal Club, 2012-present
- Core Leadership Participant, Cardiovascular Fellowship Recruitment, 2012-present
- Facilitator, Cardiology EKG Conference, 2012-present
- Facilitator, Cardiology Journal Club, 2012-present
- Director, Cardiology Fellowship Curriculum Committee, 2012-present
- Cardiology Liaison, Internal Medicine Subspecialty Education Coordinator, 2012-present
• Speaker, Internal Medicine Women's Health Conference Series, 2013-present
• Cardiology Interviewer, Internal Medicine Recruitment, 2012-present
• Cardiology Co-leader, Internal Medicine Pavilion Task Force, 2012-present
• Mentor, Internal Medicine Educational Scholarship, 2014-present
• Attending, Cardiology Workshop, Fall 2011-2015
• Small Group Facilitator, Behavioral Medicine, 2013-2015
• Creator, Mini-EKG curriculum, 2013-present
• Program Director, Cardiovascular Fellowship Program, 2015-present
• American College of Cardiology Foundation, Lifelong Learning Committee, Apr 2016-present
• American College of Cardiology Foundation, Faculty Development Committee, Jul 2012-present
• American College of Cardiology, ABIM Competency Based Pilot Program, Sept 2013-present
• American Heart Association, Laennec and Postgraduate Education Committee, June 2014-present
• Internal Medicine Grand Rounds, Jan 2015
• Cardiology Fellowship Website developer, Jan 2013-present
• Co-Founder, CardioTalk, Oct 2013-present
• Co-Facilitator, Cardiology Fellows’ Quality Improvement Series, July 2013-present
• Director, Cardiology Journal Club, July 2012-present
• Cardiovascular Fellowship Recruitment, Core Leadership Participant, August 2012-present
• Facilitator, Cardiology EKG Conference, October 2012-present
• Facilitator, Cardiology Journal Club, 2012-present
• Director, Cardiology Fellowship Curriculum Committee, July 2012-present
• Cardiology Liason, Internal Medicine Subspecialty Education Coordinator, July 2012-present
• Speaker, Internal Medicine Women's Health Conference Series, Jan 2013-present
• Section Director, Internal Medicine Noon Conference Series, Jan 2013-present
• Speaker, Internal Medicine Noon Conference, January 2014, July 2015
• Cardiology Interviewer, Internal Medicine Recruitment, Sept 2012-present
• Cardiology Co-leader, Internal Medicine Pavilion Task Force, May 2012-present
• Internal Medicine Educational Scholarship Mentor, Jul 2014 to present
• Cardiovascular Course Lecturer and Exam Writer, October 2012, 2013, 2014
• Creator, Mini-EKG curriculum, Spring 2013-present

Frederick Crock MD
• Speaker, Internal Medicine Conference, Aortic Stenosis/Aortic Insufficiency, January 2015
• Program Director/Lecturer, Three Rivers Echo Society Spring Symposium, Echocardiography-The Heart of the Matter, May 2015
• Preceptor EKG, Noon Conference for Cardiovascular Fellows, 2014-2015

Partha Dutta MD
• Instructor, Massachusetts General Hospital, Harvard Medical School, 2013-2015
• Co-faculty at K grant writing workshop, Department of Medicine, University of Pittsburgh, 2015-2016
• Invited speaker, Dr. Madsen and Colvin's lab. Department of Pathology, Massachusetts General Hospital, Harvard Medical School, Boston, Massachusetts, USA, May 19, 2015
• Invited speaker, Vascular Medicine Institute, University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania, February 9, 2015
• Invited speaker, Department of Systems Pharmacology and Translational Therapeutics, University of Pennsylvania, Philadelphia, February 11, 2015
• Invited speaker, Department of Stem Cell Biology and Regenerative Medicine, Cleveland Clinic, Cleveland, Ohio, March 31, 2015
• Invited speaker, Department of Medical Physiology, Texas A & M University, Texas, April 29, 2015
• Invited speaker, Cardiovascular Research Center, Massachusetts General Hospital, Harvard Medical School, Boston, Massachusetts, May 14, 2015
• Invited speaker, Department of Immunology, University of Texas Southwestern Medical Center, Dallas, Texas, June 3, 2015
• Invited speaker, American Heart Association Annual Scientific Sessions, Orlando, Florida, November 10, 2015
• Invited speaker, The Institute for Cardiovascular Research, Academic Medical Center, Amsterdam, the Netherlands, May 2, 2016
• Invited speaker, VUmc University Medical Center, Amsterdam, the Netherlands, May 3, 2016
• Invited speaker, Department of Immunology, University of Pittsburgh, Pennsylvania, January 19, 2016
• Invited speaker, Pitt Signaling Club, University of Pittsburgh, Pennsylvania, February 17, 2016
• Invited speaker, Molecular Medicine Research Seminar, Children Hospital of Pittsburgh of UPMC, Pennsylvania, May 10, 2016
• Mentor for undergraduate research, University of Pittsburgh, 2016

John Gorcsan MD
• Invited Teaching Faculty Member, American Heart Association National Meeting, 2013-2015
• Invited Teaching Faculty Member, American College of Cardiology National Meeting, 2013-2015
• Invited Teaching Faculty Member, American Society of Echocardiography National Meeting, 2013-2016
• Invited Teaching Faculty Member, European Society of Echo International Meeting, 2013-2016
• Invited Teaching Faculty Member, European Society of Cardiology International Meeting, 2013-2016
• Invited Teaching Faculty Member, American Society of Echocardiography “Echo Florida”, 2013-2016
• Invited Teaching Faculty Member, Michigan Society of Echocardiography Meeting, 2013-2015
• Invited Faculty, Cardiology Grand Rounds, Virginia Commonwealth University, 2016
• Invited Faculty, Cardiology Grand Rounds, Washington University Hospital, St. Louis, 2016
• Invited Faculty, Cardiology Grand Rounds, University of Alabama, Birmingham, 2016

Sandeep Jain MD
• Host, Clinical practicum, “Management of Atrial Fibrillation: A Patient’s Journey”, 2015
• Lecturer, “Medical Mondays: Atrial Fibrillation”, 2015
• Speaker, Advances in Cardiovascular Care Symposium, Cumberland Woods Village, “Treatment of Atrial Fibrillation, Rate vs. Rhythm Control”, 2015
• Lecturer, Cardiology Bootcamp Lecture Series, SVTs, 2014-2015
• Course director and faculty for PA American College of Cardiology Fellow in Training Conference: “Electrophysiology for the General Cardiology Fellow: Things you need to know for the National Boards and Clinical Practice”; Sheraton Pittsburgh Hotel at Station Square, 2015
• Faculty speaker, “The Decision Tree for Ablation Therapy in AFIB Patients” at American Heart Association regional meeting, “Hospital Strategies for Keeping Pace with Racing Hearts”, Pittsburgh Marriott North, 2015
• Faculty speaker, Cardiology Bootcamp Lecture Series, SVTs, 2014-2016, VT storm 2015-2016

William E. Katz MD
• Clinical Director, RSS Echocardiography Conferences, 2012-2015
• Facilitator, General Cardiology Workshop, August-September 2016
• Presenter, Chief’s Case Presentation Bicuspid Valve Endocarditis Montefiore Hospital, Pittsburgh, PA, Feb 2015
• Echocardiography Case Presenter, Evaluation of Stroke: Atrial Fibrillation, American Society of Echocardiography National Meeting, Boston, MA, June 2015
• 3D Quantification of Left Ventricular Function. 3Rivers Echo Society Meeting, Monroeville, PA, October 2015
• Facilitator, General Cardiology Workshop, August-September 2016
• RSS Echocardiography Conferences, 2012-2016
• Nurse Practitioners Valve Lecture, Graduate School of Public Health, January 2016

Kang Kim PhD
• Graduate student advisor, Research and Dissertation, 2012-present
• Member, PhD Committee Mechanical Engineering and Bioengineering, University of Pittsburgh, 2008-present
• Member, PhD Preliminary Exam Committee, (Bioengineering PhD), University of Pittsburgh, 2011-present
• Post-doctoral research fellow advisor, University of Pittsburgh, 2008-present

Jenifer Lee MD
• Course Director, Cardiology Sophomore Course, Body Fluid Homeostasis Block, 2012-present
• Course Co-director, Integrated Workshops Course, Body Fluid Homeostasis Block, 2015-present
• Member, Academy of Master Educators, 2015-2020
• Instructor, “Cardiac Heart Sounds” Workshop, Advance Physical Examination Course, 2014, 2016
• Lecturer, “Cardiac Ultrasound Workshop”, Cardiology Sophomore Course, 2015
• Lecturer, Cardiology Sophomore Course: Anti-Arrhythmic Medications, 2014-present
• Lecturer, Cardiology Sophomore Course: Cardiac Auscultation I Heart Sounds, 2012-present
• Lecturer, Cardiology Sophomore Course: Cardiac Auscultation II Murmurs, 2012-present
• Facilitator, Physiology Workshops, Body fluid Homeostasis Block, 2012-present
• Lecturer, Cardiology Sophomore Course: Mitral Valve Disease, 2011-present
• Lecturer, Cardiology Sophomore Course: Aortic Valve Disease, 2011-present
• Lecturer, Cardiology Sophomore Course: Anti-Ischemic Medications, 2006-present
• Coordinator, Advanced Physical Exam Course, 2004-present
• Clerkship Director, Adult Cardiology (MED 5440), 1996-present
• Instructor, Weekly Medical Student ECG Conference, 1996-present
• Facilitator, Problem-Based Learning in Cardiovascular Disease, 1996-present

Michael Mathier MD
• Facilitator, MS II Cardiovascular course, University of Pittsburgh School of Medicine, 2001-present
• Lecturer, MS II Cardiovascular course, University of Pittsburgh School of Medicine, 2002-present
• Lecturer, University of Pittsburgh School of Nursing, 2001-present
• Research supervisor, undergraduate students, residents, cardiac fellows, 2002-present
• Facilitator, Integrated Case Studies Course, University of Pittsburgh School of Medicine, 2014-present
• Associate Program Director, Cardiovascular Fellowship, 2015-present
• Clinic preceptor, cardiovascular fellows continuity clinic, 2002-present

Suresh Mulukutla MD
• Fellowship Lecture Series on Interventional Cardiology, 2003-present
• Member, General Cardiology Fellowship Evaluation Committee, 2007-present
• Implementation of the HVI Heart Team (Team-based multidisciplinary approach to decision-making in patients with complex coronary artery disease), 2012-present
• Mentor, Anthony Dota, MD, Cardiology Fellow, Heart Team Decision Making, 2013-2015
• Member of Doctoral Dissertation Committees (PhD Theses) Carrie Hanley, 2014-present
John Pacella MD
- Post-doctoral fellows advisor, University of Pittsburgh, 2007-present
- Post-doctoral research fellows advisor, University of Pittsburgh, 2005-present
- Mentor, CMU Undergraduate Students, 2008-present
- Mentor, CMU Graduate Students, 2011-present
- Medical student faculty advisor, Physician Scientist Training Program, 2010-present
- Medical student faculty advisor, Scholarly Project, University of Pittsburgh, 2011-present
- Clinical teacher, graduate and post-graduate medical students (Physiology Workshop-Sophomore Course), 2006-present
- Task Force Member, Fellow's Research Day, American Heart Association Pennsylvania Affiliate, 2011-present
- Teaching: CMU Medical Devices Course “Cardiac Catheterization”, 2015

P.S. Reddy MD
- Workshop facilitator, University of Pittsburgh School of Medicine Sophomore Cardiovascular Disease, 2014-2016

Guy Salama MD
- Invited speaker, International Relaxin Meeting, Malaysia, September 2016
- Keynote speaker, Arrhythmia, Brisbane, Australia, July 13-14, 2016
- Chairman, Session 1 Arrhythmia, Brisbane, Australia, July 13-14, 2016
- Invited Speaker, Auckland University, New Zealand, July 17-18, 2016

Marc A. Simon MD
- Mentor, Christopher Lacomis, undergraduate student, University of Pittsburgh, Echoardiographic assessment of right ventricular function, 2011-present
- Mentor, Christopher Link MD, medical resident and cardiology fellow, Assessment of right ventricular function by echocardiographic speckle tracking to predict RV failure after mechanical support of the left ventricle, 2011-present
- Facilitator, MS II Body Fluid Homeostasis Cardiovascular Course, Cardiovascular Physiology Workshop, University of Pittsburgh School of Medicine, 2014-present
- Mentor, VMI T32 postdoctoral fellow, 2013-2016
- Career Advisor, Physician Scientist Training Program (PSTP), 2011-present
- PhD thesis advisor, University of Pittsburgh Department of Bioengineering, 2014-present
- Invited lecturer, Bioengineering 1051 Cardiac Assist Devices (undergraduate course), “Heart Failure – Bioengineering contributions to understanding the disease process and its treatment.” University of Pittsburgh, February 10, 2016

Erik B. Schelbert MD
• Invited Speaker, “HFpEF and Interstitial Heart Disease,” University of Minnesota Cardiovascular Imaging Grand Rounds, Minneapolis, MN, May 7, 2015
• Invited Speaker, “Non-Ischemic Cardiomyopathy,” Cedars-Sinai Biograph mMR Cardiac Imaging Workshop, Myocardial Imaging in Non-Ischemic Heart Disease, Los Angeles, CA, June 28, 2015
• Invited Speaker Panelist, Society for Cardiovascular Magnetic Resonance US CMR SUMMIT, Washington, DC, July 10, 2015
• Invited Speaker, Heart Failure Society of America (HFSA) HFSA 2015 Annual Scientific Meeting “Scar Imaging in Cardiomyopathy and Heart Failure: “Non-Ischemic” Dilated Cardiomyopathy,” Washington, DC, Sept 28, 2015
• Invited Speaker, “Role of Cardiac Magnetic Resonance (CMR) in PPCM/PAC,” Heart Failure Society of America (HFSA) 2015 Annual Scientific Meeting Washington, DC, Sept. 29, 2015
• Invited Speaker, “Fibrosis Imaging in Cardiomyopathy,” American College of Cardiology Scientific Sessions, Chicago, IL Sunday, April 03, 2016
• Invited Speaker, “CMR Solutions in Ischemic Heart disease,” The Ohio State Cardiovascular MR and CT: 2016 Update, Friday, April 15, 2016
• Invited Speaker, “T1 mapping and ECV as an outcome predictor - latest results,” EuroCMR 2016, Florence, Italy, Thursday May 12, 2016

Mark Schmidhofer MD
• Integrated Case Studies, University of Pittsburgh School of Medicine, second -year medical students (10), 2015
• Drug Treatment of Ischemic Heart Disease, 4th Year Medical Student Elective in Clinical Pharmacology, 2015

David Schwartzman MD
• Host, Field Experience Day in Electrophysiology Laboratory for the Western Pennsylvania Summer STEMM Academy, 2015
• Fellowship mentor, Integration of healthy lifestyle practices into cardiology care, 2015

Marc Simon MD
• Mentor, Rebecca Vanderpool PhD, Hemodynamics of right ventricular-pulmonary vascular interaction, T32 (Gladwin), 2013-present
• Mentor, Sebastian Shterental, medical student, University of Pittsburgh, Right ventricular hemodynamic waveform morphology as quantified by area index and correlated to clinical outcomes, Clinical Scientist Training Program, 2013-present
• Scholarly Project Mentor, Sae Jang, University of Pittsburgh School of Medicine, Class of 2018, “Relating RV biomechanics to RV diastolic function parameter in rat analytical models”, 2014-present
• PhD thesis advisor, Timothy Bachman, University of Pittsburgh Department of Bioengineering, "Right Ventricular Failure Post-LVAD Implant", 2014- present

A.J. Conrad Smith MD
• “The Hidden Costs of Underutilization of PCI for CTO,” CRT, Washington, DC, Feb 2015
• “Assessment and treatment of mitral regurgitation,” Conemaugh 8th Annual Cardiovascular Symposium, Nemacolin Resort, Farmington, PA, May 2015
• Lecture on Acute Coronary Syndrome Trinity Health System's Emergency Department, Steubenville, Ohio, May 2015
• Lecturer, Fellow Luncheon series, “Mechanical Circulatory Support,” Sept 2016

John Schindler MD
• Fellowship Lecture Series on Interventional Cardiology, 2012-Present
• Program Co-Director/Lecturer, Transradial Symposium 2015
• Program Co-Director/Lecturer, Transradial Symposium 2016

Prem Soman MD
• Director, Advanced Imaging Fellowship, Division of Cardiology, 2007-present
• Concepts in Nuclear Cardiology, Cardiology Fellowship Lectures (three lectures), 2008-present
• Facilitator, Clinical Pharmacology Course for MS4, UPSOM, (Drug Treatment of Ischemic Heart Diseases), 2015, 2016
• Presenter, American Society of Nuclear Cardiology, Nuclear Cardiology Today, Orlando, FL, April 2014, 2015
• Presenter, American College of Cardiology Educational Programs, Recent Advances in Clinical Nuclear Cardiology and Cardiac CT, Washington DC, May 2014, 2015
• Faculty, American Society of Nuclear Cardiology, Nuclear Cardiology Today, Orlando, FL, April 2015, 2016
• Faculty, American College of Cardiology Educational Programs, Recent Advances in Clinical Nuclear Cardiology and Cardiac CT, Washington DC, May 2015, 2016

Ozlem Soran MD
• Instructor, Cardiovascular Treatment of Arrhythmia, Physiology block of the sophomore course, 2014-present
• Lecturer, Pericardial Diseases, 2014-present
• EECP Therapy Training for Cardiology Fellows, 2014-present
• Invited Speaker, “Mechanism Action of EECP: Is it Innovative?” Innovation in Medicine and Biotechnology Meeting, Antalya, Turkey, March 2015
• Invited Speaker, “Heart Failure Management: What is New?” 31st National Congress of Cardiology, Antalya, Turkey, 2015
• Invited Speaker, “Primary Prevention in CAD and Its Essential Role in the Era of Polly-Pills,” Turkey, March 2015
• Invited Speaker, “Onco-Cardiology,” Oncology Symposium, Bursa, Turkey, 2016
• Invited Speaker, “EECP and Its Mechanism of Action,” First Italian EECP Symposium, Rome, Italy, 2016

Jeffrey Teuteberg MD
• Lecturer, Molecular diagnostics for rejection surveillance, VAD/xplant coordinators, 2012-2015
• Lecturer, Advanced heart failure. Fellows, 2007-2015
• Lecturer, Advanced systolic heart failure. Fellows, 2009-2014

Krisha Tummalapalli MD
• Teacher, Cardiology Fellows, residents, medical students, nurses and other health care providers, 1990-present
• Instructor, Cardiology Fellows assigned to cardiac cath lab, 1990-present
• Course Director, Advanced Annual Transradial Symposium, 2015-present
• Proctor, Hands-on transradial access course at Shadyside Hospital, 2011-present
• Presenter, Transradial grand Rounds, April 2016
• Presenter, Interesting cases at 5th Annual Advanced AIM RADIAL International Masters Conference, 2016
• Guest speaker, various transradial courses and events, 2015-present
- Contributor, CME videos at UPMC physician resources web site, 2012-present

**Catalin Toma, MD**
- Member, General Cardiology Fellowship Evaluation Committee, 2010-present
- EuroPCR 2015: Interventional Cardiovascular Medicine, 2015

**Flordeliza Villanueva MD**
- Graduate student research and dissertation advisor, 1997-present
- PhD Committee Member, University of Pittsburgh, 2000-present
- PhD Committee Member, Norwegian University of Science and Technology, Trondheim, Norway, February 2015
- Medical students faculty advisor, 2001-present
- Post-doctoral fellows advisor, University of Pittsburgh, 1999-present
- Research supervisor, undergraduate and post-graduate students, laboratory research, 1993-present
- Research supervisor, undergraduate and post-graduate students, clinical research/multicenter clinical trials, 1994-present
- Research supervisor, undergraduate and post-graduate medical students, clinical teaching, 1992-present

**Andrew Voigt MD**
- Mentorship/teaching, EP fellow two full days per week (one lab day, one clinic day), 2014-present
- Guest speaker, QUEST Pacemaker, O’Hara Elementary School, 2015

**Timothy C. Wong MD**
- Course Director, CLRES 2108 Patient Registries and Electronic Health Records in CER, Institute for Clinical Research Education, University of Pittsburgh, 2015-present
- Task Force Member, Fellow’s Research Day, American Heart Association Three Rivers Affiliate, 2014-present
- Invited speaker, Morristown Medical Center Cardiology Grand Rounds, “Cardiac MRI T1 Mapping for the practicing cardiologist”, 2016
- MS Thesis Committee Member, University of Pittsburgh, 2016
- Facilitator, MS II Body Fluid Homeostasis Cardiovascular Course, University of Pittsburgh School of Medicine, 2013-present
- Lecturer, UPMC Cardiology Fellows Lecture Series: Hypertrophic Cardiomyopathy, Atrial Fibrillation, Preoperative Evaluation, 2014-present
# Fellowship Program

<table>
<thead>
<tr>
<th>Current Fellow</th>
<th>Medical School</th>
<th>Residency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baumgartner</td>
<td>New York University</td>
<td>Tufts Medical Center</td>
</tr>
<tr>
<td>Chonde</td>
<td>George Washington University</td>
<td>Cedars Sinai</td>
</tr>
<tr>
<td>D'Auria</td>
<td>University of Pittsburgh</td>
<td>UPMC</td>
</tr>
<tr>
<td>Desai</td>
<td>University of Michigan</td>
<td>University of Michigan</td>
</tr>
<tr>
<td>Elliott</td>
<td>University of Texas at Houston</td>
<td>UPMC</td>
</tr>
<tr>
<td>Erqou</td>
<td>Gondar College of Medicine and Health Sciences</td>
<td>UPMC</td>
</tr>
<tr>
<td>Fowler</td>
<td>Lake Erie COM</td>
<td>Cleveland Clinic</td>
</tr>
<tr>
<td>Friedman</td>
<td>Chicago Medical School</td>
<td>UPMC</td>
</tr>
<tr>
<td>Genuardi</td>
<td>Tufts University</td>
<td>Massachusetts General Hospital</td>
</tr>
<tr>
<td>Groh</td>
<td>Vanderbilt University</td>
<td>Vanderbilt University</td>
</tr>
<tr>
<td>Hackman</td>
<td>Drexel University</td>
<td>Beth Israel Deaconess</td>
</tr>
<tr>
<td>Huang</td>
<td>Albany Medical College</td>
<td>Cedars Sinai Medical Center</td>
</tr>
<tr>
<td>Johnson</td>
<td>Jefferson Medical College</td>
<td>Johns Hopkins</td>
</tr>
<tr>
<td>Kadakkal</td>
<td>University of Virginia</td>
<td>UPMC</td>
</tr>
<tr>
<td>Lander</td>
<td>Drexel University</td>
<td>UPMC</td>
</tr>
<tr>
<td>Lee</td>
<td>Northwestern University</td>
<td>Emory School of Medicine</td>
</tr>
<tr>
<td>Levenson</td>
<td>University of Pittsburgh</td>
<td>University of Michigan</td>
</tr>
<tr>
<td>Li</td>
<td>University of Michigan</td>
<td>University of Michigan</td>
</tr>
<tr>
<td>Link</td>
<td>University of Miami</td>
<td>UPMC</td>
</tr>
<tr>
<td>Masri</td>
<td>Jordan University of Science and Technology Faculty of Medicine</td>
<td>Cleveland Clinic</td>
</tr>
<tr>
<td>Mehring</td>
<td>Philadelphia College of Osteopathic Medicine</td>
<td>Georgetown University</td>
</tr>
<tr>
<td>Mulock</td>
<td>Jefferson Medical College</td>
<td>NY Presby-Weill Cornell</td>
</tr>
<tr>
<td>Rodriguez</td>
<td>University of Miami</td>
<td>University of Michigan</td>
</tr>
<tr>
<td>Pray</td>
<td>SUNY- Upstate</td>
<td>UPMC</td>
</tr>
<tr>
<td>Purohit</td>
<td>Medical University of South Carolina</td>
<td>University of Pittsburgh Medical Center (UPMC)</td>
</tr>
<tr>
<td>Teekakirikul</td>
<td>Chulalongkorn University Faculty of Medicine</td>
<td>Mt. Auburn Hospital</td>
</tr>
<tr>
<td>Wertz</td>
<td>Indiana University</td>
<td>UPMC</td>
</tr>
<tr>
<td>Zhang</td>
<td>Shanghai Jiao Tong University</td>
<td>Medstar Good Samaritan</td>
</tr>
</tbody>
</table>
**Interventional Fellowship Program**

<table>
<thead>
<tr>
<th>Current Fellow</th>
<th>Medical School</th>
<th>Residency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chauhan</td>
<td>University of Pittsburgh</td>
<td>UPMC</td>
</tr>
</tbody>
</table>

**Advanced Interventional Fellowship Program**

<table>
<thead>
<tr>
<th>Current Fellow</th>
<th>Medical School</th>
<th>Residency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dota</td>
<td>University of Toledo</td>
<td>University Hospitals – Case Western Reserve University</td>
</tr>
<tr>
<td>Jones</td>
<td>University of Pennsylvania</td>
<td>Duke University</td>
</tr>
</tbody>
</table>

**EP Fellowship Program**

<table>
<thead>
<tr>
<th>Current Fellow</th>
<th>Medical School</th>
<th>Residency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Siddoway</td>
<td>West Virginia</td>
<td>UPMC</td>
</tr>
<tr>
<td>Soma</td>
<td>Oklahoma Heart Institute, Tulsa, OK</td>
<td>Drexel University</td>
</tr>
</tbody>
</table>

**Advanced Heart Failure and Transplant Cardiology Fellowship Program**

<table>
<thead>
<tr>
<th>Current Fellow</th>
<th>Medical School</th>
<th>Residency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Holtz</td>
<td>Gerogetown University</td>
<td>University of California San Francisco</td>
</tr>
</tbody>
</table>

**Departing Fellow**

<table>
<thead>
<tr>
<th>Departing Fellow</th>
<th>Current Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fowler</td>
<td>Jeffrey, Interventional Fellowship, UPMC</td>
</tr>
<tr>
<td>Groh</td>
<td>Kate, Michigan Heart Group</td>
</tr>
<tr>
<td>Hackman</td>
<td>Brianne, HonorHealth, Phoenix</td>
</tr>
<tr>
<td>Kadakkal</td>
<td>Ajay, CHF Fellowship, Stanford University</td>
</tr>
<tr>
<td>Link</td>
<td>Christopher, Advanced Heart Failure Fellowship, UPMC</td>
</tr>
<tr>
<td>Mehring</td>
<td>Lindsay, UPMC East</td>
</tr>
</tbody>
</table>

**Interventional Fellowship Program**

<table>
<thead>
<tr>
<th>Departing Fellow</th>
<th>Current Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chauhan</td>
<td>Chirag, Biodesign Innovation Fellowship, Stanford University</td>
</tr>
</tbody>
</table>

**Advanced Interventional Fellowship Program**

<table>
<thead>
<tr>
<th>Departing Fellow</th>
<th>Current Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dota</td>
<td>Anthony, Private Practice, Las Vegas, NV</td>
</tr>
<tr>
<td>Jones</td>
<td>Christopher, Interventional cardiology, Mt. Nittany, State College</td>
</tr>
</tbody>
</table>
EP Fellowship Program

<table>
<thead>
<tr>
<th>Departing Fellow</th>
<th>Current Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Siddoway Donald</td>
<td>Private Practice, Morgantown, West Virgina</td>
</tr>
<tr>
<td>Soma Siva Kumar</td>
<td>Oklahoma Heart Institute, Tulsa, OK</td>
</tr>
</tbody>
</table>

Advanced Heart Failure and Transplant Cardiology Fellowship Program (PUH)

<table>
<thead>
<tr>
<th>Departing Fellow</th>
<th>Current Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Holtz Jonathan</td>
<td>Blair Medical Associates, Altoona PA/UPMC Presbyterian HVI</td>
</tr>
</tbody>
</table>

Fellow Awards and Honors

Aken Desai, American College of Cardiology, Geriatric Cardiology Section, Award for Care of Older Adults m 2016

Jeffrey Fowler, Outstanding Shadyside Fellow 2015-2016

Jeffrey Fowler, Chief Fellow Certificate 2015

Anil Purohit, Galal M. Ziady Memorial Award 2016

Lindsay Mehring, James A. Shaver Memorial Award 2016

Fellow Presentations


Long-term Outcomes in Adults With Congenital Heart Disease Evaluated for Heart Transplantation. Gavin W Hickey MD.; Andrea Elliot MD; Morgan Hindes; Ravi Ramani MD; Michael Mathier, MD; Timothy M Maul PhD; Stephen C Cook MD. Abstract Poster Session. American Heart Association: Orlando, Florida, November 2015

Long-term Outcomes in Adults With Congenital Heart Disease Evaluated for Heart Transplantation. Gavin W Hickey MD.; Andrea Elliot MD; Morgan Hindes; Ravi Ramani MD; Michael Mathier MD; Timothy M Maul PhD; Stephen C Cook MD. Mid Atlantic Capital Cardiology Symposium (MACCS): Washington, D.C.


Jeffrey Fowler DO, Thomas Gleason MD, Joon Sup Lee MD, Dustin Kliner MD, Forozan Navid MD, John Schindler MD Single Center TAVR Vascular Complication Rates Using Both Self-Expanding and Balloon Expandable Valves Via

Yaron Fridman, Brianne E. Hackman, Ajay Kadakkal, Hussein Abu Daya, Timothy C. Wong, Erik B. Schelbert. Myocardial Fibrosis is Prevalent in Obstructive Sleep Apnea and Associated with Hospitalization for Heart Failure or Death. EuroCMR “Best Oral Abstracts”, Florence, Italy, May 2016

Yaron Fridman, Brianne E. Hackman, Ajay Kadakkal, Hussein Abu Daya, Timothy C. Wong, Erik B. Schelbert. Myocardial Fibrosis is Prevalent in Obstructive Sleep Apnea and Associated with Hospitalization for Heart Failure or Death. Department of Medicine 14th Annual Research Day, Pittsburgh, PA May 2016

Aatif Sayeed, Yaron Fridman, Brianne E. Hackman, Ajay Kadakkal, Hussein Abu Daya, Timothy C. Wong, Erik B. Schelbert. Myocardial fibrosis associates with B-type natriuretic peptide levels and outcomes more than wall stress. EuroCMR, Florence, Italy, May 2016


Kate Groh, Galectin-3 Levels and Outcomes in Peripartum Cardiomyopathy: Results from the Multicenter IPAC Investigation. Poster, ACC Scientific Sessions, Chicago, IL, April 4, 2016

Amber Johnson, Gender Differences in the Trajectory of Recovery in Health Status Among Young Patients with Acute Myocardial Infarction-Results From the Variation in Recovery: Role of Gender on Outcomes of Young AMI Patients (VIRGO) Study. UPMC Cardiology Journal Club, November 20, 2015


Matt Lander, Effectiveness of Quality Improvement Interventions at Reducing Inappropriate Cardiac Imaging. UPMC Cardiology Journal Club, January 19, 2016

Joshua Levenson, Changes in Medical Errors after Implementation of a Handoff Program. UPMC Cardiology Journal Club, April 19, 2016

Grant Reed, Ahmad Masri,…Clinical and Angiographic Predictors of Adverse Outcomes After Percutaneous Coronary Intervention in Patients With Radiation Associated Coronary Artery Disease, Poster at AHA 2015

Masri et al. Tc-PYP scintigraphy: a re-emerging modality in the diagnosis of Transthyretin Cardiac Amyloidosis. Poster at Pittsburgh DOM research day, May 2016

Rodriguez Y, Nan J, Yasin O, Gorcsan J 3rd, Saba S. The impact of a strategy of image-guided left ventricular lead placement during cardiac resynchronization therapy on health care utilization. Poster presentation, ACC Mid-atlantic symposium. Washington, DC


Yasser Rodriguez, Comparative/Cost Effectiveness. UPMC Cardiology Journal Club, February 16, 2016

Christopher Link, Feasibility and Value of Gated Blood Pool SPECT (GBPS) Assessment of RV function in Patients Undergoing LVAD Implantation. Poster, ACC Scientific Sessions, Chicago, IL, April 4, 2016


**EP Fellows Presentations**


**Fellow Publications**


Advanced Heart Failure and Transplant Cardiology Fellow (PUH) Publications

The HVI Cardiology Section continues to define excellence in cardiovascular care in a wide variety of clinical settings, including:

- UPMC Presbyterian
- UPMC Shadyside
- UPMC Passavant-Cranberry
- Magee-Womens Hospital of UPMC
- UPMC Mercy
- UPMC St. Margaret
- UPMC East
- UPMC Horizon
- UPMC Northwest
- UPMC McKeesport
- Monongahela Valley Hospital
- Jameson Hospital
- Ohio Valley Hospital
- Uniontown Hospital
- Dubois Regional Medical Center

HVI sites of clinical operation include almost 40 clinical offices spread across Western Pennsylvania and Ohio. Clinical expansion during FY 2016 included several strategic community-based practices and faculty additions:

- Abdul Abbasi MD
- Dennis Bruemmer MD
- Stephen Chan MD
- Chelcie Costabile MD
- James Gerardo MD
- Gavin Hickey MD
- Barbara Jurig DO
- Subramania Krishnaswami, MD
- Jared Magnani MD
- Brittany Palmer MD

FY 2016 saw the continued growth of the important program Community Outreach and Cardiovascular Health (COACH) with an expanded footprint in surrounding communities. The mission of the COACH program includes:

- Community outreach
- Strengthen ties between the HVI and the greater Pittsburgh community
- Promotion of volunteerism with the HVI
- Community service
- Free care for the underserved
- Children’s health and nutrition goals and education (CHANGE)
- Childhood education program focusing initially on middle school ages
- Cardiovascular health education
- Obesity prevention
- Healthy dietary habits and physical activity promotion
The HVI financial plan for FY 2016 focused efforts on capitalizing on internal strengths and external environmental opportunities while mitigating weaknesses and external environmental threats. The HVI encountered many financial challenges in FY 2016, including coding and reimbursement changes. HVI finished the year with $121,074,526 in gross patient care revenue.

**CLINICAL QUALITY IMPROVEMENT INITIATIVES**

HVI’s Cardiology Section continues to achieve the highest quality outcomes in its effort to continually improve the care provided to our patients.

Raveen Bazaz MD, from the UPMC Center for Atrial Fibrillation, discussed a novel percutaneous technology for stroke prevention, the Watchman™ device, that was recently FDA-approved.

The Center for Atrial Fibrillation offers a range of therapies for stroke prevention in patients with AFib, including permanent closure of the left atrial appendage (LAA). It is the first center in Western Pennsylvania to offer the recently FDA-approved Watchman™ Left Atrial Appendage Closure Device for stroke prevention in select patients.

John Schindler MD discussed transradial approaches for STEMI patients and improving outcomes, as well as the technical aspects of primary PCI for these patients in Transradial PC in STEMI: Improving Outcomes

Catalin Toma MD, is the UPMC Principal Investigator for the ABSORB IV research study, which will assess the safety, effectiveness, and potential benefits of treating blockages in the coronary arteries with a temporary bioresorbable vascular scaffold compared to a commercially FDA-approved metallic drug-eluting stent.

Bryan Robertson MD discussed anticoagulant use in diagnostic catheterization, appropriate antithrombotic therapy in PCI, and transradial catheterization/PCI for orally anticoagulated patients in Anticoagulation Strategies for Transradial Catheterization.

Ravi Ramani MD is leading efforts to use tele- and video-conferencing for discussion of heart failure cases across UPMC system hospitals. With this technology, expert HF teams based at UPMC Presbyterian work with care teams in other locations to manage complex patient cases.

Patients who go to UPMC Presbyterian for heart catheterization and who receive a stent to treat clogged arteries are now being screened with a simple blood test to determine if they have a gene variant that makes them less likely to respond to a blood-thinning medication commonly prescribed after the procedure. This unique program, one of the first of its kind in the country, aims to use clinical pharmacogenomics to individualize patient treatments—part of a broader program at UPMC that could eventually include a wide variety of drugs to improve outcomes for patients.

To launch the PreCISE-Rx (Pharmacogenomics-guided Care to Improve the Safety and Effectiveness of Medications) initiative, a multidisciplinary team created streamlined processes to test patients for the relevant genes and promptly add the results as well as treatment alerts to UPMC’s electronic health record. The genetic and clinical information that is gathered also feeds UPMC’s “big data” analytics effort, which is expected to lead to new scientific insights into how and why drugs work for some patients but not others, and to identify new drug targets.

Drs. Winnie and Jeff Teuteberg’s short piece about palliative care and heart failure was recently published on the ACC website. It highlights UPMC’s comprehensive specialty heart failure palliative care program, which has grown from an inpatient consult presence and one outpatient clinic session a week to daily outpatient sessions within the HF clinic.
FACULTY

Faculty in Core Divisions
Fiscal Year 2014-2016

<table>
<thead>
<tr>
<th>Division</th>
<th>FY 2003 (Base Year)</th>
<th>FY 2014</th>
<th>FY 2015</th>
<th>FY 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiology</td>
<td>47</td>
<td>88</td>
<td>98</td>
<td>116</td>
</tr>
</tbody>
</table>

Note: Includes University of Pittsburgh full-time faculty and volunteer faculty who have a UPP appointment and excludes research associates, adjunct faculty and emeritus faculty.

Current Cardiology Faculty

Full-Time Faculty

<p>| Adelstein  | Evan | C. MD | Assistant Professor of Medicine |
| Aiyer      | Aryan| N. MD | Assistant Professor of Medicine |
| Al Ghouleh | Imad | PhD   | Assistant Professor of Medicine |
| Amidi      | Morteza | MD | Professor of Medicine |
| Barrington | William | W. MD | Associate Professor of Medicine |
| Bazaz      | Raveen | R. MD | Assistant Professor of Medicine |
| Berlacher  | Kathryn | L. MD | Assistant Professor of Medicine |
| Brode      | Susan | E. MD | Instructor in Medicine |
| Bruegger   | Dennis | MD | Visiting Associate Professor of Medicine |
| Bucklew    | Lawrence | A. MD | Assistant Professor of Medicine |
| Buffer     | Samuel | A. MD | Assistant Professor of Medicine |
| Carson     | Andy | R. PhD | Research Instructor in Medicine |
| Cavalcante | Joao | L. MD | Assistant Professor of Medicine |
| Chan       | Stephen | Y. MD, PhD | Visiting Associate Professor of Medicine |
| Chen       | Xucai | PhD | Research Associate Professor of Medicine |
| Cohen      | Jeffrey | S. MD | Assistant Professor of Medicine |
| Counihan   | Peter | J. MD | Associate Professor of Medicine |
| Crock      | Fred | W. MD | Assistant Professor of Medicine |
| Dutta      | Partha | PhD | Assistant Professor of Medicine |
| Follansbee | William | P. MD | Professor of Medicine |
| Gorcsan    | John | MD | Professor of Medicine |
| Gulati     | Vijay | K. MD | Assistant Professor of Medicine |
| Halder     | Indrani | PhD | Assistant Professor of Medicine |
| Harinstein | Matthew | E. MD | Assistant Professor of Medicine |
| Henry      | Brian | L. MD, PhD | Instructor in Medicine |
| Ishizawar  | David | C. MD | Assistant Professor of Medicine |
| Jain       | Sandeep | K. MD | Associate Professor of Medicine |
| Katz       | William | E. MD | Associate Professor of Medicine |
| Kaufman    | Brett | A. PhD | Visiting Associate Professor of Medicine |
| Kim        | Kang | PhD | Associate Professor of Medicine |
| Lee        | Ashley | MD | Assistant Professor of Medicine |
| Lee        | Jennifer | E. MD | Associate Professor of Medicine |
| Lee        | Joon | S. MD | Associate Professor of Medicine |
| Magnani    | Jared | W. MD | Visiting Associate Professor of Medicine |</p>
<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mantravadi</td>
<td>Rajkumar, MD, Adjunct Research Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Marroquin</td>
<td>Oscar, C. MD, Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Mathier</td>
<td>Michael, MD, Associate Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>McNamara</td>
<td>Dennis, M. MD, Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>McTiernan</td>
<td>Charles, F. PhD, Research Associate Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Mendenhall</td>
<td>George, S. MD, Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Muldoon</td>
<td>Matthew, F. MD, Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Mulukutla</td>
<td>Suresh, R. MD, Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Nemec</td>
<td>Jan, MD, Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Olajide</td>
<td>Oladipupo, MD, Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Pacella</td>
<td>John, J. MD, Associate Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Qin</td>
<td>Bin, PhD, Research Instructor in Medicine</td>
<td></td>
</tr>
<tr>
<td>Ramani</td>
<td>Ravi, N. MD, Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Ramesh</td>
<td>Makum, L. MD, Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Reddy</td>
<td>P. Sudhakar, MD, Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Reis</td>
<td>Steven, E. MD, Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Saba</td>
<td>Samir, MD, Associate Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Salama</td>
<td>Guy, PhD, Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Schelbert</td>
<td>Erik, B. MD, Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Schindler</td>
<td>John, T. MD, Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Schmidhofer</td>
<td>Mark, MD, Associate Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Schwartzman</td>
<td>David, S. MD, Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Scolieri</td>
<td>Sun, K. MD, Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Scott</td>
<td>Iain, PhD, Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Shalaby</td>
<td>Alaaeldin, A. MD, Associate Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Simon</td>
<td>Marc, A. MD, Associate Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Smith</td>
<td>Anson, J. MD, Associate Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Smitherman</td>
<td>Thomas, C. MD, Emeritus Professor</td>
<td></td>
</tr>
<tr>
<td>Soman</td>
<td>Prem, MD, PhD, Associate Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Sonel</td>
<td>Ali, F. MD, Associate Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Soran</td>
<td>Zeynep, O. MD, Adjunct Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>St. Hilaire</td>
<td>Cynthia, L. PhD, Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Teuteberg</td>
<td>Jeffrey, J. MD, Associate Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Thompson</td>
<td>Mark, E. MD, Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Toma</td>
<td>Catalin, MD, Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Villanueva</td>
<td>Flordeliza, S. MD, Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Voigt</td>
<td>Andrew, H. MD, Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Wang</td>
<td>Norman, C. MD, Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Wong</td>
<td>Timothy, C. MD, Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Yu</td>
<td>Francois, T. PhD, Research Instructor in Medicine</td>
<td></td>
</tr>
<tr>
<td>Zhu</td>
<td>Jianhui, MD, Research Assistant Professor of Medicine</td>
<td></td>
</tr>
</tbody>
</table>

**Affiliated Faculty with UPP Appointments**

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adhar</td>
<td>Gur, C. MD, Clinical Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Ahmed</td>
<td>Saleem, MD, Clinical Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Aromatorio</td>
<td>George, J. MD, Clinical Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Bachour</td>
<td>Khaled, MD, Clinical Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Bowman</td>
<td>Martha, A. DO, Clinical Instructor in Medicine</td>
<td></td>
</tr>
<tr>
<td>Bowser</td>
<td>Stephen, A. MD, Clinical Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Cantellops</td>
<td>Diana, M. MD, Clinical Assistant Professor of Medicine</td>
<td></td>
</tr>
</tbody>
</table>

[http://www.dom.pitt.edu/card](http://www.dom.pitt.edu/card)
<table>
<thead>
<tr>
<th>Name</th>
<th>Last Name</th>
<th>Initial</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chough</td>
<td>Simon</td>
<td>H.</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Costabile</td>
<td>Chelcie</td>
<td>L.</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Curren</td>
<td>Michael Jr</td>
<td>J.</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Davis</td>
<td>Lydia</td>
<td>S.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Dueweke</td>
<td>Eric</td>
<td>J.</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Eberz</td>
<td>Dennis</td>
<td>A.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Edwards</td>
<td>William</td>
<td>P.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Estrada</td>
<td>Tullo</td>
<td></td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Fallert</td>
<td>Michael</td>
<td>A.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Gagos</td>
<td>Dennis</td>
<td>K.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Generalovich</td>
<td>Thomas</td>
<td></td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Girdhar</td>
<td>Rabindra</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Heppner</td>
<td>Bradley</td>
<td>T.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Hess</td>
<td>Darla</td>
<td>B.</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Kliner</td>
<td>Dustin</td>
<td>E.</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Krackow</td>
<td>Jeffrey</td>
<td>D.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Krishnaswami</td>
<td>Venkataraman</td>
<td>MD</td>
<td>Clinical Professor of Medicine</td>
</tr>
<tr>
<td>Kulkarni</td>
<td>Rina</td>
<td>Abnijit</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Kunsman</td>
<td>William</td>
<td>E.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Landfair</td>
<td>Roy</td>
<td>J.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Lauer</td>
<td>William</td>
<td>J.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Linganna</td>
<td>Avinash</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Osei Wusu</td>
<td>Abena</td>
<td>A.</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Piccione</td>
<td>Elizabeth</td>
<td>A.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Rao</td>
<td>Shiv Dev</td>
<td>K.</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Robertson</td>
<td>Bryan</td>
<td>J.</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Sharma</td>
<td>Brahma</td>
<td>N.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Sharma</td>
<td>Sushant</td>
<td>B.</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Silver</td>
<td>Saul</td>
<td>J.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Staffen</td>
<td>Robert</td>
<td>N.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Suffoletto</td>
<td>Matthew</td>
<td>S.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Szabo</td>
<td>Edward</td>
<td>T.</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Tummalapalli</td>
<td>Krishnamurty</td>
<td>V.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Vesio</td>
<td>Kenneth</td>
<td>D.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Ward</td>
<td>John</td>
<td>R. DO</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Wentz</td>
<td>Christopher</td>
<td>M.</td>
<td>Clinical Instructor in Medicine</td>
</tr>
</tbody>
</table>

**Affiliated Faculty without UPP Appointments**

<table>
<thead>
<tr>
<th>Name</th>
<th>Last Name</th>
<th>Initial</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adler</td>
<td>Lawrence</td>
<td>N.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Allen</td>
<td>Christopher</td>
<td>C.</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Awan</td>
<td>Ihsan</td>
<td>U.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Berliner</td>
<td>Jennifer</td>
<td>I.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Domat</td>
<td>Imad</td>
<td></td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Falletta</td>
<td>Calogero</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Friedman</td>
<td>Abraham</td>
<td>W.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Garrett</td>
<td>Jeffrey</td>
<td>S.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Hickey</td>
<td>Gavin</td>
<td>W.</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Hreibe</td>
<td>Haitham</td>
<td>M.</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Iliescu</td>
<td>Anca</td>
<td>V.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Itzkoff</td>
<td>Jerome</td>
<td>M.</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
</tbody>
</table>

Department of Medicine  
http://www.dom.pitt.edu/card
<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>MI</th>
<th>Degree</th>
<th>Primary Title</th>
<th>Division</th>
<th>Previous Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Al Ghouleh</td>
<td>Imad</td>
<td>A.</td>
<td>PhD</td>
<td>Assistant Professor of Medicine</td>
<td>Cardiology</td>
<td>Research Instructor, Pharmacology and Chemical Biology, University of Pittsburgh</td>
</tr>
<tr>
<td>Bruemmer</td>
<td>Dennis</td>
<td></td>
<td>MD</td>
<td>Visiting Associate Professor of Medicine</td>
<td>Cardiology</td>
<td>Associate Director, Cardiology Research Center, University of Kentucky, KY</td>
</tr>
<tr>
<td>Chan</td>
<td>Stephen</td>
<td>Y.</td>
<td>MD PhD</td>
<td>Visiting Associate Professor of Medicine</td>
<td>Cardiology</td>
<td>Faculty, Harvard Medical School, MA</td>
</tr>
<tr>
<td>Dutta</td>
<td>Partha</td>
<td></td>
<td>PhD</td>
<td>Assistant Professor of Medicine</td>
<td>Cardiology</td>
<td>Instructor, Harvard Medical School, MA</td>
</tr>
<tr>
<td>Henry</td>
<td>Brian</td>
<td>L.</td>
<td>MD PhD</td>
<td>Instructor in Medicine</td>
<td>Cardiology</td>
<td>Cardiovascular Medicine Fellow, UPMC</td>
</tr>
<tr>
<td>Magnani</td>
<td>Jared</td>
<td>W.</td>
<td>MD</td>
<td>Visiting Associate Professor of Medicine</td>
<td>Cardiology</td>
<td>Assistant Professor, Boston U, MA</td>
</tr>
<tr>
<td>Qin</td>
<td>Bin</td>
<td></td>
<td>PhD</td>
<td>Research Instructor in Medicine</td>
<td>Cardiology</td>
<td>Postdoctoral Associate, University of Pittsburgh</td>
</tr>
<tr>
<td>St. Hilaire</td>
<td>Cynthia</td>
<td>L.</td>
<td>PhD</td>
<td>Assistant Professor of Medicine</td>
<td>Cardiology</td>
<td>Postdoctoral Fellow, National Heart, Lung and Blood Institute, MD</td>
</tr>
<tr>
<td>Zhu</td>
<td>Jianhui</td>
<td></td>
<td>MD</td>
<td>Research Assistant Professor of Medicine</td>
<td>Cardiology</td>
<td>Research Assistant Professor, University of Pittsburgh</td>
</tr>
</tbody>
</table>
### POST DOCS

**Current Post Docs in FY 2015-2016**

<table>
<thead>
<tr>
<th>Employee Last Name</th>
<th>Employee First Name</th>
<th>Degree Code</th>
<th>Current Title</th>
<th>Summary of activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coppin</td>
<td>Emilie</td>
<td>PhD</td>
<td>Post Doc Associate</td>
<td>Dr. Coppin is funded by the NIH grants of the lab of Dr. Partha Dutta. Her work focuses on change in hematopoietic stem cell activation and differentiation in cardiovascular disease.</td>
</tr>
<tr>
<td>Falabella</td>
<td>Micol</td>
<td>PhD</td>
<td>Post Doc Associate</td>
<td>Dr. Falabella is funded by NIH Grant GM110424 and seed funds of the lab of Dr. Brett Kaufman. Her research projects pertain to mitochondrial genome stability.</td>
</tr>
<tr>
<td>Florentin</td>
<td>Jonathan</td>
<td>PhD</td>
<td>Post Doc Associate</td>
<td>Dr. Florentin is funded by the NIH grants of the labs of Drs. Stephen Chan and Partha Dutta. His work focuses on change in hematopoietic stem cell activation and differentiation in pulmonary hypertension.</td>
</tr>
<tr>
<td>Helfield</td>
<td>Brandon</td>
<td>PhD</td>
<td>Post Doc Associate</td>
<td>Dr. Helfield is funded by the Center for Ultrasound Molecular Imaging and Therapeutics in the lab of Dr. Flordeliza Villanueva. His research projects investigate mechanisms of sonoporation.</td>
</tr>
<tr>
<td>Kang</td>
<td>Inhae</td>
<td>PhD</td>
<td>Post Doc Associate</td>
<td>Dr. Kang is funded by NIH Grant GM110424 and seed funds of the lab of Dr. Brett Kaufman. He pursues research projects pertaining to mitochondrial genome stability.</td>
</tr>
<tr>
<td>Negi</td>
<td>Vinny</td>
<td>PhD</td>
<td>Post Doc Associate</td>
<td>Dr. Negi is funded by the laboratory funds of Dr. Stephen Chan. She performs a multiple long-term studies aimed at defining the role of a specific type of molecule (non-coding RNAs) in causing the development of an often fatal vascular disease called pulmonary hypertension.</td>
</tr>
<tr>
<td>Qi</td>
<td>Zhi</td>
<td>PhD</td>
<td>Post Doc Associate</td>
<td>Dr. Qi is funded by Echo Core Lab research accounts in the lab of Dr. John Gorcsan. She continues to learn from important research work on cardiac function using advanced cardiac imaging techniques, including speckle tracking and three-dimensional echocardiography.</td>
</tr>
<tr>
<td>Sugahara</td>
<td>Masataka</td>
<td>MD</td>
<td>Post Doc Associate</td>
<td>Dr. Sugahara is funded by Echo Core Lab research accounts in the lab of Dr. John Gorcsan. He continues to learn from important research work on cardiac function using advanced cardiac imaging techniques, including speckle tracking and three-dimensional echocardiography.</td>
</tr>
<tr>
<td>Thapa</td>
<td>Dharendra</td>
<td>PhD</td>
<td>Post Doc Associate</td>
<td>Dr. Thapa is funded by the Cardiology Seed Funds of Dr. Iain Scott. He works on the characterization of GCNSL1 in mitochondrial biology, primarily in the context of cardiac metabolism and function.</td>
</tr>
<tr>
<td>Valli</td>
<td>Hanna</td>
<td>PhD</td>
<td>Post Doc Associate</td>
<td>Dr. Valli is funded by the start-up funds of the lab of Dr. Cynthia St. Hilaire. Her research project will focus on the role of CD73 and adenosine signaling in vascular disease pathologies.</td>
</tr>
<tr>
<td>Vasamsetti</td>
<td>Sathish</td>
<td>M.Sc (PhD)</td>
<td>Post Doc Associate</td>
<td>Dr. Vasamsetti is funded by the NIH grants of the lab of Dr. Partha Dutta. He is working on change in hematopoietic stem cell activation and differentiation in cardiovascular disease.</td>
</tr>
<tr>
<td>Yu</td>
<td>Qiujuen</td>
<td>MD PhD</td>
<td>Post Doc Associate</td>
<td>Dr. Yu is funded by research and seed funds of Dr. Stephen Chan. She performs a multiple long-term studies aimed at defining the role of a specific type of molecule (non-coding RNAs) in causing the development of an often fatal vascular disease called pulmonary hypertension.</td>
</tr>
</tbody>
</table>
## Terminating Post Docs–Fiscal Year 2015-2016

<table>
<thead>
<tr>
<th>Employee Last Name</th>
<th>Employee First Name</th>
<th>Degree</th>
<th>Code</th>
<th>Current Title</th>
<th>Summary of activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delgado-Montero</td>
<td>Antonia</td>
<td>MD</td>
<td>Post Doc</td>
<td>Associate</td>
<td>Dr. Delgado-Montero was funded by University of Pittsburgh Medical Center and/or Echo Core Lab research accounts by Medtronic, St. Jude, and Biotronik. Her research activities focused on cardiac function using advanced cardiac imaging techniques, including tissue Doppler imaging, strain rate imaging, and speckle tracking echocardiography. These techniques would be applied to patients with cardiovascular diseases, including those receiving cardiac resynchronization therapy or other advance therapy for heart failure.</td>
</tr>
<tr>
<td>Goda</td>
<td>Akiko</td>
<td>PhD</td>
<td>Post Doc</td>
<td>Associate</td>
<td>Dr. Goda was funded by the Echo Core Lab research, extramural and intramural grant awards, and from the Pulmonary Hypertension Development Fund in the lab of Dr. John Gorcsan. Her fellowship was to continue learning from important research work on cardiac function using advanced cardiac imaging techniques, including tissue Doppler imaging, strain rate imaging, speckle tracking echocardiography, and advanced hemodynamic analysis. These techniques would be applied to patients with pulmonary arterial hypertension, on left ventricular assist devices, cardiac resynchronization therapy, and others.</td>
</tr>
<tr>
<td>Kopechek</td>
<td>Jonathan</td>
<td>PhD</td>
<td>Post Doc</td>
<td>Scholar</td>
<td>Dr. Kopechek was funded by the Department of Health and Human Services, National Institutes of Health National Heart, Lung, and Blood Institute Research Fellowship Award, and works in the lab of Dr. Flordeliza Villanueva. His research projects were designed to develop therapeutic platforms utilizing ultrasound and ultrasound contrast agents (microbubbles), with a focus on molecular therapeutics of cardiovascular disease using nucleic acid-carrying microbubble constructs in conjunction with ultrasound.</td>
</tr>
<tr>
<td>Park</td>
<td>Daewoo</td>
<td>PhD</td>
<td>Post Doc</td>
<td>Scholar</td>
<td>Dr. Park was funded by Samsung and HNI R21 Awards (PI: Dr. Kang Kim). His research was to conduct experiments and computer simulation of ultrasound elasticity imaging.</td>
</tr>
<tr>
<td>Qin</td>
<td>Bin</td>
<td>PhD</td>
<td>Post Doc</td>
<td>Associate</td>
<td>Dr. Qin was funded by the National Institutes of Health (NIH) under the supervision of Dr. Flordeliza Villanueva. His research project and responsibilities centered on the development of a siRNA delivery platform, using ultrasound and microbubble technology, for the treatment of cancer.</td>
</tr>
</tbody>
</table>
**PUBLICATIONS**

**High Impact Publications**


**Peer-Reviewed Publications: 2014, 2015, 2016**


Allred C, Berlacher K, Aggarwal S, Auseon A. Mind the Gap: Poor Representation of Medical Education Authors and Publications in Cardiology. J Grad Med Ed. 2016. (accepted)


Fowler NR, Johnson KG, Li J, Moore CG, Saba S, Lopez OL, Barnato AE. Use of Cardiac Implantable Electronic Devices in Older Adults with Cognitive Impairment. JAMA Intern Med. 2014 Sep;174(9):1514-6.


Henry BL1, Gabris B1, Li Q1, Martin B2, Giannini M1, Parikh A2, Patel D1, Haney J2, Schwartzman DS1, Shroff SG2, Salama G1. Relaxin suppresses atrial fibrillation in aged rats by reversing fibrosis and upregulating Na+ channels. Heart Rhythm. 2016 Apr;13(4):983-91.


Joseph NT, Muldoon MF, Manuck SB, Matthew KA, MacDonald L, Grosch J, Kamarck TK. The Role of Occupational Status in the Association between Job Strain and Ambulatory Blood Pressure during Working and Nonworking Days. Psychosomatic Medicine. In press.


Khambaty T, Stewart JC, Muldoon MF, Kamarck TW. Depressive Symptom Clusters as Predictors of 6-Year Increases in Insulin Resistance: Data from the Pittsburgh Healthy Heart Project. Psychosomatic Medicine. 2014;76:363-369.


Marsland AL, Joseph NT, Kamarck TK, Muldoon MF, Manuck SB. Childhood SES and the Occurrence of Recent Negative Life Events as Predictors of Circulating and Stimulated Levels of Interleukin-6. Psychosomatic Medicine. In press.


**Mendenhall GS, Saba, S.** Prophylactic lead extraction at implantable cardioverter-defibrillator generator change. Circ Arrhythm Electrophysiol. 2014 Apr;7(2):330-6.


Saba S. Left Atrial Appendage Closure: Killing 2 Birds with 1 Stone? J Am Heart Assoc. 2015 May 14;4(5).


Shariff N, Rahim S, Jain S, Barrington W, Saba S. Long-Term Outcome of Defibrillator Recipients Included in the Federal Audit Conducted by the Department of Justice. Am J Cardiol. 2014 Sep 1;114(5):723-6.


Teuteberg JJ, Simon MA. Non-invasive screening for cardiac allograft vasculopathy: Go small or go home? J Heart Lung Transplant 2015;34:158-60.


The Division of Endocrinology and Metabolism ended FY 2016 with continued strong performance by providing exceptional health care delivery and achieving excellence in our combined missions of education, clinical care, and research.

Outpatient volume (see Table 1) was comparable to last year when two clinical office sites opened at UPMC Mercy and UPMC McKeesport to treat the growing population of patients with diabetes, metabolic diseases, and other endocrine disorders in western Pennsylvania and beyond. Inpatient consultations decreased slightly (see Table 2) from last year, largely due to the Affordable Care Act and subsequent shift in where patients receive care. This trend is anticipated to continue as re-admission rates continue to decline and more patients take advantage of insurers’ wellness programs to keep them out of the hospital. This past fiscal year, the Division secured almost $2 million in grant funding despite significant reductions in awards from both public and private sponsors.

**Highlights of Our Year**

- Erin E. Kershaw MD, was recruited to become the new Division Chief, effective July 2016. Dr. Kershaw is a well-respected, NIH-funded physician-scientist with expertise in obesity, diabetes, and metabolism. She will strengthen our present activities and promote further growth in both clinical and research areas.
- The Division’s longstanding NIH-funded Institutional National Research Service Award (T32) for research training in Endocrinology and Metabolism was renewed in 2016 with Robert O’Doherty PhD serving as Principal Investigator. This grant funds research training for four PhD or MD postdoctoral positions each year.
- Michael Jurczak PhD, a prominent researcher from Yale, joined the Division as an Assistant Professor and member of our growing Center for Metabolism and Mitochondrial Medicine (C3M).
- Five new clinical faculty members (named below) accepted offers of employment to join the Division in FY17.
  - Dr. Pooja Manroa and Dr. Elena Morariu completed their fellowship training in Endocrinology and Metabolism at UPMC and joined the faculty on July 1 and August 1, respectively.
  - Dr. Alexandria Opata completed her fellowship training in Endocrinology and Metabolism at the Icahn School of Medicine at Mt. Sinai in New York. She joined the faculty on July 18, 2016.
  - Dr. Yunjiao Joy Wang completed her fellowship training in Endocrinology and Metabolism at the University of Colorado in Denver. She joined the faculty September 1, 2016.
  - Dr. Esra Karslioglu French completed her fellowship training in Endocrinology and Metabolism at UPMC in 2011 and subsequently joined the endocrine faculty at New York University. She will return to Pittsburgh and join the faculty in November 2016.
- A Division research retreat was held in December 2015 to showcase the efforts and encourage collaboration among faculty, staff, and T32 trainees.
- Under the direction of Linda Siminerio PhD, the Division printed its first *Endocrinology Update* newsletter.
- Members of the Division have received national and international recognition from the American Diabetes Association, National Institutes of Health, National Osteoporosis Foundation, and American Society for Bone and Mineral Research as leaders in the research and care of patients with diabetes, obesity, and osteoporosis.
RESEARCH

The Endocrinology Division's total grant support from NIH remains strong even in this difficult funding climate. In FY16, Division faculty expended more than $1.9 million in research funds (direct and indirect) from the National Institutes of Health (NIH), American Diabetes Association (ADA), and pharmaceutical trials. The majority of funding was received from the NIH. Researchers in the Division of Endocrinology obtain major salary support from their NIH grants, with the remainder funded by private foundations, clinical revenue, or Division reserves. Areas of clinical research excellence include diabetes, obesity, calcium metabolism, osteoporosis, and thyroid cancer. Areas of excellence in basic research include obesity; type 1 and type 2 diabetes; insulin resistance; pancreatic beta cell function, survival and regeneration; and thyroid cancer molecular diagnosis and management. Part of the research activity occurs in collaboration with investigators from other departments, such as the VMI, in the area of endothelial function in health and disease. Division faculty members are highly visible at the annual meetings and on the leadership councils of the American Diabetes Association, the American Society for Bone and Mineral Research, the International Diabetes Federation, the National Osteoporosis Foundation, and the Endocrine Society. Research is supported by faculty research grants, an NIH Training Grant (now in its 43rd year), and by the NIH-funded CTSA Clinical Translational Research Center. Outstanding facilities for microarray gene profiling, DNA and protein synthesis and sequencing, animal care, proteomics, cellular imaging, and bioinformatics and biostatistics are available.

New Research Initiatives and Ongoing/Planned Collaborations

New initiatives within the Division of Endocrinology include the following:

- Mara Horwitz MD is continuing to recruit participants for a study evaluating bone loss during lactation and bone regeneration after weaning in women during the postpartum period.
- Shane LeBeau MD, co-investigator from the Division of Endocrinology, is collaborating with investigators from UPMC Molecular Pathology and Endocrine Surgery to identify molecular markers in thyroid cancer that have diagnostic utility and that can be used to detect clinically aggressive tumors. This also involves collaboration with Oncology at the UPMC Hillman Cancer Center to create a referral center for advanced thyroid cancer.
- Linda Siminerio PhD developed a “Glucose to Goal” program that is being implemented in UPMC primary care clinical centers.
- Mary Korytkowski MD is prospectively investigating the short- and long-term effects of inpatient hypoglycemic events on cognitive function and ability to comply with complex multicomponent insulin regimens that are provided to many patients with diabetes or newly recognized hyperglycemia at the time of hospital discharge.
Collaborative efforts include the following:

- Sue Challinor MD is working with Paul Gardner MD in Neurosurgery to create methodologies for development of a database for tracking outcomes following pituitary surgery.
- James DeLany PhD is collaborating with Bret Goodpaster PhD at The Florida Hospital–Sanford-Burnham Translational Research Institute on metabolic studies in type 2 diabetes.
- Erin Kershaw MD, in collaboration with a multi-institutional team from Yale, Brown, University of Cincinnati, and the University of Pittsburgh, has been funded by the NIH to determine the impact of a novel human obesity-risk variant on obesity-associated phenotypes.
- Erin Kershaw MD, in collaboration with Bret Goodpaster PhD at The Florida Hospital–Sanford-Burnham Translational Research Institute on metabolic studies in type 2 diabetes.
- Erin Kershaw MD, in collaboration with a multi-institutional team from Yale, Brown, University of Cincinnati, and the University of Pittsburgh, has been funded by the NIH to determine the impact of a novel human obesity-risk variant on obesity-associated phenotypes.
- Mary Korytkowski MD is collaborating with Eileen Chasens PhD in the School of Nursing on a study investigating the contribution of obstructive sleep apnea to outcomes in patients with diabetes. She is also collaborating with Vicki Helgeson PhD at Carnegie Mellon University on a study investigating the role of partner support on patient outcomes in type 2 diabetes.
- Harsha Rao MD collaborates with clinical units and informatics at the VAMC on automated expert systems for inpatient glycemic management. Dr. Rao has mentored two endocrine fellows in successfully obtaining funding through the VAMC for patient-oriented outcomes research. One project investigates the use of concentrated insulins (U500 insulin) in outpatients and hospitalized patients with type 2 diabetes. Another investigates clinical management of men with hypogonadism.
- David Rometo MD is collaborating with John Jakicic PhD from the Department of Health and Physical Activity and Anita Courcoulas MD from Bariatric Surgery to develop a weight-loss center in the Center for Diabetes and Endocrinology.
- Fred Toledo MD is in discussions with several groups for collaborations with metabolic research studies, including a study of a novel compound with potential for diabetes therapy being conducted jointly with Dr. Nicholas Giannoukakis at Allegheny Health Network.
Faculty Research Interests

Sue Challinor MD
Dr. Challinor is interested in the outcomes of endoscopic endonasal surgery for pituitary tumors, Cushing's Disease, and acromegaly. She is also interested in the use of bilateral adrenal vein sampling for distinguishing ACTH Independent Bilateral Macronodular Adrenal Hyperplasia from Unilateral Functioning Adenoma for patients with Cushing's syndrome and bilateral adrenal masses.

Ronald Codario MD
Dr. Codario's research interests include U-500 Insulin, both outpatient and inpatient use, as well as testosterone therapy, cardiovascular disease, and inpatient IV bisphosphonate initiation protocol for patients with Cushing's syndrome and bilateral adrenal masses.

James DeLany PhD
Dr. DeLany's research interests include: (1) the role of energy expenditure, physical activity, and energy intake in the development of obesity and in effective weight loss, as well as the changes during and after weight loss through bariatric surgery and behavioral intervention; 2) understanding the relation between skeletal muscle characteristics, mitochondrial function, substrate utilization, body composition, and insulin sensitivity; and (3) examining metabolic factors related to the increased risk of development of obesity and diabetes in African American women. In studies of energy metabolism and physical activity, state of the art methodology is applied, including longitudinal measures of body composition by dual energy x-ray absorptiometry, total energy expenditure by doubly labeled water, assessment of resting metabolic rate and substrate utilization by indirect calorimetry, and the use of multisensor physical activity monitors. For examination of insulin sensitivity, state of the art methodology used includes hyperinsulinemic, euglycemic clamps with stable isotope glucose tracer to differentiate between liver and peripheral insulin sensitivity, skeletal muscle biopsies, high resolution respirometry, histology and electron microscopy. Ongoing and planned studies will include examination of the role mitochondrial genetics in insulin sensitivity and positron emission tomography studies of skeletal muscle and adipose tissue glucose metabolism. In addition, Dr. DeLany provides scientific leadership and technical expertise for the Mass Spectrometry Lab to be able to function as a "core laboratory" for stable isotope methodologies and quantification of blood and tissue compounds for investigators within the University of Pittsburgh community as well as outside investigators who need these services.

Frederick DeRubertis MD
Dr. DeRubertis has had a 43-year career in medical education, which has involved teaching medical students, medical residents, endocrine fellows, and practicing physicians via multiple venues. He has been Co-Director of the Endocrine Disorder Course for second-year medical students at the University of Pittsburgh School of Medicine for over 30 years. His excellence in teaching has been recognized by the Endocrine Fellows who have selected him as teacher of the year for nine consecutive years. He has served as a Co-Director of the Department of Medicine's flagship Continuing Medical Education course for practicing physicians, the annual Update in Internal Medicine Course for over 20 years. He directed the twice-monthly Chief of Medicine Conference at VAPHS, a case-based grand rounds type of didactic sessions attended by medical students, residents, and staff physicians.

John Dubé PhD
Dr. Dubé's research interests include: 1) the role of lipolysis in skeletal muscle biology; 2) substrate energetics in human health and disease with a special interest in sickle cell disease; and 3) the mechanisms associated with lifestyle interventions (diet and exercise) on tissue metabolism. His research involves cell culture, rodents models, and human clinical studies to address these important topics.

Susan Greenspan MD
Dr. Greenspan studies geriatric osteoporosis, including its pathophysiology, evaluation, and treatment, and at UPMC she serves as Director of both the Osteoporosis Prevention and Treatment Center as well as bone health at Magee Women's Hospital. She also serves on NIH/NIA's Board of Scientific Counselors and its Clinical Trial Advisory Panel. In addition, she is a member of the National Osteoporosis Foundation's Board of Trustees and chairs its Education
Mara Horwitz MD
Dr. Horwitz is a clinical metabolic bone researcher with a primary interest in the interaction of parathyroid hormone (PTH) and parathyroid hormone-related peptide (PTHrP) on mineral homeostasis, the skeleton, and vitamin D metabolism. This work has evolved to include NIH-sponsored clinical studies in osteoporosis, humoral hypercalcemia of malignancy, and hyperparathyroidism as well as lactation and its calcitropic/skeletal biology in both Caucasians and African Americans. Dr. Horwitz has also collaborated on numerous osteoporosis and epidemiology studies with epidemiologists at the University of Pittsburgh Graduate School of Public Health.

Michael Jurczak PhD
Dr. Jurczak's lab focuses on the relationship between nutrient excess, mitochondrial overload, and the pathogenesis of metabolic diseases, such as fatty liver, insulin resistance, and type 2 diabetes. Mitochondrial dysfunction and ectopic lipid accumulation in the liver are both associated with insulin resistance in human subjects, but the cause and effect of these associations remain unclear. Dr. Jurczak's lab is specifically interested in a mitochondrial repair mechanism called mitophagy that regulates the selective removal of damaged mitochondria via the autophagosomal pathway. Because autophagy is suppressed in mouse models of obesity and fatty liver disease, it is likely that mitophagy is similarly impaired and may contribute to the decline in mitochondrial function seen in human patients. Interestingly, a key component of the mitophagy pathway, a ubiquitin E3 ligase called Parkin, is upregulated in liver of obese mice. This change may represent a compensatory response to remove damaged mitochondria from hepatocytes or result directly from the loss of autophagy. Dr. Jurczak's group is using a genetic approach to test whether the loss of Parkin-mediated mitophagy in the liver predisposes mice to mitochondrial dysfunction, ectopic lipid accumulation, and insulin resistance. The lab employs in vivo and ex vivo approaches in transgenic mouse models and specializes in using radioactive and stable metabolic isotopes to measure substrate turnover and flux.

Erin Kershaw MD
Dr. Kershaw's academic mission is to advance the understanding and treatment of obesity and related metabolic disorders by combining basic and translational research with clinical expertise. Obesity is a global public health threat that is frequently associated with additional metabolic abnormalities, including insulin resistance, glucose intolerance, dyslipidemia, and hypertension (the metabolic syndrome). Together, these abnormalities contribute to diseases affecting virtually every organ system. Dr. Kershaw's laboratory focuses on defining the mechanisms by which intracellular lipid metabolism (synthesis, storage, hydrolysis, and oxidation) contributes to obesity and associated metabolic disorders. Most recently, Dr. Kershaw's research efforts have focused on pathways of triacylglycerol hydrolysis (lipolysis)—arguably one of the most fundamental processes in metabolism. She is working to define how tissue-specific triacylglycerol hydrolysis contributes to metabolic phenotypes, not only in the metabolic syndrome, but also in variety of other diseases, ranging from infertility to cancer. Another major focus of her laboratory is to identify and characterize additional proteins and pathways that contribute to metabolic disease. These efforts fall into two main areas: 1) characterizing novel adipocyte-secreted factors (adipokines) and their relationship to metabolic disease in humans, and 2) characterizing novel genes/loci linked to metabolic disease in humans. The laboratory uses a combination of molecular, cellular, physiological, and translational approaches. The ultimate goal is to develop more effective strategies for prevention and treatment of obesity and associated metabolic disorders.

Mary Korytkowski MD
Dr. Korytkowski’s research focuses on improving inpatient and outpatient care and outcomes of people with diabetes. In the outpatient setting, Dr. Korytkowski serves as co-investigator and study physician for the NIH-sponsored Look AHEAD Study, which is examining long-term cardiovascular outcomes in individuals with type 2 diabetes randomly assigned to intensive versus conventional lifestyle intervention. She is co-investigator on two additional NIH-sponsored
clinical trials, one investigating interactions between treatment for obstructive sleep apnea (OSA) and diabetes outcomes; and another exploring relationship dynamics in couples affected by diabetes. Previously, she was Diabetology site PI for the Bypass Angioplasty Revascularization Investigation in type 2 diabetes (BARI 2D), which sought to define optimal glucose lowering and cardiovascular intervention strategies for type 2 diabetes complicated by coronary artery disease.

In the inpatient setting, much of Dr. Korytkowski’s work has focused on investigating specific glycemic management strategies in hospitalized patients with diabetes, such as those who are hospitalized using insulin pump therapy or who receive enteral nutrition therapy. A recent study is investigating hypoglycemia unawareness in hospitalized patients as a risk for severe hypoglycemia and adverse outcomes.

An additional area of interest that crosses inpatient and outpatient areas is the use of electronic medical records to investigate patterns of glycemic management and cardiovascular outcomes in diabetes. Because diabetes is a systemic disorder affecting multiple organ systems, Dr. Korytkowski has wide collaborations with investigators in other Divisions within the Department of Medicine as well as with other universities.

**Shane LeBeau MD**
Dr. LeBeau has clinical interests in thyroid, parathyroid, pituitary, and adrenal disorders. He serves as the Co-Director of the UPMC/UPCI Multidisciplinary Thyroid Center (MTC), which provides patients access to streamlined care from specialists in endocrinology, surgery, radiology and pathology during a single visit. He is an active member of the Endocrine Society and the American Thyroid Association. He has been recognized as one of “Pittsburgh's Best Doctors” and has been listed among America’s “Best Doctors” annually since 2007.

**Pooja Manroa MD**
Dr. Manroa’s research is quality improvement initiatives and comparative effectiveness research. She has participated in research and quality improvement projects during her training and was awarded a $10,000 research grant by the VA Pittsburgh MEPS grant 2015-2016.

**Elena Morariu MD**
Dr. Morariu has been involved in the Diabetes Sleep Treatment Trial at University of Pittsburgh Medical Center and VA Pittsburgh Healthcare System, which is investigating the impact of CPAP treatment on glycemic control in patients with type 2 diabetes and obstructive sleep apnea. Additionally, she has been involved in a quality improvement project investigating the effectiveness of electronic consultation for diabetes at VAPHS.

**Jason Ng, MD**
Dr. Ng’s research focus is the improvement of delivery of care and multidisciplinary models in diabetes mellitus management. In addition, he studies the pathophysiology underlying insulin resistance in skeletal muscle and adipose tissue.

**Robert O’Doherty PhD**
Dr. O’Doherty’s research interests include the association between states of over nutrition and resulting metabolic disturbances, most notably obesity, NAFLD, and Type 2 Diabetes. He has nearly 25 years of experience in this arena, utilizing a range of metabolic, physiological, biochemical, molecular and immunological approaches in a range of models, notably the mouse and rat, primary tissue culture, and immortal cell lines. The major foci of his current research efforts are in the role of the immune system in the regulation of metabolism.

**Linda Siminerio RN PhD**
Dr. Siminerio’s research focuses on the translation of evidence-based practice into clinical and community settings, with a concentration on improving access and quality to diabetes self-management and care. Projects have spanned a array of initiatives that include, but are not limited to: (i) evaluating care models in primary care; (ii) implementing telemedicine to deliver diabetes specialty care to underserved communities; (iii) using technological approaches to
enhance shared decision making; (iv) developing initiatives to improve the care and education of the hospitalized patient with diabetes; and (vi) interventions that address the behavioral and psychosocial needs associated with chronic disease management. Additionally, Dr. Siminerio has collaborated with faculty to develop and validate diabetes databases, including a national registry to monitor diabetes behavioral and education outcomes for the American Diabetes Association. As a nationally-recognized expert on self-management education and care delivery models in both pediatric and adult populations, she serves as the Principal Investigator on numerous studies that have garnered the attention of both governmental and non-governmental organizations, nationally and internationally. Knowledge gained from this line of study have led to the implementation of diabetes quality efforts in underserved global communities and the U.S. military as well as policy changes affecting reimbursement practices.

Sandra Sobel MD
Dr. Sobel's clinical research interests focus on the area of quality improvement through the use of diabetes technology, such as insulin pumps and continuous glucose monitoring devices. As part of a multidisciplinary team at the University of Pittsburgh, it was found that a peri-operative glycemic management protocol developed for same-day surgery procedures for individuals with insulin pumps was safe and effective for procedures less than 120 minutes long. In the outpatient setting, she is conducting a quality improvement study to determine if a seven-day use of a continuous glucose monitoring device helps improve glycemic control in individuals with uncontrolled diabetes and reduces hypoglycemia in individuals with frequent hypoglycemia or hypoglycemic unawareness. In addition, she provides mentorship to several Internal Medicine residents and supports their interest in quality improvement initiatives, which range from the proper use of DKA protocol to the utilization of the Certified Diabetes Educators in outpatient clinics.

Maja Stefanovic-Racic MD PhD
Dr. Stefanovic-Racic's research interests relate to mechanisms involved in the development of non-alcoholic fatty liver disease (NAFLD), which is associated with obesity, insulin resistance, and type 2 diabetes. More specifically, she has been focusing on the role of immune system, both innate and adaptive, in transitioning from simple liver steatosis (fatty liver) to liver inflammation (nonalcoholic steatohepatitis or NASH). Results of experiments performed in animal models of obesity showed that one immune cell type, the dendritic cells, plays a particularly important role in liver inflammation. The most intriguing question related to this finding is whether manipulation of dendritic cells could reduce inflammation in liver and other tissues in obesity, leading to a reduced risk of developing insulin resistance and diabetes.

Frederico Toledo MD
Dr. Toledo conducts research on both the pathophysiology and treatment of insulin resistance in humans. His research program has been investigating the abnormal cellular processes involved in insulin resistance of skeletal muscle. One of his main interests is the potential involvement of mitochondria in human insulin resistance in the context of obesity, type 2 diabetes, and aging. Dr. Toledo pioneered studies that demonstrated for the first time the presence of mitochondrial plasticity in response to lifestyle changes, such as weight loss and exercise training. His clinical-translational lab employs state-of-the-art methods to measure glucose and lipid metabolism in vivo. Examples include euglycemic clamps, IVGTTs, stable-isotope tracer methods, indirect calorimetry, exercise testing, muscle and fat biopsies, and electron microscopy.

Dr. Toledo's research also focuses on novel treatments for diabetes. He led an NIH-funded clinical study that demonstrated substantial beneficial effects of hydroxychloroquine on insulin resistance and beta cell function in obesity. His clinical research experience also includes agents such as rimonabant, vildagliptin, and AZD9668. He was a co-investigator in the TrialNet study consortium and participated in studies of type 1 diabetes prevention using immunomodulators.

Lauren Willard DO
Dr. Willard has an interest in clinical and quality improvement studies related to both the management of thyroid disease and glycemic management.
Faculty Research and Other Scholarly Activities

Heather Brooks MD
- Fellowship Review Committee Member, 2011-present
- Challenging Endocrine Case Conference Organizer, 2010-present

Sue Challinor MD
- Director, Pituitary Program and Conference, 2006-present
- Director, Adrenal Disorders and Conference, 2014-present

James DeLany PhD
- Ad hoc Reviewer, 2016/01 Integrative Nutrition and Metabolic Processes (INMP) Study Section, 2015
- Member, American Diabetes Association's Research Grant Review Committee, 2014-present

Frederick DeRubertis MD
- Co-Director, Endocrine Disorders Course, PMS II Course, 1990-present
- Dean's Committee, VA Medical Center, University of Pittsburgh School of Medicine, 1979-present
- Chairman, Committee for Promotion and Appointments, Department of Medicine, 1990-present
- Housestaff Selection Committee, Department of Medicine, 1979-present
- Housestaff Competency Committee, Department of Medicine, 1979-present
- Member, Department of Medicine Common Fellowship Committee, 1990-present
- Endocrine Fellow Selection Committee, Endocrine Division, 1990-present
- Curriculum Committee, Endocrine Fellowship Program, 1990-present
- Veterans Hospital, Chief of Medicine, Medical Executive Board, Executive Leadership Board, Patient Safety/Adverse Events and Procedure Review, Professional Standard Board, VAPHS, Chair, Acute Medicine Council, VISN 4, VA, Residency Review Committee, Residency Leadership Committee, VAPHS, Multiple Ad Hoc VA Committee Assignments, 1979-present
- Chair, Telehealth Council VAPHS, 2011-present
- Fellow, American College of Physicians, 1973-present

Michelle Griffith MD
- Patient Education Governance Committee Physician Champion, 2015
- Medical Director, Center for Diabetes and Endocrinology, 2014-present
- Physician Leader, Telemedicine Services for Diabetes, 2012-present

Mara Horwitz MD
- Invited Symposium Speaker, ENDO 2015, San Diego, CA, 2015
- Medical Monitor, Education and Compliance Office for Human Subject Research, 2014-present
- Clinician in Residence, The Innovation Institute, 2014-present
- JCEM Editorial Board Member, 2014-present

Michael Jurczak PhD
- Center for Metabolic and Mitochondrial Medicine (C3M), 2015-present
- American Diabetes Association Research Grant Review Committee, 2016
Erin Kershaw MD
- Ad hoc Reviewer, Howard Hughes Medical Institute International Scholars Program, 2016
- Ad hoc Reviewer, NIH/NHLBI, Special Emphasis Panel, 2016
- Ad hoc Reviewer, NIH/NIDDK Integrative Nutrition and Metabolic Processes (INMP), 2016
- Invited Speaker, 6th International Symposium on Lipid and Membrane Biology, Graz, Austria, 2016
- Invited Speaker, Muscle Health Awareness Symposium, York University, Toronto, Canada, 2016
- Member of Session Planning Committee, American Diabetes Association Scientific Sessions, 2016
- Invited Speaker, American Diabetes Association Scientific Sessions, 2016
- Session Chair, American Diabetes Association Scientific Sessions, 2016
- American Board of Clinical Lipidology – Clinical Lipidology Certification, 2015
- American Board of Obesity Medicine – Obesity Medicine Certification, 2015
- American Board of Internal Medicine – Endocrinology Re-Certification, 2015
- Howard Hughes Medical Institute (HHMI), Physician-Scientist Early Career Award, 2009-2014
- Member, Endocrine T32 Program Oversight Committee, 2014-present

Mary Korytkowski MD
- Interim Division Chief, Endocrinology and Metabolism, 2012-2016
- American Board of Internal Medicine Endocrinology, Diabetes and Metabolism Board Exam Committee, 2014-2016
- Chair, UPMC Diabetes Patient Safety Committee, 2001-present
- Member, Quality Assurance, 2002-present

Shane LeBeau MD
- Department of Medicine Research Day, Best Clinical Research Award, 2015
- UPMC/UPCI Eighth Annual Multidisciplinary Thyroid Cancer Symposium: A Rationale Use of Radioiodine in the Treatment of Differentiated Thyroid Cancer, 2015
- UPMC’s Update in Internal Medicine, Evaluation and Management of Thyroid Nodules, 2015
- Co-Director, Multidisciplinary Thyroid Center, 2014-present
- Co-Director, Medical Student II, Endocrine Disorders Course, 2012-present
- Committee Member, Fellowship Evaluations Review Committee, 2011-present

Sann Mon MD
- Educational Coordinator, UPMC McKeesport Internal Medicine Residency Program, 2014-present

Robert O'Doherty PhD
- Society of Redox Biology and Medicine Annual Meeting, Boston, MA (Symposium Speaker), 2015
- Editorial Board, American Journal of Physiology, Endocrinology and Metabolism, 2010-present
- Director, Translational Metabolic Research Center, 2013-present
- Co-Director, Center for Metabolic and Mitochondrial Medicine (C3M), 2014-present
- Research Oversight Committee, Endocrinology Fellows, 2013-present
- Endocrinology Fellow Recruitment Committee, 2012-present
R. Harsha Rao MD
- Invited Abstract Reviewer, Annual Endocrine Society Meeting, 2015
- Co-Chair, ADA Postgraduate Course, 2012-2014
- Associate Director, Fellowship Program in Endocrinology, 2015
- VAMC Division Chief, Endocrinology, 2000-present

Jodie Reider MD
- Director, Pancreas Service, 2014-present
- Director, Inpatient Diabetes Service, 2011-present
- UPMC Diabetes Patient Safety Committee, 2010-present
- Cystic Fibrosis QI committee, 2013-present
- Member, Falk Clinic Diabetes Task Force, 2010-present

David Rometo MD
- Diplomat, American Board of Obesity Medicine, 2015

Rose Ann Jeannette Salata MD
- Medical Director, UPMC Endocrinology and Diabetes Center, Monroeville, 2013-2016
- Co-Director, Multidisciplinary Endocrine Genetics Program, 2010-present
- Vice President, Greater Pittsburgh Diabetes Club, 2014-present
- Member, Center for Diabetes and Endocrinology Task Force, 2005-present
- Fellow, American College of Endocrinology, 1994-present

Linda Siminerio PhD
- Chair, National Diabetes Education Program, 2015-2017
- Associate Editor, Clinical Diabetes and Endocrinology, 2014-2016
- Honorary Lifetime Member, International Diabetes Federation
- Chair, American Association of Diabetes Educators (AADE) Annual Meeting, 2014

Sandra Sobel MD
- Clinical Chief of Endocrinology, UPMC Mercy, 2014-present

Maja Stefanovic-Racic MD
- Program Director, Fellowship Program in Endocrinology, 2015-present
- UPMC Diabetes Patient Safety Committee, 2003-present

Frederico Toledo MD
- Director of Clinical Research, Center for Metabolic and Mitochondrial Medicine (C3M), 2014-present
- Invited Peer-Reviewer, Abstracts Selection Committee, American Diabetes Association Scientific Sessions, 2015
- Member, Sub-Specialty Education Committee, Department of Medicine, 2007-present
## GRANTS AND CONTRACTS AWARDED

<table>
<thead>
<tr>
<th>PUBLIC HEALTH SERVICE</th>
<th>PROJECT DESCRIPTION</th>
<th>INSTITUTION</th>
<th>DIRECT COSTS</th>
<th>INDIRECT COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DELANY, JAMES</td>
<td>Skeletal muscle lipid and insulin resistance in aging</td>
<td>Florida Hospital/NIA</td>
<td>$13,021</td>
<td>$7,031</td>
</tr>
<tr>
<td>DELANY, JAMES</td>
<td>Noninvasive fat quantification of liver using ultrasound thermal strain imaging</td>
<td>NIBIB</td>
<td>$10,882</td>
<td>$5,849</td>
</tr>
<tr>
<td>DELANY, JAMES</td>
<td>Decreased fat oxidation - metabolic inflexibility in African American women</td>
<td>NIDDK</td>
<td>$209,569</td>
<td>$90,431</td>
</tr>
<tr>
<td>DELANY, JAMES</td>
<td>Body composition &amp; ree responses to bariatric surgeries</td>
<td>Columbia University/NIDDK</td>
<td>$88,183</td>
<td>$28,342</td>
</tr>
<tr>
<td>DELANY, JAMES</td>
<td>Parkin’s role in hepatic mitochondrial turnover, steatosis and insulin resistance</td>
<td>NIDDK</td>
<td>$117,100</td>
<td>$9,368</td>
</tr>
<tr>
<td>JURCZAK, MICHAEL</td>
<td>Developing a dual stable isotope approach to measure lipolysis in mice</td>
<td>Georgia Regents University/NIDDK</td>
<td>$30,523</td>
<td>$3,053</td>
</tr>
<tr>
<td>KERSHAW, ERIN</td>
<td>Adipocyte lipolysis, adipose tissue function, and lipodystrophy</td>
<td>NIDDK</td>
<td>$25,000</td>
<td>$13,500</td>
</tr>
<tr>
<td>KORYTKOWSKI, MARY T.</td>
<td>Action for health in diabetes extension (Look Ahead)</td>
<td>NIDDK</td>
<td>$2,813</td>
<td>$1,519</td>
</tr>
<tr>
<td>KORYTKOWSKI, MARY T.</td>
<td>The effect of treatment of OSA on diabetes self management and glycemic control</td>
<td>NIDDK</td>
<td>$11,255</td>
<td>$6,077</td>
</tr>
<tr>
<td>KORYTKOWSKI, MARY T.</td>
<td>Limited competition for the continuation of look ahead (Action for Health in Diabetes) consortium</td>
<td>NIDDK</td>
<td>$5,628</td>
<td>$3,039</td>
</tr>
<tr>
<td>KORYTKOWSKI, MARY T.</td>
<td>Links of communal coping in couples with diabetes to self-care behavior</td>
<td>Carnegie-Mellon University/NIDDK</td>
<td>$10,923</td>
<td>$5,898</td>
</tr>
<tr>
<td>KORYTKOWSKI, MARY T.</td>
<td>Self-regulation &amp; collaborative coping with type 1 diabetes over the life span</td>
<td>Carnegie-Mellon University/NIDDK</td>
<td>$38,850</td>
<td>$20,978</td>
</tr>
<tr>
<td>O’DOHERTY, ROBERT</td>
<td>Cellular and molecular mechanisms of HSC dysfunction in chronic inflammation</td>
<td>NIAID</td>
<td>$7,065</td>
<td>$3,815</td>
</tr>
<tr>
<td>O’DOHERTY, ROBERT</td>
<td>Nitrite and hypoxia increases biogenesis and insulin sensitivity</td>
<td>NHLBI</td>
<td>$20,150</td>
<td>$10,881</td>
</tr>
<tr>
<td>Name</td>
<td>Title</td>
<td>Sponsor</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>--------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>---------------</td>
<td>--------------</td>
<td>----------------</td>
</tr>
<tr>
<td>O'DOHERTY, ROBERT</td>
<td>DENDRITIC CELLS AND OBESITY</td>
<td>NIDDK</td>
<td>$230,505</td>
<td>$124,473</td>
</tr>
<tr>
<td>SIMINERIO, LINDA</td>
<td>GLUCOSE TO GOAL: A MODEL TO SUPPORT DIABETES MANAGEMENT IN PRIMARY CARE</td>
<td>NIDDK</td>
<td>$37,500</td>
<td>$17,582</td>
</tr>
<tr>
<td>SIMINERIO, LINDA</td>
<td>NATIONAL DIABETES EDUCATION PROGRAM</td>
<td>HAGER SHARP, INC./NIDDK</td>
<td>$30,000</td>
<td>$0</td>
</tr>
<tr>
<td>TOLEDO, FREDERICO G. S.</td>
<td>EXPLORATORY STUDY OF DIFFERENT DOSES OF ENDURANCE EXERCISE IN PEOPLE WITH PARKINSON'S DISEASE</td>
<td>UNIVERSITY OF COLORADO/NINDS</td>
<td>$3,015</td>
<td>$1,553</td>
</tr>
<tr>
<td>TOLEDO, FREDERICO G. S.</td>
<td>LABS SUB-STUDY: MECHANISMS OF DURABILITY OF TYPE 2 DIABETES REMISSION</td>
<td>OREGON HEALTH SCIENCES/NIDDK</td>
<td>$17,109</td>
<td>$5,907</td>
</tr>
<tr>
<td></td>
<td>TOTAL PUBLIC HEALTH SERVICE</td>
<td></td>
<td>$909,091</td>
<td>$359,296</td>
</tr>
<tr>
<td></td>
<td><strong>SOCIETY AND FOUNDATIONS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DELANY, JAMES</td>
<td>ALLIANCE OF RANDOMIZED TRIALS OF MEDICINE VS. METABOLIC SURGERY IN TYPE 2 DIABETES: ARMMS-T2D</td>
<td>CLEVELAND CLINIC</td>
<td>$11,903</td>
<td>$0</td>
</tr>
<tr>
<td>SIMINERIO, LINDA</td>
<td>CONNECTING SMARTPHONES WITH ELECTRONIC HEALTH RECORD TO FACILATE BEHAVIORAL GOAL MONITORING IN DIABETES</td>
<td>UNIVERSITY OF TEXAS/RW JOHNSON RESEARCH INSTITUTE</td>
<td>$13,394</td>
<td>$0</td>
</tr>
<tr>
<td>TOLEDO, FREDERICO G. S.</td>
<td>REDISCOVERING HYDROXYCHLOROQUINE AS A NOVEL INSULIN SENSITIZER IN HUMANS</td>
<td>AMERICAN DIABETES ASSOCIATION</td>
<td>$152,691</td>
<td>$22,903</td>
</tr>
<tr>
<td>TOLEDO, FREDERICO G. S.</td>
<td>NEUTROPHIL ELASTASE INHIBITION AS ADJUNCTIVE THERAPY TO IMPROVE GLUCOMETABOLIC VARIABLES IN OBSESE, INSULIN-RESISTANT TYPE 2 DIABETIC PATIENTS</td>
<td>ALLEGHENY-SINGER RESEARCH INSTITUTE/ASTZEN</td>
<td>$194,439</td>
<td>$74,019</td>
</tr>
<tr>
<td></td>
<td>TOTAL SOCIETY AND FOUNDATIONS</td>
<td></td>
<td>$372,427</td>
<td>$96,922</td>
</tr>
<tr>
<td>Industry</td>
<td>Project Description</td>
<td>Principal Investigator</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>----------</td>
<td>---------------------</td>
<td>------------------------</td>
<td>--------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Industry</td>
<td>Implementing and Evaluating Insulin Intensification Approaches in the Patient-Centered Medical Home</td>
<td>Becton, Dickinson, and Company</td>
<td>$83,566</td>
<td>$19,411</td>
</tr>
<tr>
<td>Industry</td>
<td>A Phase 1/2 Multi-Center, Randomized, Double-Blind, Placebo-Controlled, Multiple Ascending-Dose Clinical Study Investigating the Safety, Tolerability, and Efficacy of Intravenous MTP-131 for the Treatment of Mitochondrial Myopathy in Subjects with Genetic</td>
<td>Reata Pharmaceuticals, Inc.</td>
<td>$11,600</td>
<td>$0</td>
</tr>
<tr>
<td>Industry</td>
<td>A Phase 2 Study of the Safety, Efficacy, and Pharmacodynamics of RTA 408 in the Treatment of Mitochondrial Myopathy</td>
<td>Reata Pharmaceuticals, Inc.</td>
<td>$1,176</td>
<td>$0</td>
</tr>
<tr>
<td>Total Industry</td>
<td></td>
<td></td>
<td>$96,342</td>
<td>$19,411</td>
</tr>
<tr>
<td>Public Health Service</td>
<td></td>
<td></td>
<td>$909,091</td>
<td>$359,296</td>
</tr>
<tr>
<td>Society and Foundations</td>
<td></td>
<td></td>
<td>$372,427</td>
<td>$96,922</td>
</tr>
<tr>
<td>Industry</td>
<td></td>
<td></td>
<td>$96,342</td>
<td>$19,411</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>$1,377,860</td>
<td>$475,629</td>
</tr>
</tbody>
</table>
TEACHING ACTIVITIES

Division faculty are actively involved in didactic teaching in the Endocrine Disorders Course for second-year medical students as well as the clinical training of medical students, residents, and fellows. Division faculty received outstanding evaluations by medical students for both formal coursework in the second year, and clinical teaching in the third and fourth years. In a parallel development, improvements in the quality and quantity of applicants for the fellowships have increased dramatically. From a pool of more than 160 applicants, the clinical fellowship program filled all five first-year slots with the first fifteen candidates on the match rank list this year.

Along with other national endocrinology training programs, the Division participates in the National Resident Matching Program (NRMP). Recent and current fellows have trained at Columbia, Duke, Brown, Johns Hopkins, Pitt, Penn, Jefferson, Cornell, UVA, Dartmouth, Harvard, and other excellent institutions. Because of our unusually high clinical volumes, and the number of clinical faculty who are dedicated to teaching, training in clinical endocrinology provides exposure to a high-volume and exceptionally diverse patient population. The Division's proud tradition of excellence in teaching continues to set the standards for superior patient care in the specialty of endocrinology and metabolism as evidenced below.

- The following faculty taught the Endocrine Disorders Courses in 2016: Heather Brooks MD, Sue Challinor MD, Ronald Codario MD, Fred DeRubertis MD, Sanjay Dixit MD, Susan Greenspan MD, Michelle Griffith MD, Mara Horwitz MD, Erin Kershaw MD, Mary Korytkowski MD, Shane LeBeau MD, Helena Levitt, MD, Hussain Mahmud MD, Emily Martin, MD, Jodie Reider MD, R. Harsha Rao MD, Michelle Roberts MD, David Rometo MD, Rose Salata MD, and Maja Stefanovic-Racic MD.
- James DeLany PhD, Robert O'Doherty PhD, Harsha Rao MD, and Maja Stefanovic-Racic MD taught the Fuel Metabolism course for 1st-year medical students.
- Jason Ng MD gave Diabetic Ketoacidosis Management lectures to 3rd-year medical students.
- Frederico Toledo MD was an invited reviewer for the 2015 American Diabetes Association Scientific Sessions Abstract Committee.
- Erin Kershaw MD, was invited to serve on the Session Planning Committee for the 2016 American Diabetes Association Scientific Sessions.
- Harsha Rao MD was an invited abstract reviewer for the 2015 Endocrine Society’s 97th Annual Meeting and Expo.
- Linda Siminerio PhD was invited to serve as Chair of the National Diabetes Education Program, a joint program of NIH, CDC, and Prevention magazine.
- Shane LeBeau MD and Hussain Mahmud MD were invited speakers at UPMC’s Update in Internal Medicine.
- Michelle Griffith MD, Mara Horwitz MD, Shane LeBeau MD, Michelle Roberts MD and David Rometo MD taught the Advanced Physical Exam Course for 2nd-year medical students.
- Sandra Sobel MD was invited to present at the Endocrine Society Fellows Program on Type 1 Diabetes Management conducted as part of ENDO2016 in Boston, MA in April 2016.
- Mary Korytkowski MD was invited to serve as one of four physician scientist presenters from the United States at a Best of ADA Conference in Delhi and Kolkata, India in October 2015.
**Teaching Honors and Awards**

Heather Brooks MD  
- Endocrine Fellow Summer Lecture Series, 2015

Sue Challinor MD  
- Endocrine Fellow Summer Lecture Series, 2015  
- Awardee, Outstanding Teachers, Endocrine Fellows, 2015-2016

Ronald Codario MD  
- Awardee, Dr. Frederick DeRubertis Division of Endocrinology Golden Apple Teaching Award recipient, 2016  
- Awardee, Outstanding Teachers 2nd Year Medical School Courses, 2016

Fred DeRubertis MD  
- Endocrine Fellow Summer Lecture Series, 2015  
- Awardee, Outstanding Teachers 2nd Year Medical School Courses, 2016

Sanjay Dixit MD  
- Awardee, Outstanding Teachers, Endocrine Fellows, 2015-2016  
- Awardee, Outstanding Teachers 2nd Year Medical School Courses, 2016

Michelle Griffith MD  
- Awardee, Outstanding Teachers 2nd Year Medical School Courses, 2016

Mara Horwitz MD  
- Endocrine Fellow Summer Lecture Series, 2015

Hussain Mahmud MD  
- Awardee, Outstanding Teachers, Endocrine Fellows, 2015-2016

Erin Kershaw MD  
- Endocrine Fellow Summer Lecture Series, 2015  
- Awardee, Outstanding Teachers 2nd Year Medical School Courses, 2016

Mary Korytkowski MD  
- Awardee, Outstanding Teachers, Endocrine Fellows, 2015-2016  
- Awardee, Outstanding Teachers 2nd Year Medical School Courses, 2016

Shane LeBeau MD  
- Awardee, Outstanding Teachers, Endocrine Fellows, 2015-2016  
- Awardee, Outstanding Teachers 2nd Year Medical School Courses, 2016

Emily Martin MD  
- Awardee, Outstanding Teachers 2nd Year Medical School Courses, 2016
Hussain Mahmud MD
- Endocrine Fellow Summer Lecture Series, 2015
- Awardee, Outstanding Teachers 2nd Year Medical School Courses, 2016

Jason Ng MD
- Awardee, Outstanding Teachers, Endocrine Fellows, 2015-2016

R. Harsha Rao MD
- Endocrine Fellow Summer Lecture Series, 2015
- Awardee, Outstanding Teachers 2nd Year Medical School Courses, 2016
- Awardee, “Excellence in Education” lecturer awarded by the Medical Student Class of 2016 for valued contributions and dedication to teaching of the organ systems

Jodie Reider MD
- Awardee, Outstanding Teachers 2nd Year Medical School Courses, 2016

David Rometo MD
- Awardee, Outstanding Teachers 2nd Year Medical School Courses, 2016

Rose Ann Jeannette Salata MD
- Awardee, Outstanding Teachers, Endocrine Fellows, 2015-2016
- Awardee, Outstanding Teachers 2nd Year Medical School Courses, 2016

Maja Stefanovic-Racic MD
- Awardee, Outstanding Teachers, Endocrine Fellows, 2015-2016
- Awardee, Outstanding Teachers 2nd Year Medical School Courses, 2016
**Fellowship Program**

<table>
<thead>
<tr>
<th>Current Fellow</th>
<th>Medical School</th>
<th>Residency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acharya Runa</td>
<td>University of Nebraska College of Medicine, Omaha, NE</td>
<td>University of Iowa, Des Moines, IA</td>
</tr>
<tr>
<td>Clark Alexandra</td>
<td>University of Pittsburgh School of Medicine</td>
<td>Duke University Health System</td>
</tr>
<tr>
<td>Criner Kristin</td>
<td>Temple University School of Medicine</td>
<td>UPMC</td>
</tr>
<tr>
<td>Dowlatshahi Samaneh</td>
<td>Tehran School of Medical Sciences, Iran, Islamic Republic of</td>
<td>St. Francis Hospital, Chicago, IL</td>
</tr>
<tr>
<td>Edem Dinesh</td>
<td>Topiwala National Medical College, India</td>
<td>Johns Hopkins University/Sinai Hospital, Baltimore, MD</td>
</tr>
<tr>
<td>Gomberg Monica</td>
<td>Chicago Medical School at Rosalin Franklin University of Medicine &amp; Science</td>
<td>UPMC</td>
</tr>
<tr>
<td>Manroa Pooja</td>
<td>Topiwala National Medical College, India</td>
<td>Cleveland Clinic Foundation</td>
</tr>
<tr>
<td>Morariu Elena</td>
<td>University of Pittsburgh School of Medicine</td>
<td>UPMC</td>
</tr>
<tr>
<td>Nguyen Ha</td>
<td>University of Medicine and Pharmacy of Ho Chi Minh City, Vietnam</td>
<td>Einstein Medical Center</td>
</tr>
<tr>
<td>Selk Karen</td>
<td>Lincoln Memorial University-DeBusk College of Osteopathic Medicine, Cumberland Gap, TN</td>
<td>UPMC</td>
</tr>
<tr>
<td>Thangudu Arti</td>
<td>The University of Texas School of Medicine, San Antonio, TX</td>
<td>Tulane University, New Orleans, LA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Departing Fellow</th>
<th>Current Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criner Kristin</td>
<td>Temple University School of Medicine and Hospital</td>
</tr>
<tr>
<td>Clark Alexandra</td>
<td>VA of Pittsburgh, PA</td>
</tr>
<tr>
<td>Gomberg Monica</td>
<td>St. Claire, Bethel, PA - Associates in Endocrinology</td>
</tr>
<tr>
<td>Manroa Pooja</td>
<td>UPMC Endocrinology faculty, Pittsburgh</td>
</tr>
<tr>
<td>Morariu Elena</td>
<td>UPMC Endocrinology faculty, Pittsburgh</td>
</tr>
<tr>
<td>Nguyen Ha</td>
<td>MD Anderson Cancer Center</td>
</tr>
</tbody>
</table>

**Fellow Abstracts**

**Nguyen H.** Ron Codario, Harsha Rao. The use of insulin U500 in hospitalized patients at the Veterans Affairs (VA) Pittsburgh Health Care system. ADA 2016; accepted for oral presentation.


**Edem, D.** Krug, E. Difficult to control hypothyroidism despite good compliance. (Abstract Number THR-001) Endocrine Society 2015.

Bhandari, S., Edem, D., Krug, E. Natural history of untreated insulinoma over a course of 7 years. (Abstract Number THR-316) Endocrine Society 2015.


Fellow Presentations


Gomberg, MA. Invited Speaker to the "Chronic Disease Case Studies" MS course in the Department of Health and Physical Activity. "Management of Type 2 Diabetes". March 2016.


Manroa P, Potoski L, Martin E, Rao H. Impact of Endocrine Care on Glycemic Management in Type 2 Diabetes (T2DM) Using Either Continuous Subcutaneous Insulin Infusion (CSII) or Multiple Daily Insulin Injections (MDI). American Diabetes Association (ADA) June 2016; New Orleans, LA. Moderated Poster Discussion Symposium.

Fellow Publications


CLINICAL CARE

The diabetes/obesity epidemic and the increasing recognition of thyroid disease and osteoporosis are driving demand for endocrinologists in the western Pennsylvania population and across the United States. To address this demand, the Division of Endocrinology has worked to improve patient access in western Pennsylvania by increasing provider availability in established areas, opening new outpatient offices at UPMC Mercy and McKeessport, and instituting diabetes telemedicine services to rural areas in the region.

There are 23 clinical faculty in the Division of Endocrinology who provide inpatient endocrinology and diabetes consultative services at the UPMC Oakland campus, UPMC Mercy, UPMC McKeessport, and the Pittsburgh Veterans Administration Medical Center. Outpatient care is provided at the Center for Diabetes and Endocrinology in Falk Clinic in Oakland and at community-based sites in Monroeville, Mt. Lebanon, Mt. Nebo, UPMC Mercy and UPMC McKeessport. Clinic visits exceeded 2,000 visits per month, or more than 25,000 per year. New patients account for 18% of all office visits. Approximately 30% of all outpatient visits are for thyroid-related disorders, 50% are for diabetes and related disorders, and the remaining 20% are for osteoporosis, other disorders of calcium and mineral metabolism, pituitary and adrenal disease, lipid disorders, male and female reproductive disorders, and other rare endocrine diseases (e.g. carcinoid syndrome, neuroendocrine tumors, multiple endocrine neoplasias). Clinicians in the Division of Endocrinology consistently provide high quality outpatient care to their patients with diabetes. Compliance with standards of care as recognized by the Endocrine Society and the American Diabetes Association (ADA) exceed national averages.

In an effort to improve physician productivity, the Division expanded outpatient appointment access by increasing the number of appointments per clinic session and moving the practice to uniform and, on average, longer clinic sessions. The clinical operations team also developed new, meaningful methodologies for tracking productivity and achieving close to 100% room utilization in the outpatient setting.

The University of Pittsburgh Diabetes Institute has organized the second-largest network of American Diabetes Association (ADA)-recognized diabetes self-management education programs in the US. There are 50 established sites in a variety of clinical settings where patients are able to receive these educational sessions. These include all UPMC hospitals, primary care practices, and community-based clinics. Working with the University of Pittsburgh Diabetes Institute Registry and ADA-Certified Diabetes Education Network, the Division launched large-scale quality improvement initiatives across the UPMC system and the UPMC Health Plan. A national self-management program database entitled Chronicle has been developed and is being used as a national repository for the ADA Self-Management Education Recognition Program.

Access to quality diabetes care and education has also been promoted through the Diabetes Institute team. Telemedicine and telephone technology are being implemented and evaluated in an effort to apply technological

<table>
<thead>
<tr>
<th>Table 1: Endo Historical Clinic Visit Volume (a)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>New</td>
</tr>
<tr>
<td>Return</td>
</tr>
<tr>
<td>TOTAL VOLUME</td>
</tr>
</tbody>
</table>

(a) Provider visits only, excludes labs

<table>
<thead>
<tr>
<th>Table 2: Endo Inpatient Consult Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category</td>
</tr>
<tr>
<td>---------------------------------------</td>
</tr>
<tr>
<td>Endocrine/Diabetes Encounters</td>
</tr>
</tbody>
</table>
approaches for improved access to expert diabetes management. Investigators and clinicians are recognized nationally and internationally for their contributions to evidence-based diabetes care.

In collaboration with the Diabetes Prevention Support Center (DPSC), more than 1,000 health care providers have also been trained on primary prevention. Along with training, support tools such as DVDs and online programs have been designed. Members of the Diabetes Institute and the DPSC are active leaders in the development of the National Diabetes Prevention Program under the direction of the Centers for Disease Control (CDC).

Efforts are ongoing in the development and validation of a database of the more than 185,000 patients with diabetes who receive care in UPMC hospitals or associated outpatient facilities and clinics in western Pennsylvania. This is the largest diabetes registry of unselected patients in the United States. Medicare, the VA, and Kaiser-Permanente have larger—but demographically selected—diabetes registries.

Under the leadership of Mary Korytkowski MD and Jodie Reider MD, the Division of Endocrinology oversees the UPMC Diabetes Inpatient Safety Committee. This committee is dedicated to implementation of system-wide computer-based physician order-entry initiatives targeting rational goal directed inpatient glycemic management as a way of improving patient outcomes while minimizing risk for hypoglycemia and other adverse events. These initiatives have led to marked, large-scale improvements in the management and outcomes relating to the care of hospitalized patients with diabetes and newly recognized hyperglycemia with reductions in hospital lengths of stay and improved compliance with national recommendations for inpatient glycemic management. Mary Korytkowski MD has been recognized nationally for her work in this area and has been involved in national consensus panels that develop these guidelines.

Under the direction of Shane LeBeau MD, a Thyroid Cancer Registry continues to represent one of the largest in the country. There are approximately 800 patients with thyroid cancer who are followed in the UPMC Multidisciplinary Thyroid Center outpatient clinic which is located geographically in the UPMC Center for Diabetes and Endocrinology. This center structures patient visits for evaluation of a thyroid nodule to allow clinical evaluation, fine needle aspiration biopsy when indicated with same day cytological analysis, oncogene mutation analysis when indicated, and immediate referral to endocrine surgery when necessary. This reduces any anxiety that can occur with uncertainties and prolonged delays in diagnosis and treatment.

To address the growing prevalence of obesity and associated metabolic disorders in the Western PA area, David Rometo MD has been named as Clinical Leader of the Weight Loss Program in the Center for Diabetes and Endocrinology. Dr. Rometo has established two clinically effective programs for patients who are seeking to lose weight as an alternative to or in combination with bariatric surgery, based on evidence demonstrating recidivism in some patients following these procedures. Dr. Rometo has established a multidisciplinary Optifast Program and a Physician Supervised Weight Loss Program. He has actively engaged other endocrinologists and advanced practice providers in the Division as a way of extending the availability of this program in helping patients to achieve successful weight loss and improved health outcomes. He is following outcomes among participants through a Quality Improvement initiative approved by the UPMC QI Committee.

**Telemedicine**

In FY16, diabetes telemedicine outpatient volumes at UPMC Bedford and UPMC Northwest increased by 59% from last fiscal year. These tele-visits with Michelle Griffith MD and Lauren Willard DO are facilitated by having pre-visit laboratory results managed by the diabetes educator in advance of the appointment. The operational team is exploring opportunities for expansion to other areas where endocrinologists are in short supply.
## Clinic Locations

<table>
<thead>
<tr>
<th>Location</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPMC Endocrinology and Diabetes Center</td>
<td>Falk Medical Bldg, 3601 Fifth Avenue, Suite 3b, Pittsburgh, PA 15213, USA</td>
</tr>
<tr>
<td>UPMC Endocrinology and Diabetes Center at UPMC Mercy</td>
<td>UPMC Mercy Hospital, 1400 Locust Street, Suite 5120, Pittsburgh, PA 15219, USA</td>
</tr>
<tr>
<td>UPMC Endocrinology and Diabetes Center, Mt. Nebo</td>
<td>259 Mt Nebo Pointe Drive, Pittsburgh, PA 15237, USA</td>
</tr>
<tr>
<td>UPMC Endocrinology and Diabetes Center, UPMC Monroeville Oxford Drive</td>
<td>400 Oxford Drive, Suite 100, Monroeville, PA 15146, USA</td>
</tr>
<tr>
<td>UPMC Endocrinology and Diabetes Center, South Hills</td>
<td>733 Washington Road, Suite 204, Pittsburgh, PA 15221, USA</td>
</tr>
<tr>
<td>UPMC Endocrinology and Diabetes Center at UPMC McKeesport</td>
<td>500 Hospital Way, Painter Building, Suite 400, McKeesport, PA 15132, USA</td>
</tr>
</tbody>
</table>
CLINICAL QUALITY IMPROVEMENT INITIATIVES

Faculty members and fellows in the Division of Endocrinology are actively involved in quality improvement initiatives in the inpatient and outpatient setting. An ongoing QI Project entitled A Diabetic Ketoacidosis (DKA) Power Plan to Reduce Frequency of Rebound Hyperglycemia is being conducted by several faculty and fellows in the Division of Endocrinology (Fellows: Pooja Manroa MD, Runa Acharya MD, Faculty: Ronald Codario MD, Rose Salata MD, and Mary Korytkowski MD). Preliminary findings from this project were presented at the Department of Medicine Annual Research Day where this received the Clinical Research Award.

A summary of this project follows:

Rebound hyperglycemia and recurrent DKA due to premature discontinuation of IV Insulin and insufficient dosing of SC insulin has been observed at UPMC. Two problem areas were identified. One was uncertainty regarding titration of the insulin infusion following acute DKA management and fluid resuscitation. Another was the administration of insufficient doses of SC insulin at the time of transition from the insulin infusion. To overcome these deficiencies, the established UPMC DKA protocol was revised to directly address these deficiencies and introduced into the UPMC hospital electronic medical record (Cerner) as a DKA PowerPlan (PP).

Efficacy and safety of this modified PP was investigated by comparing the following outcomes during similar time periods pre- and post-implementation:

- Appropriateness of IV insulin discontinuation defined as a BG < 200 mg/dl with a normal anion gap (AG).
- Recurrent DKA defined as new increase in AG.
- Recurrence of DKA
- Rebound hyperglycemia defined as blood glucose (BG) > 300 mg/dl in the 24-hour period following resolution of DKA.
- Hypoglycemia defined as BG < 70 mg/dl during the 24 hours following IV insulin discontinuation.

To date, retrospective chart review has been performed for patients admitted with primary diagnosis of DKA between August and September of the year preceding (pre-PP, n=40) and following (post-PP, n=40) PP implementation. The groups were similar in age (pre- vs. post-PP: 39±13 vs 37±14 years), BMI (26.4±7.0 vs 27.7±7.0 kg/m^2), gender, HbA1c (11.6±3.0 vs 10.9±2.9%), admission BG (570±234 vs 576±262 mg/dl) or AG (27±8 vs 26±7). Inappropriate discontinuation of IV insulin (40 vs 10%, p=0.004), recurrent DKA (35 vs 8%, p=0.005), and rebound hyperglycemia (64 vs 35% of patients, p=0.001) occurred more prior to implementation of the PP. No differences were observed for hypoglycemic, DKA complications, or hospital length of stay.

To date, these results demonstrate that the revised DKA-PP addresses the previously identified deficiencies in DKA management.
FACULTY

Faculty in Core Divisions
Fiscal Year 2014-2016

<table>
<thead>
<tr>
<th>Division</th>
<th>FY 2003 (Base Year)</th>
<th>FY 2014</th>
<th>FY 2015</th>
<th>FY 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endocrinology</td>
<td>26</td>
<td>25</td>
<td>27</td>
<td>26</td>
</tr>
</tbody>
</table>

Note: Includes University of Pittsburgh full-time faculty and volunteer faculty who have a UPP appointment and excludes research associates, adjunct faculty and emeritus faculty.

Current Endocrinology and Metabolism Faculty

Full-Time Faculty

<table>
<thead>
<tr>
<th>Faculty Name</th>
<th>Title</th>
<th>Degree</th>
<th>Division</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amati</td>
<td>Francesca</td>
<td>MD</td>
<td>Adjunct Research Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Challinor</td>
<td>Sue</td>
<td>M.</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>de Toledo</td>
<td>Frederico</td>
<td>G.S.</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>DeLany</td>
<td>James</td>
<td>P.</td>
<td>Visiting Research Associate Professor of Medicine</td>
</tr>
<tr>
<td>Dube</td>
<td>John</td>
<td>J.</td>
<td>Adjunct Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Goodpaster</td>
<td>Bret</td>
<td>H.</td>
<td>Adjunct Professor of Medicine</td>
</tr>
<tr>
<td>Horwitz</td>
<td>Mara</td>
<td>MD</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Jurczak</td>
<td>Michael</td>
<td>J.</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Kershaw</td>
<td>Erin</td>
<td>E.</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Korykowski</td>
<td>Mary</td>
<td>T.</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>O'Doherty</td>
<td>Robert</td>
<td>M.</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Rao</td>
<td>R. Harsha</td>
<td>H.</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Roberts</td>
<td>Michelle</td>
<td>M.</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Salata</td>
<td>Roseann</td>
<td>J.</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Schoiswohl</td>
<td>Gabriele</td>
<td>PhD</td>
<td>Research Associate</td>
</tr>
<tr>
<td>Siminerio</td>
<td>Linda</td>
<td>M.</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Stefanovic-Racic</td>
<td>Maja</td>
<td>MD, PhD</td>
<td>Assistant Professor of Medicine</td>
</tr>
</tbody>
</table>

Affiliated Faculty with UPP Appointments

<table>
<thead>
<tr>
<th>Faculty Name</th>
<th>Title</th>
<th>Degree</th>
<th>Division</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abbasi</td>
<td>Munira</td>
<td>S.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Brooks</td>
<td>Heather</td>
<td>E.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Coyne</td>
<td>Christopher</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Dixit</td>
<td>Sanjay</td>
<td>B.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Griffith</td>
<td>Michelle</td>
<td>L.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>LeBeau</td>
<td>Shane</td>
<td>O.</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Levitt</td>
<td>Helena</td>
<td>E.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Mahmud</td>
<td>Hussain</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Mon</td>
<td>Sann Yu</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Ng</td>
<td>Jason</td>
<td>M.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Rometo</td>
<td>David</td>
<td>A.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Sobel</td>
<td>Sandra</td>
<td>I.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Willard</td>
<td>Lauren</td>
<td>A.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
</tbody>
</table>
## Affiliated Faculty without UPP Appointments

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>MI</th>
<th>Degree</th>
<th>Primary Title</th>
<th>Division</th>
<th>Previous Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aarons</td>
<td>Jerome</td>
<td>H.</td>
<td>MD</td>
<td>Clinical Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bahl</td>
<td>Vijay</td>
<td>K.</td>
<td>MD</td>
<td>Clinical Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bahl</td>
<td>Sachin</td>
<td></td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blyani</td>
<td>Archana</td>
<td></td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Casu</td>
<td>Anna</td>
<td></td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Codario Jr.</td>
<td>Ronald</td>
<td>A.</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grimes</td>
<td>Bernard</td>
<td>J.</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hagg</td>
<td>Sigrid</td>
<td>A.</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Johnston</td>
<td>Jann</td>
<td>M.</td>
<td>MD</td>
<td>Clinical Associate Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Martin</td>
<td>Emily</td>
<td>R.</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schmeltz</td>
<td>Ralph</td>
<td></td>
<td>MD</td>
<td>Clinical Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Varma</td>
<td>Swarna</td>
<td></td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## New Faculty Hires

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>MI</th>
<th>Degree</th>
<th>Primary Title</th>
<th>Division</th>
<th>Previous Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jurczak</td>
<td>Michael</td>
<td>J.</td>
<td>PhD</td>
<td>Assistant Professor of Medicine</td>
<td>Endocrinology</td>
<td>Instructor, Yale U, CT</td>
</tr>
</tbody>
</table>
## POST DOCS

### Current Post Docs in FY 2015-2016

<table>
<thead>
<tr>
<th>Employee Last Name</th>
<th>Employee First Name</th>
<th>Degree Code</th>
<th>Current Title</th>
<th>Summary of activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edmunds</td>
<td>Lia</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Edmunds' research focuses on the pathogenesis of insulin resistance as relate hepatic lipid metabolism and mitochondrial function. Using both in vitro and in vivo models, Dr. Edmunds explores the role of Park2, an E3 ubiquitin-protein ligase that promotes autophagic degradation of damaged mitochondria (mitophagy), in type 2 diabetes and metabolism.</td>
</tr>
<tr>
<td>Frahm</td>
<td>Krystle</td>
<td>PhD</td>
<td>Postdoctoral Scholar</td>
<td>Dr. Frahm's research focuses on gender-specific effects of glucocorticoids on hypothalamic development. She is using state-of-the-art genomic approaches with fetal hypothalamic neural progenitor/stem cells to identify glucocorticoid-regulated genes that impact proliferation and fate determination.</td>
</tr>
<tr>
<td>Harmon</td>
<td>Daniel</td>
<td>PhD</td>
<td>Postdoctoral Scholar</td>
<td>Dr. Harmon's research focuses on the crosstalk between metabolism and the immune system. Various models of high-fat feeding, overnight fasting, and direct lipid infusion in genetically-modified mice are used to understand mechanisms of dendritic cell recruitment to the liver. Additional studies are underway to identify functional characteristics of dendritic cell populations in the liver, and to evaluate changes in activity during obesity development.</td>
</tr>
</tbody>
</table>

### Terminating Post Docs in FY 2015-2016

<table>
<thead>
<tr>
<th>Employee Last Name</th>
<th>Employee First Name</th>
<th>Degree Code</th>
<th>Current Title</th>
<th>Summary of activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rariy</td>
<td>Chevon</td>
<td>MD</td>
<td>Postdoctoral Scholar</td>
<td>Dr. Rariy's research focused on the examination of health care delivery models that enhance diabetes care and self-management education in primary care and specialist practice. She tested programs that support team-based care and self-management that were shown to improve glycemia, behavioral and psychosocial outcomes in patients with type 2 diabetes in diverse communities. She was invited to present her findings at the American Diabetes Association Scientific Sessions and the American Association of Diabetes Educators Annual Meetings.</td>
</tr>
<tr>
<td>Reeves</td>
<td>Valerie</td>
<td>PhD</td>
<td>Postdoctoral Scholar</td>
<td>Dr. Reeves’ research efforts focused on the role of ATGL-mediated TG hydrolysis in metabolic syndrome and related diseases using cells and genetically-engineered mouse models. She additionally evaluated the role of novel adipokines in human metabolic disease.</td>
</tr>
<tr>
<td>Surlow</td>
<td>Beth</td>
<td>PhD</td>
<td>Postdoctoral Scholar</td>
<td>Dr. Surlow’s research focused on investigating the effects of adipose triglyceride lipase (ATGL) activity within immune cells on energy and metabolic homeostasis. She used mouse models lacking ATGL, both globally and in the myeloid cell lineage, to assess immune cell production, function, and energetics, and evaluated systemic energy and glucose metabolism in these mice.</td>
</tr>
</tbody>
</table>
PUBLICATIONS

High Impact Publications


  The mechanisms contributing to diet-induced obesity remain elusive. A previous report suggested that global deficiency of PARKIN might protect against diet-induced obesity and hepatic steatosis. In this report, Dr. Jurczak’s team investigated the mechanisms by which PARKIN might influence this process. PARKIN is a ubiquitin E3 ligase that regulates mitochondrial homeostasis by selectively labeling damaged mitochondria for removal from the cell. It was therefore paradoxical that deleting PARKIN in mice resulted in protection from nutritional stress in liver.

  Through a series of in vivo and ex vivo studies, Dr. Jurczak’s team determined that this protection was secondary to altered intestinal lipid absorption and not directly due to loss of PARKIN in liver. These studies suggested a novel role for intestinal PARKIN in the protection from high-fat diet induced obesity and demonstrated that more refined models will be necessary to understand the role of PARKIN in liver.


  Obesity is a global public health epidemic, and yet the causes remain poorly understood. In this report, Dr. Erin Kershaw from the Division of Endocrinology joined forces with an outstanding multi-institutional, interdisciplinary team from the University of Pittsburgh, Brown University, Yale University, the University of Cincinnati, and the Island of Samoa to identify novel genetic factors contributing to obesity. Samoa has the highest prevalence of obesity in the world. The team conducted a genome-wide association study (GWAS) for genes linked to obesity-associated traits in this unique population. In doing so, they identified a novel genetic variant in a poorly characterized gene, CREBRF, that increases the risk of obesity but paradoxically protects against diabetes. They further showed that this genetic variant influences the differentiation of cells into adipocytes as well as the ability of these cells to store and metabolize fat. These data, in combination with evidence of genetic selection, suggest that this CREBRF variant represents a “thrifty-variant.”


Feriod CN, Nguyen L, Jurczak MJ, Kruglov EA, Nathanson MH, Shulman GI, Bennett AM, Ehrlich BE. Inositol 1,4,5-trisphosphate receptor type II (InsP3R-II) is reduced in obese mice, but metabolic homeostasis is preserved in mice lacking InsP3R-II. Am J Physiol Endocrinol Metab. 2014 Dec 1;307(12):E1057-64.


Krishna KB, Stefanovic-Racic M, Dedoussis N, Sipula I, O'Doherty RM. Similar degrees of obesity induced by diet or aging cause strikingly different immunologic and metabolic outcomes. Physiol Rep. 2016 Mar;4(6).


Schoedel KE, Wolfe J, Hodak SP, Lebeau SO, Yip L, Carty SE, Nikiforova MN, Nikiforov YE, Ohori NP. Significance of what is not sampled: Characteristics of thyroid nonmicrocarcinomas (>1.0 cm) that were not targeted. Cancer Cytopathol. Cancer Cytopathol. 2015 Nov;123(11):678-83.


Siminerio L. Meeting the challenges of hypoglycemia in the community. Diabetic Hypoglycemia. 2014;6; (3)3-7.


The University of Pittsburgh Division of Gastroenterology, Hepatology and Nutrition enjoyed a very good year in Fiscal Year 2016. Strategic goals were defined and implemented to provide for the Division's continued growth and success, even in the face of the significant economic and insurance-related changes in FY16 healthcare practices.

RESEARCH

The Division is uniquely structured as a translational research organization to address complex digestive diseases. Thematic areas include inflammatory bowel disease (IBD), pancreatic diseases, hepatitis and liver diseases, functional and pain disorders, nutrition deficits, digestive system cancer risk, endoscopic management of GI cancers, and women's digestive health. Core scientific disciplines include epidemiology, cell biology and physiology, genetics, immunology, neurosciences, tissue regeneration, transplantation, and oncogenesis. Applied sciences include biomarker development and clinical trial outcome studies.

Institutional directives, combined with independent funding thresholds necessitated a major reduction in research faculty over the past three years, followed by an expected decline in total funding. The Division continued to consolidate redundant laboratories and to streamline research processes in FY16. Efforts to consolidate the IRB protocols and develop integrated information management processes continued.

One of the Division's primary research initiatives in FY16 was the formal implementation of the Genomic Resources to Enhance Available Therapies (GREAT) Study, led by Dr. David C. Whitcomb. Recognizing that most disease complications—and their solutions—are complex, the GREAT Study examines the interactions of a patient's genes with the environment to determine who develops what disease and how each patient experiences that disease. The goal is to unite the study of genes and the environment to predict outcomes.

New Research Initiatives, Continuing and Planned Collaborations

Additional new major research projects secured in FY16 include:

- Dr. David Levinthal secured funding with a consortium of multiple sclerosis centers to study anorectal dysfunction in this population.
- Dr. Georgios I. Papachristou was funded under a UO1 for a multicenter study evaluating stents vs. indomethacin for prevention of post-ERCP pancreatitis.
- Dr. Robert E. Schoen was funded under a UO1, in collaboration with Johns Hopkins, for a study of circulating tumor DNA in early detection and monitoring of colorectal cancer.
• Dr. Schoen was also funded under a UO1 in collaboration with Massachusetts General Hospital for a study of molecular risk stratification for colonoscopic surveillance.
• Dr. Whitcomb was funded under a UO1 for a consortium study of pancreatitis.
• Dr. Whitcomb was also funded under a UO1 for a study of biomarkers for early diagnosis and risk prediction of pancreatic neoplasms.
• Dr. Obaid S. Shaikh was funded under a UO1 for a network study of hepatitis B.
• Dr. Rhonda Metter Brand was funded by Ambry Genetics to study testing for hereditary pancreatic cancer.
• Dr. Jason M. Swoger was funded by AbbVie for a study about the prevention of post-operative Crohn's disease.
• Dr. Jaideep Behari was funded by General Electric for a study of non-invasive methods for assessment of fibrosis.
• Dr. David G. Binion was funded by UCB for study of predicting treatment outcomes in Crohn's disease.
• Dr. Binion was also funded by Cubist to study the natural history of C Diff infection in IBD patients.
Faculty Research Interests

Steven Abo, MD
Dr. Abo is an Assistant Professor whose research interests include clinical research studies pertaining to the pathogenesis and treatment of irritable bowel syndrome. He also serves as the Director for the Center for Women's GI Health.

Jana Al Hashash, MD MSc
Dr. Al Hashash is an Assistant Professor who researches aberrant MUC1 expression in patients with Crohn's disease. She works in conjunction with Dr. Olivera Finn, PhD, in the Department of Immunology. Together, they plan to conduct a vaccine trial by giving MUC1 vaccine to Crohn's disease patients in the postoperative setting to prevent a recurrence of the disease. In addition, Dr. Al Hashash is studying the early detection of colonic dysplasia and colon cancer in high-risk IBD patients via noninvasive biomarkers. She collaborates with Dr. Yang Liu, PhD, on this work.

Kathryn Albers, PhD
Dr. Albers is a Professor of Neurobiology and Medicine who is researching tissue-derived neurotrophic growth factors that regulate sensory neuron development, their functional properties, and changes in neural excitability that occur following nerve injury and disease. Dr. Albers also studies the function of the transcription factor Sox11, which plays a critical role in embryonic neuron specification, growth and survival, and adult peripheral nerve regeneration.

George Arnold, MD
Dr. Arnold is a Clinical Professor of Medicine. He has previously been involved in clinical research in inflammatory bowel disease and irritable bowel syndrome, including supervising studies, presenting at national meetings, and publishing clinical studies.

Arthur Barrie, MD PhD
Dr. Barrie is an Assistant Professor who researches patient outcomes and treatment optimizations for people with irritable bowel syndrome.

Jaideep Behari, MD PhD
Dr. Behari is an Associate Professor who investigates the role of intracellular signaling pathways in the pathogenesis of liver diseases. He is also interested in nonalcoholic fatty liver disease, alcoholic fatty liver disease, and hepatocellular carcinoma.

David Binion, MD
Dr. Binion is a Professor of Medicine and inflammatory bowel disease (IBD) investigator whose career has focused on defining the cellular and molecular mechanisms underlying human chronic gut inflammation and translating that knowledge into improved care for patients suffering from Crohn's disease and ulcerative colitis. Current work has centered on Big Data analytics and the development of the UPMC IBD Registry, a prospective, multi-year, longitudinal natural history registry database of more than 3,000 consented IBD patients. Working in collaboration with computer scientists from the University of Pittsburgh School of Information Science, this metadata platform for scientific discovery continuously curates and transforms clinical information from the electronic medical record. There are multiple areas of investigation, including the development of prognostic biomarkers of IBD severity, comparative effectiveness studies in IBD maintenance therapy, and the use of healthcare charge data as a comprehensive phenotype.

Rhonda Brand, PhD
Dr. Brand is an Adjunct Associate Professor of Medicine who is engaged in mucosal research related to dermatology and gastroenterology.
Randall Brand, MD
Dr. Brand is a Professor of Medicine and a physician-scientist with an extensive background in pancreatic diseases, focused primarily on the early diagnosis of pancreatic cancer and cystic lesions. Other research interests include familial pancreatic cancer and other hereditary GI disorders. Dr. Brand leads the University of Pittsburgh's Pancreatic Adenocarcinoma Gene-Environment Registry (PAGER) study, which has developed a nationally recognized biospecimen repository that serves as an excellent resource for multiple NIH/NCI funded projects as well as national and international collaborations. He is also a key contributor to the Early Detection Research Network, and is a network-funded principal investigator leading both a multi-center Pancreatic Cancer Clinical Validation Center and a Biomarker Developmental Laboratory.

Jennifer Chennat, MD
Dr. Chennat is an Associate Professor of Medicine whose research investigates Barrett's esophagus neoplasia, endotherapies for pancreatitis, novel imaging techniques including confocal endomicroscopy, and endoscopic devices and product designs related to guided visualization and targeted tissue ablation. Dr. Chennat's clinical focus is patients who require advanced endoscopic evaluation for disorders such as complex pancreatitis, Barrett's esophagus, and gastrointestinal lumen and pancreato-biliary cancer staging.

Kapil Chopra, MD
Dr. Chopra is a Professor of Medicine researches the cholestatic liver diseases, primary sclerosing cholangitis and primary biliary cirrhosis. He has participated in collaborative research projects with the Starzl Transplant Institute and the Liver Cancer Center, and has served as co-investigator on a number of multicenter trials investigating novel therapies and the management of viral hepatitis. His research has culminated in 50 scientific presentations at national and international conferences as well as 26 publications in peer-reviewed journals.

Brian M. Davis, PhD
Dr. Davis is a Professor of Neurobiology and Medicine whose research focuses on the role of growth factor interaction with sensory fibers that may regulate neurogenic inflammation in pancreatic disease. He also investigates the role of the peripheral nervous system in pancreatic cancer pain and metastasis.

Richard H. Duerr, MD
Dr. Duerr holds the Inflammatory Bowel Disease Genetic Research Chair and is Professor of Medicine, Human Genetics, and Clinical and Translational Science at the University of Pittsburgh. He is the Co-Director and Scientific Director of the University of Pittsburgh Medical Center Inflammatory Bowel Disease Center.

Dr. Duerr has been involved in research related to inflammatory bowel disease throughout his career. He leads one of six genetic research centers that comprise the NIH/NIDDK Inflammatory Bowel Disease Genetics Consortium. His research program has had uninterrupted funding from the NIH, the Crohn's & Colitis Foundation of America (CCFA), and other foundations since 1995. He was recently appointed Associate Chief Scientist, Translational Research on the leadership team of the Crohn’s & Colitis Foundation of America’s IBD Plexus project. The research and information exchange platform will create a partnership among academic and industry researchers, IBD patients, and clinicians as they work to accelerate the science of IBD.

Michael Dunn, MD FACP
Dr. Dunn is a Professor of Medicine. In collaboration with colleagues of the Thomas E. Starzl Transplantation Institute and the School of Health and Rehabilitation Sciences, he leads a UPMC hospital-funded initiative to improve the fitness and activity of liver transplant candidates. The project's objective is to produce a 20% decrease in waitlist hospital days and waitlist mortality.

Dr. Dunn formed and leads the FLEXIT (Fitness, Life Enhancement and Exercise in Transplantation) Consortium of investigators at the University of California San Francisco, Mayo Clinic Arizona, Cleveland Clinic, Duke University, University of Alberta, and University of Pittsburgh. The multi-center collaborations to define, prevent, and reverse the physical decline experienced by patients with cirrhosis. (IS THIS CORRECT?)
Dr. Dunn helped Dr. David Binion design and continue to assist operating a Department of Defense supported searchable prospective electronic clinical registry. It has enabled significant advances in disease modeling with over 20 major publications in the last 3 years.

He also serves as the site Principal Investigator of an industry-sponsored FDA registration trial of obeticholic acid therapy for primary sclerosing cholangitis.

**Patricia Eagon, PhD**
Dr. Eagon is an Associate Professor of Medicine whose research interests include the role of sex hormones in mediating the effects of alcohol on liver injury and sex hormone-responsive liver parameters. In addition, Dr. Eagon conducts research involving environmental pollutants and chemicals as hormone disruptors and the hormonal activity of medicinal botanicals.

**Kenneth Fasanella, MD**
Dr. Fasanella is an Assistant Professor whose research focuses include surveillance and risk stratification of pancreatic cystic lesions; biomarkers of risk in Barrett's esophagus; outcomes of endoscopic treatment of high-risk Barrett's esophagus and Barrett's-related neoplasia; appropriate surveillance intervals of gastric stromal tumors; and educational research in endoscopic feedback tools.

**Alison Faust, MD MHS**
Dr. Faust is an Assistant Professor of Medicine whose research involves viral hepatitis, non-alcoholic fatty liver disease, and alcoholic liver disease.

**Fadi Francis, MD**
Dr. Francis is an Assistant Professor of Medicine whose research focuses on Hepatitis C treatment and pre- and post-liver transplantation.

**Swaytha Ganesh, MD**
Dr. Ganesh is an Assistant Professor whose research interests include living donor liver transplants and drug metabolism in patients post-living donor transplant. In addition, Dr. Ganesh conducts research on the safety and preliminary efficacy of donor-derived regulatory dendritic cell infusion and immunosuppression withdrawal in living donor transplant recipients, and Remodulin and ischemic reperfusion injury in patients post-liver transplant.

**Michael Gold, PhD**
Dr. Gold is a Professor of Anesthesiology whose research focuses on the clinical features of several pain syndromes. Among the observations that have led to several studies in his lab are that many pain syndromes are unique to a particular part of the body, such as the head in migraine, the temporomandibular joint in temporomandibular disorder (TMD), or the colon in inflammatory bowel disease (IBD). In addition, many pain syndromes, such as migraine, TMD, and IBD occur with a greater prevalence, severity, and duration in women than in men. Also, numerous pain syndromes are associated with changes in the excitability of primary afferent neurons. Dr. Gold is conducting studies to identify novel targets for the development of therapeutic interventions to treat pain.

**Julia Greer, MD MPH**
Dr. Greer is an Assistant Professor whose research focuses on cancer epidemiology related to colon and pancreatic cancer, acute and chronic pancreatitis, nutrition, inflammatory bowel disease risk factors and case management, bioinformatics, and medical education in digestion and nutrition.
Janet Harrison, MD
Dr. Harrison is an Assistant Professor whose research interests include inflammatory bowel disease and women's health.

Charles Horn, PhD
An Associate Professor of Medicine, Dr. Horn's primary research focus is the neurobiology of vagus nerve signaling in health and disease and, more generally, the role of gut-brain communication in homeostasis. Numerous medical treatments and diseases affect gut-brain interactions to elicit nausea and emesis, reduced food intake, inflammatory responses, and modulation of pain, including cytotoxic chemotherapy agents. This line of research has the long-term goal of developing treatments to decrease symptom burden and improve quality of life for patients.

Naudia Jonassaint, MD MHS
Dr. Jonassaint is an Assistant Professor of Medicine whose research interest is focused on exploration of specific biologic markers involved in the development and progression of liver disease in both the pre- and post- transplant populations, with a focus on disparities in liver transplant outcomes. This research program also explores why some patients experience rapid fibrosis progression or accelerated graft loss post transplant.

Asif Khalid, MD
An Associate Professor, Dr. Khalid's research involves pancreatic tumors and cysts, EUS, ERCP, pancreatitis, molecular diagnoses, and early cancer detection.

David Levinthal, MD PhD
An Assistant Professor of Medicine, Dr. Levinthal's lab uses both neuroanatomical tracing and neurophysiological techniques to explore the neural basis for central nervous system influences over autonomic regulation in both health and disease. The research focuses on the neural mechanisms by which the cerebral cortex influences GI tract function. Our initial studies have uncovered the surprising finding that a visceromotor map of sympathetic function is embedded within the classic somatotopic map of motor function. Further work is aimed at understanding the cortical regions that influence vagal function. The goal of this effort is to use the maps to guide brain stimulation in order to influence GI tract function. This line of work will ultimately lead to the development of brain-based therapies for those with forms of severe GI dysfunction resistant to standard treatments.

Yang Liu, PhD
The laboratory of Dr. Yang Liu, an Associate Professor of Bioengineering, focuses on developing personalized approaches to improve early cancer detection. Current clinical practice relies on a one-shoe-fits-all-approach, which screens the entire at-risk population to identify a small percentage of truly high-risk patients, as with colonoscopy and mammography. Frequent, invasive surveillance of patients at risk for developing cancer carries financial, physical, and emotional burdens and can do more harm than good to the patients.

Given that nuclear architecture is one of the hallmarks in cancer diagnostics, our premise is based on nanoscale nuclear architecture mapping to identify earlier and more accurate markers—and to understand the characteristic alteration of nanoscale (i.e., less than 100 nm) nuclear architecture in cancer initiation and progression. Current tools to visualize nuclear architecture are mostly limited to microscale.

Our multi-disciplinary team integrates optics, physics, engineering, bioinformatics, chemistry, biology and clinical medicine, and develops imaging technologies to address this highly unmet clinical need. Among our current projects are the development of clinically applicable imaging technology for high-throughput nanoscale nuclear architecture mapping (nanoNAM) of clinical samples to predict early-cancer progression in inflammatory bowel disease, Barrett's esophagus, and breast pre-cancerous lesions prior to the detection of clinically significant lesions. We are also developing high-throughput super-resolution fluorescence nanoscopy (STORM, PALM) for nanoscale imaging of chromatin organization and epigenetics in cancer initiation and progression. Finally, we are working to develop 3D super-resolution fluorescence nanoscopy for imaging thick tissue.
Shahid Malik, MD
Dr. Malik is a Clinical Assistant Professor of Medicine whose research focuses on outcomes in patients with end-stage liver disease/cirrhosis and post-liver transplant.

James McGee, MD
An Associate Professor, Dr. McGee's research involves studying the effectiveness of technology-based education with a focus on simulation and web-based learning. This research applies virtual patient simulation, technical standards, and education analytics (big data) to improve clinical decision-making and educational outcomes.

Ian McGowan, MD PhD FRCP
Dr. McGowan is a Professor of Medicine whose research focuses on the mucosal pathogenesis of HIV infection and the development of topical products or microbicides to prevent the acquisition of HIV infection associated with vaginal or rectal sex. Dr. McGowan's lab has developed techniques to screen for microbicide-induced mucosal toxicity including multi-color flow cytometry, real time RT-PCR, and gene array studies, which are techniques now being used by others to explore the pathogenesis of gastrointestinal (GI) disorders, including inflammatory bowel disease. This research program's goal is to provide a translational toolbox to address multiple questions focused on the mucosal pathogenesis of GI diseases.

Kevin McGrath, MD
A Professor of Medicine, Dr. McGrath researches the use of endotherapy for the management of Barrett's esophagus and superficial esophageal cancer, the evaluation of pancreatic cystic lesions and cyst aspirate analysis, and EUS-guided tissue acquisition.

Satdarshan (Paul) Monga, MD
A Professor of Pathology and Medicine, Dr. Monga's laboratory is focused on understanding the molecular mechanisms of liver growth and development in health and disease. In particular, his team is trying to address the molecular basis of liver development, growth, regeneration and cancer. Several signaling pathways have been identified to direct such events, including the Wnt/β-catenin, HGF/Met, PDGFR, and others.

Another significant focus in Dr. Monga's laboratory is targeting the HCC pathway and others, which are normally upregulated during liver development at the time of peak proliferation and stem cell renewal, as a novel therapeutic measure. In addition, various animal models have been generated in the lab, which conditionally overexpress or show a lack of expression of important genes such as β-catenin and others. These are being studied for the role of canonical Wnt signaling in additional liver diseases, including alcoholic liver disease, nonalcoholic fatty liver disease, glucose metabolism, and others.

Stephen O'Keefe, MD MSc
A Professor of Medicine, Dr. O'Keefe's studies the physiological and pathophysiological nutritional responses to dietary intake and interventional feeding. These efforts focus on the relationship between diet, the colonic microbiota, and colon cancer risk, particularly among African vs. African American populations.

Georgios Papachristou, MD PhD
Dr. Papachristou, an Associate Professor, oversees a number of institutional studies and multi-center collaborations. He directs a translational research laboratory focusing on the genetic basis, immunology, and immune therapy of acute pancreatitis. He currently receives research funding from the National Institutes of Health, the Veterans Affairs Health System, and the American College of Gastroenterology. Dr. Papachristou has authored over 100 peer-reviewed articles and book chapters.
Mordechai Rabinovitz, MD
Dr. Rabinovitz is a Professor of Medicine whose research involves assessment and treatment of chronic viral hepatitis, focusing on combination therapy for chronic hepatitis C patients. Additional research efforts focus on developing new therapies for nonalcoholic fatty liver disease, biological agents for patients with low platelet count undergoing invasive procedures, and new therapies for patients with hepatic encephalopathy.

Vikrant Rachakonda, MD
An Assistant Professor, Dr. Rachakonda's research is focused on malnutrition and dysregulation of lipid metabolism in chronic liver disease and the role of muscarinic receptors in the regulation of acute and chronic liver injury.

Miguel Regueiro, MD
Dr. Regueiro is a Professor of Medicine who researches inflammatory bowel disease (IBD). Specifically, he studies the natural course of postoperative Crohn's disease, medications to prevent Crohn's disease recurrence, novel IBD medications, and phenotypes that correlate with genotypes for IBD. He has also recently become interested in patient-centered care and outcomes with the creation of the specialty medical home. This novel approach to IBD population-based health has led to research with the Health Plan (insurance company) on quality of life, clinical outcomes, and reduction in unplanned care.

Shari Rogal, MD MPH
Dr. Rogal is the John J. Fung Assistant Professor of Transplant Surgery, and her research interests include transplant outcomes, addiction and pain in chronic liver disease, implementation science, and health disparities.

Savreet Sarkaria, MD
A Clinical Assistant Professor of Medicine, Dr. Sarkaria researches screening, early detection, and endoscopic therapies for gastrointestinal cancers, including pancreas, bile ducts, gallbladder, esophagus, stomach, and colon, as well as benign pancreaticobiliary diseases and pancreatic cysts.

Robert Schoen, MD, MPH
Dr. Schoen is a Professor of Medicine and Epidemiology whose research interests focus on the early detection and prevention of colorectal cancer (CRC). He is a principal investigator in the PLCO cancer screening trial, a randomized trial of over 154,000 individuals that evaluated flexible sigmoidoscopy. He has used PLCO data to study surveillance colonoscopy utilization and yield, interval cancer (cancers detected shortly after endoscopic procedures), and the risk of colorectal cancer among subjects with a family history of cancer. Dr. Schoen is the principal investigator, in collaboration with the Mayo Clinic in Minnesota, of a multicenter randomized immunotherapy trial, evaluating a vaccine for prevention of recurrent adenomatous polyps. He is also the principal investigator for the Early Detection Research Network and collaborates with scientists nationally and internationally to identify biomarkers, including circulating tumor DNA and tissue-based markers, to detect and monitor cancer. He is an investigator in the Genetics and Epidemiology of Colorectal Cancer Consortium (GECCO), which is studying genetic and environmental risk factors for CRC, including genome wide association studies and molecular pathologic epidemiology research and modeling of CRC risk using genetic and environmental risk factors. Dr. Schoen is a co-investigator in a study evaluating colonoscopy quality and is helping to develop a natural language processing tool to evaluate and report on colonoscopy quality in a more efficient manner. In conjunction with that project, he is developing a database of colonoscopy reports from the last 20 years at UPMC hospitals, for research studies on colonoscopy.

Marc Schwartz, MD
An Assistant Professor of Medicine, Dr. Schwartz's research involves cost and utilization of IBD care as well as colon cancer in IBD patients.
Obaid Shaikh, MD FRCP
Dr. Shaikh is a Professor of Medicine whose research interests include the progression of end-stage liver disease, the treatment of hepatocellular carcinoma, hepatocarcinogenesis and genomic profiling of liver tumors, and allocation models for liver transplantation.

Adam Slivka, MD PhD
A Professor of Medicine, Dr. Slivka's research focuses on the non-invasive diagnosis of pancreaticobiliary cancer, the development and testing of new drugs and devices used during ERCP, and the development of new strategies to treat pancreatitis and pancreatic cancer.

Jason Swoger, MD MPH
Dr. Swoger is an Assistant Professor of Medicine who also serves as the Director of the Inflammatory Bowel Disease Clinical Trials Unit as well as the primary investigator for all industry-sponsored clinical trials investigating new medications and treatment modalities for Crohn’s disease and ulcerative colitis. Dr. Swoger is operating clinical trials in both the inpatient and outpatient settings. His research interests also include the treatment of post-operative Crohn’s disease, skin diseases in IBD, and the optimal use of immunomodulator and biologic medications to maximize the durability of treatment.

Eva Szigethy, MD PhD
An Associate Professor of Medicine, Dr. Szigethy researches the use of cognitive behavioral therapy to improve health care delivery for adult and pediatric GI patients, including the use of psychotherapy, hypnosis, and pharmacotherapy. Other areas of interest include advanced programming for IBD patients and patients experiencing chronic pain; as well as narcotic bowel syndrome and the mechanisms underlying this type of central hyperalgesia; and treatments to manage pain and opioid detoxification.

David Whitcomb, MD PhD
Dr. Whitcomb is a Professor of Medicine whose research focuses on pancreatic disease and the modeling of complex, multistep gene-environment interactive disorders requiring a precision medicine approach. Dr. Whitcomb’s multicenter, genotype-phenotyping hereditary pancreatitis, and the North American Pancreatitis Study II (NAPS2) programs, plus acute pancreatitis and pancreatic cancer studies using reverse engineering and predictive modeling approaches serve as a foundation and pathway for diseases in multiple organ systems. He leads the Genomic Resource to Enhance Available Therapy (GREAT) study, to initiate the delivery of precision medicine for complex chronic disorders and their complications. Dr. Whitcomb also studies the pathophysiology of severe acute pancreatitis and pain genetics.

Dhiraj Yadav, MD MPH
A Professor of Medicine, Dr. Yadav studies the epidemiology of pancreatic diseases. He has used local, state, and national level data as well as collaborative studies to define various aspects of the epidemiology of acute and chronic pancreatitis. His major contributions to the scientific literature include the role of alcohol and tobacco in pancreatitis; the incidence, prevalence and hospitalizations from chronic pancreatitis; the risk and burden of readmissions after acute pancreatitis; and the natural history of acute pancreatitis. Data generated from his studies are often used by national agencies, such as the National Institutes of Health to set research priorities. Dr. Yadav is a member of the NIDDK-funded North American Pancreatitis Study (NAPS) consortium, which has prospectively ascertained the largest prospective cohort of patients with recurrent acute and chronic pancreatitis in the United States to conduct collaborative studies. He is the Co-PI for the Pittsburgh Clinical Center, which is part of the consortium to study Chronic Pancreatitis, Diabetes and Pancreatic Cancer (CPDPC), established by the NIDDK and NCI. He is also co-chair of the consortium’s adult chronic pancreatitis working group. Dr. Yadav is frequently invited to national and international conferences and seminars to discuss his research. He has also been involved in the development of consensus and practice guidelines for the American Pancreatic Association and PancreasFest on chronic pancreatitis, total pancreatectomy, and islet autotransplantation in chronic pancreatitis; and the detection, evaluation, and treatment of diabetes mellitus in chronic pancreatitis.
Faculty Research and Other Scholarly Activities

**Steven Abo MD**
- Director, Center for Women’s Digestive Health (Magee), 2000-present

**Kathryn Albers PhD (adjunct)**
- Editorial Board for *Drug Discovery Today: Disease Models;* Advisory Committee for COBRE grant at University of Pittsburgh, 2003-present
- Advisory Committee for COBRE grant, University of Nebraska, 2003-present
- Organizer, Research Conference Series, Division of Gastroenterology, Hepatology and Nutrition, University of Pittsburgh, 2002-present
- Research Training Executive Committee–GI Training Grant, University of Pittsburgh, 2003-present
- Division of Gastroenterology, Hepatology and Nutrition Tenure and Promotion Advisory Committee, University of Pittsburgh, 2004-present
- Panelist, Strategies for Effective Animal Use, Department of Medicine, UPMC, 2008-present
- Invited Speaker, Pain Mechanisms and Therapeutics Conference, Taormina, Sicily, 2016
- Undergraduate research project advisor; Sinmisola Opeyemi, 2013-2016
- Graduate student committees; Stephanie Aldrich, CNUP, Comprehensive committee, January 2016
- Dissertation advisor; Sarah Najjar, Center for Neuroscience University of Pittsburgh, April 2015-present
- Postdoc/Fellow Mentoring Team, 2015-present
- Visiting Scientist Mentor, 2015-present
- Postdoctoral Research Advisor Committees, 2014-present
- Junior faculty mentor program, 2010-present
- Member ASCB Congressional Liaison Committee, 1999-present
- Committee on Education and Training, Division of Gastroenterology, Hepatology and Nutrition, Department of Medicine, 2001-present
- Division of GI, PancreasFest Planning Committee, Speaker and Panel member, 2010-present
- Research Executive Committee, Division of Gastroenterology, Department of Medicine, 2010-present
- Panel organizer, PancreasFest 2016. Department of Medicine, Division of Gastroenterology, 2016

**Jana Al Hashash MD**
- Faculty Lecturer, Gastroenterology State of the Art Lecture Series on Diarrhea and Malabsorption, 2013-present
- Peer Reviewer, *Inflammatory Bowel Disease Journal*, 2012-present
- Peer Reviewer, *Clinical Gastroenterology and Hepatology*, 2012-present
- Peer Reviewer, *Alimentary Pharmacology and Therapeutics*, 2012-present
- Peer Reviewer, *Cleveland Clinic Journal of Medicine*, 2012-present
- Peer Reviewer, *ACG Case Report Journal*, 2013-present
- Member of the Crohn's and Colitis Foundation of America (CCFA); 2012-present
- Member of the American Gastroenterological Association (AGA); 2011-present
- Member of the American College of Gastroenterology (ACG); 2011-present
- Member of the American Society for Gastrointestinal Endoscopy (ASGE); 2010-present
- Associate Faculty Member in ‘Faculty of 1000’; 2010-present

**George L. Arnold MD**
- Member, American Gastroenterology Association, 1979-present
- Fellow, American College of Physicians, 1980s-present
- Clinical Professor of Medicine, University of Pittsburgh Medical School, 2002-present
Leonard Baidoo MD (resigned FY16)
- Medical Director, Center For Infusion, Magee Women's Hospital, 2006-present
- Chairman, Medical Advisory Committee, Crohn's and Colitis Foundation of America, 2008-present
- Advisor/Mentor, Premedical Organization for Minority Students, 2012-present
- R.I.S.E. (Mentorship Program), 2007-present

Arthur M Barrie III MD PhD
- Physician Member, Crohn's & Colitis Foundation of America (CCFA), 2009-present
- University of Pittsburgh Clinical Research Scholars Program, 2010-present
- University of Pittsburgh School of Medicine MS2 Integrated Case Studies Course small group moderator, 2016
- University of Pittsburgh School of Medicine MS1 Immunology Course lecturer, “The gut mucosal immune system in health and disease”, 2011-2016
- Univ. of Pittsburgh School of Medicine MS2 Digestion and Nutrition Course lecturer, “Gut Mucosal Immunology, 11/15, and workshop facilitator, 2009-2016

Jaideep Behari MD PhD
- Co-Director, Liver Translational Research, Liver Pancreas Institute, 2010-present
- Co-Director, Division of Gastroenterology, Hepatology, and Nutrition, Continuing Medical Education Course, 2013-present
- Member, Protocol Review Committee-Data Safety Monitoring Board, UPMC Starzl Transplant Institute, 2014-present
- Assigned faculty mentor for GI Fellow (Siobhan Proksell, MD), Division of Gastroenterology, Hepatology, and Nutrition, 2015-2016
- Undergraduate training: Eileen Burke, Undergraduate Student, University of Pittsburgh, 2014-present
- The UPMC Fatty Liver Clinic at the Digestive Disorders Center was established to provide innovative cutting edge and integrated care to patients with nonalcoholic fatty liver disease and overlapping metabolic disorders such as diabetes and obesity. Currently there are 3 active clinical trials offered by the Fatty Liver Clinic with 3 additional studies pending approval September 2015-present

Klaus Bielefeldt MD PhD (resigned FY16)
- Director, Clinical Neurogastroenterology Laboratory, Presbyterian University Hospital, 2005-present
- Associate Program Director, Gastroenterology Fellowship Program, 2008-present
- Lecturer, Continuing Medical Education Course, 2014-present
- Editorial board, Digestive Diseases and Sciences, 2013-present
- Award, Excellence in Reviewing, Journal of Pain, 2014
- Lecturer, M2 Course: Physiology of the Gastrointestinal Tract (3 lectures), 2014-2015

David Binion MD
- Co-Director, Inflammatory Bowel Disease Center, University of Pittsburgh, 2008-present
- Director, Translational Inflammatory Bowel Disease Research, University of Pittsburgh, 2008-present
- Visiting Professor, Clinical and Translational Science, 2012-present
- Director, Nutrition Support Service, 2013-present
- Professor of Medicine, Clinical and Translational, 2014-present
- Castle Connolly Top Doctor in Gastroenterology, 2014-2016
• Gastroenterology Fellow, UPMC Project title: Obesity and inflammatory bowel disease, 2011-present
• Teaching activity: Claudia Ramos Rivers, M.D. Research Associate, University of Pittsburgh School of Medicine Project title: Telephone activity in the care of inflammatory bowel disease, 2011- present
• Mentor for Anwar Dudekula, M.D. Instructor, University of Pittsburgh School of Medicine Master’s Degree Candidate, Institute for Clinical Research and Education, Clinical Translational Science Institute, University of Pittsburgh Project title: Patterns of admission and readmission in inflammatory bowel disease. Currently, Hospitalist, Medicine Service A, UPMC Presbyterian-Shadyside Hospital, Pittsburgh, PA, 2010- present
• Mentor Mahesh Gajendran, M.B.B.S. University of Pittsburgh School of Medicine Master’s Degree Candidate, Institute for Clinical Research and Education, Clinical Translational Science Institute, University of Pittsburgh Project title: Effect of surgical anastomosis on quality of life, intestinal function and healthcare utilization in Crohn’s disease. Currently, Hospitalist, UPMC Presbyterian-Shadyside Hospital, Pittsburgh, PA, 2011- present
• Chandra Umapathy, M.B.B.S.Instructor, University of Pittsburgh School of Medicine Masters Degree Candidate, Institute for Clinical Research and Education, Clinical Translational Science Institute, University of Pittsburgh Project title: Colesevelam and bile acid sequestrant therapy in Crohn's disease. Currently, Hospitalist, Medicine Service A, UPMC Presbyterian-Shadyside Hospitals, Pittsburgh, PA, 2012- present
• Hassan Siddiki, M.B.B.S.Instructor, University of Pittsburgh School of Medicine Project title: Morphometric analysis of anastomotic bowel diameter and quality of life in Crohn’s disease. Currently, Hospitalist, UPMC Shadyside Hospital, Pittsburgh, PA, 2012-present
• Trainees: Benjamin H. Click, MD, North American Conference of Gastroenterology Fellows Plenary Oral presentation, American College of Gastroenterology, awarded as one of the top three presentations, 2015-2016
• Editorial Advisory Board, The American Journal of Gastroenterology, 2007-present
• Editorial Advisory Board, World Journal of Gastroenterology, 2007-present
• Editorial Advisory Board, Clinical and Translational Science, 2008-present
• Executive Board, Crohn’s and Colitis Foundation of American (CCFA), 1999-present
• Medical Director, GI and Nutrition Therapy (GIANT), 2013-present
• Nutrition Subcommittee, UPMC Presbyterian-Shadyside Hospitals, 2013-present
• Editorial Advisory Board, Clinical Gastroenterology and Hepatology, 2014- present
• Steering Committee, (SECURE) FDA Mandated Safety Registry UCB Pharma, Inc. Committee Member 2009-2019
• Certificate of Completion, University of Pittsburgh School of Medicine, Department of Biomedical Informatics, “Big Data and Healthcare Analytics: --A Path to Personalized Medicine.” Selected to participate in this inaugural course from the University of Pittsburgh Department of Biomedical Informatics, March-May 2016

Randall Brand MD
• American Gastroenterological Association Fellowship, 2007-present
• Member, Collaborative Alliance for Pancreatic Education and Research (CAPER), 2009-present
• Nature Clinical Practice Gastroenterology and Hepatology Advisory Board, 2006-present
• Member of Pancreatic Cancer Clinical Pathways Committee, University of Pittsburgh Medical Center, 2008-present
• Director, GI Section and Academic Director, Shadyside Hospital, Pittsburgh, PA, 2007-present
• Director, GI Malignancy Early Detection, Diagnosis and Prevention Program, UPMC, 2007-present
• Editorial Board, Case Reports in Gastroenterology, 2011-present
• Editorial Board, Nature Clinical Practice Gastroenterology & Hepatology, 2006-present
• Editorial Board, Annals of Gastroenterology and Hepatology, 2010-present
• Member of Advisory Board, Collaborative Alliance for Pancreatic Education and Research (CAPER), 2012-present
• Member of Advisory Committee, Pancreas Section Council, American Gastroenterology Association, 2013-present
• Director, GI State of the Art Lecture Series, 2013-present
• Ad hoc reviewer, Clinical Colorectal Cancer, 2011-present
• Ad hoc reviewer, Familial Cancer, 2010-present
• Ad hoc reviewer, Gut, 2007-present
• Ad hoc reviewer, Cancer Epidemiology, Biomarkers & Prevention, 2002-present
• Ad hoc reviewer, Pancreas, 2001-present
• Ad hoc reviewer, American Journal of Human Genetics, 2001-present
• Ad hoc reviewer, Clinical Cancer Research, 2000-present
• GI fellowship committee, University of Pittsburgh, 2007-present
• Health Sciences Bridge Funding Committee, 2010-present
• Member of Advisory Board, Collaborative Alliance for Pancreatic Education and Research, 2012-present
• Pancreatic Cancer Clinical Pathways Committee, University of Pittsburgh Medical Center, 2008-present
• Appointed to the NCI Pancreas Task Force, 2016-present
• Named to the Best Doctor in Pittsburgh, 2016-present

Jennifer Chennat MD
• American Medical Association (AMA), 2001-present
• American College of Physicians (ACP), 2001-present
• Editorial Board, Society for Gastrointestinal Intervention (SGI) Journal, 2012-present
• Editorial Board, Gastrointestinal Endoscopy Journal, 2014-present
• Director, Interventional Endoscopy Fellowship Training Program, 2013-present
• Teaching Faculty for Active Endoscopy at Presbyterian Hospital for GI fellows and Interventional 4th year fellow, 2013-present
• Chief of Therapeutic Endoscopy, Division of Gastroenterology & Hepatology, University of Pittsburgh Medical Center, Pittsburgh, PA, 2011-present
• Teaching faculty, Medical Student Courses, 2013-present
• Teaching faculty, GI Inpatient Services, 2013-present
• Teaching faculty, GI fellowship State of the Art Lecture Series, 2013-present
• Teaching faculty, ASGE Courses and Digestive Diseases Week Conferences, 2012-present

Kapil Chopra MD
• Medical Director, Comprehensive Liver Program, UPMC Liver and Pancreas Institute, 2014-present
• Program Director, Transplant Hepatology Fellowship Program, 2014-present
• Ad hoc Reviewer, Liver Transplantation, Mayo Clinic Proceedings, Digestive Diseases and Sciences, and American Journal of Gastroenterology, 2007-present
• Member, American Liver Foundation (ALF), Allegheny Division, Chairman, Medical Advisory Committee, 2007-present
• Member, American Liver Foundation (ALF), Allegheny Division, Medical Advisory Committee, 2006-present
• Member, American Liver Foundation (ALF), Allegheny Division, Executive Committee, 2006-present
• American Liver Foundation (ALF), Allegheny Division, Board Member, 2006-present
• Member, PSC Partners Seeking a Cure Medical Advisory Board, 2008-present
• Community Liver Alliance (CLA) - You Make a Difference Award, 2016
• Appointment and Promotion Committee, University of Pittsburgh Department of Medicine, 2012-present
• Board Member, Community Liver Alliance (CLA), 2014-present
• University of Pittsburgh Graduate Medical Education Committee (GMEC), 2007-present
• Member, UPMC Presbyterian/ Shadyside Hospitals Transplant Patient Safety Council, 2010-present
- Member, UPMC Presbyterian/ Shadyside Hospitals Transplant Quality Executive Council, 2010-present
- UPMC Health Plan: Pharmacy and Therapeutics Committee, 2016-present
- Community Liver Alliance (CLA) - You Make a Difference Award, 2016

Brian Davis PhD (adjunct)
- Member, CNUP Graduate Student Evaluation Committee, 2007-present
- Member, University of Pittsburgh Research Council, 2006-present
- Member, Recruitment Committee PCPR, 2006-present
- Grant Reviewer: ad hoc NSF study sections on Behavioral Endocrinology and Developmental Neurobiology, 1983-present
- Editor, Associate Editor, Brain Research, 2007-present
- Co-Director of Graduate Studies for the Center for Neuroscience, University of Pittsburgh, July 2008-present
- Reviewer, Proceedings of the National Academy of Sciences, 2010-present
- Society for Neuroscience, Chapters and Membership Committee, 2008-present
- Society for Neuroscience, Government Policy and Advocacy Committee, 2009-present
- Associate Division Chief for Research, Division of Gastroenterology, Hepatology and Nutrition, 2011- present
- University of Pittsburgh Graduate Council Pittsburgh School of Medicine, 2008- present
- University of Pittsburgh Committee for Tenured Promotions and Appointments, SOM 2012-present
- NIH NDPR ad hoc. 2008-present

Howard Dubner MD
- Clinical Director, UPMC Shadyside GI, 2006-present

Richard Duerr MD
- Chairman, NIDDK IBD Genetics Consortium Genotyping Committee, 2003-present
- Physician member, Crohn’s and Colitis Foundation of America, 2007-present
- Chairman, Institutional Data and Safety Monitoring Board Subcommittee, 2006-present
- Institute for Clinical Research Education, Clinical Research Scholars Multidisciplinary Advisory Committee, 2009-present
- Editor, Genetics Section, Inflammatory Bowel Diseases, 2002-2006, 2008-present
- Member of Mentoring team and PhD Committee for Lucas Santana dos Santos, a Biomedical Informatics PhD student, 2012-present
- Member, Crohn’s & Colitis Foundation of America’s IBD Plexus Integration and Transition Team, 2014-present
- Research Team Member, CCFA IBD Plexus project, 2014-present
- Genetics of Health and Disease NIH Study Section, 2016
- Member, University of Pittsburgh School of Medicine Standing Committee for Tenured Faculty Promotions and Appointments, 2016
- Co-led a multiinstitutional, multidisciplinary project that resulted in several manuscripts, which are in press in Gastroenterology, 2016

Michael Dunn MD
- Policy Co-Chair, Pennsylvania Diabetes Action Plan, 2006-present
- Boards of Directors, Easter Seals of Western Pennsylvania, 2008-present
- Board of Directors, Central Pennsylvania Veterans Community Initiatives, 2005-present
- Board of Directors, Pittsburgh Community Liver Alliance, 2014-present
- Board of Directors, National Flag Foundation, 2012-present
- Associate Chief for Translational Research, Division of Gastroenterology, Hepatology and Nutrition, University of Pittsburgh Medical Center, 2008-present
- Advisory Panel Member, U.S. Army Surgeon General on Military Medicine and Prevention, 2008-present
• Joint Professor of Biomedical Informatics, 2010-presents
• National Medical Society Service Abstract Reviewer for AASLD Annual Meeting and Digestive Diseases Week
• Member, AASLD Federal Agencies Liaison Committee, 2016-present
• Expanded the Fitness, Life Exercise in Transplant (FLEXIT) Consortium to 6 centers, now Pitt, USCF, Mayo Phoenix, Cleveland Clinic, Duke University, and University of Alberta, 2016
• Finalized a 6 center formal Data Use Agreement for the 6 centers, 2016
• Trainee, Dr. Doris Chen, designated an AASLD Emerging Liver Scholar, 2016

Patricia Eagon PhD
• Reviewer, VA Merit Review and STARS Awards (ad hoc), 1984-present
• Reviewer, Gastroenterology, Hepatology, Alcoholism: Clinical and Experimental Research, 1984-present
• Reviewer, Chronobiology International, 1984-present
• Reviewer, Journal of Steroid Biochemistry and Molecular Biology, 1984-present
• Reviewer, European Journal of Clinical Investigation, 1984-present
• Reviewer, Digestive Diseases and Sciences, 1984-present
• Reviewer, Alcohol and Alcoholism, 1984-present
• Reviewer, American Journal of Physiology (GI and Liver), 1984-present
• Reviewer, Alcohol Research and Health, Cancer Letters, 1984-present
• Reviewer, Journal of Pharmacology and Experimental Therapeutics, 1984-present
• Reviewer, Journal of Nutrition, 1984-present
• Reviewer, Life Sciences, 1984-present
• Reviewer, Alcohol, 1984-present
• Reviewer, Journal of Orthopedic Research, 1984-present
• Admissions Committee, School of Medicine, 1988-present
• Member, Dean’s Interview Committee, 2007-present
• Member, Promotions and Retentions Committees, School of Medicine, 1996-present
• Member, Promotions & Tenure Committee, Division of Gastroenterology and Hepatology, 2004-present
• Member, Veterans Affairs Research and Development Committee, 1985-present
• NIH AA-1 Study Section and ZZ-AA1 Study Section, 2005-present
• Ad hoc, VA VISN 4 seed application reviews, July 2007-present
• Member, Admissions Committee, School of Medicine, 1988-present
• Veterans Affairs Institutional Biosafety Committee, 2012-present
• Reviewer, State of Nebraska Research Initiatives grant review panel, 2012-present
• Teach Medical and Graduate student, Second year medical student course, Digestion and Nutrition, 1991-present

Kenneth Fasanella MD
• Program Director, Gastroenterology Fellowship, December 2007-present
• Member, University of Pittsburgh School of Medicine Selection Committee, 2009-present
• Member, University of Pittsburgh Medical Center Department of Medicine Residency Selection Committee, December 2007-present
• Member, Common Fellowship Curriculum Committee, 2007-present
• Member, The North American Pancreas Study Group (NAPS), 2005-present
• Co-director, Endoscopic Ultrasound Program, UPMC Liver Pancreas Institute, 2010-present
• Member, National Pancreas Foundation Education Review Committee, 2003-present
• Course Director–UPMC Gastroenterology Grand Rounds, 2012-present
Fadi Francis MD
- Medical Director Liver Transplantation, VA Pittsburgh Healthcare Systems, 2005-present
- ACG Case Reports Journal Award (Member) and 2016 ACG Presidential Poster Award, 2016

Julia Greer MD MPH
- Editor, Pitt Digest, 2012-present
- Section Editor, IBD Case Series, Inflammatory Bowel Diseases, 2014-present
- Medical Editor, ScienceDocs Inc., www.sciencedocs.com, 2008-present
- Wayne Fusaro Pancreatic Cancer Research Foundation, 2005-present
- Member, Minority Affairs Consortium, 2006-present
- Editorial Board, World Journal of Gastroenterology, 2006-present
- Director, UPSOM 2nd year Digestion and Nutrition medical school course, 2009-present
- Guest lecturer in nutrition, Duquesne and Chatham University’s Schools of Nursing, 2010-present
- Facilitator, UPSOM 1st year medical school Microbiology course, 2011-present
- Facilitator, UPSOM 1st year medical school Methods of Logic in Medicine course, 2011-present
- Guest lecturer in nutrition, University of Pittsburgh Dietetics Department, 2011-present
- Associate editor, Inflammatory Bowel Diseases, 2014-present
- Guest speaker, AHDI, Pennsylvania Chapter, 2009-present
- Guest speaker, Gilda’s Club of Southwestern Pennsylvania, 2008-present
- Guest lecturer, Association of Healthcare Documentation annual meetings, 2009-present
- Member, Complementary Medicine Interest Group, Integrative Medicine Center Pittsburgh, 2007-present
- NBME article reviewer for USMLE, 2012-present

Janet R Harrison MD
- Co-Editor, Pitt Digest, 2008-present
- Teaching, small gap sessions with medical students, 2010-present

Charles Horn PhD
- Member, Biobehavioral Medicine in Oncology Program, University of Pittsburgh Cancer Institute, 2009-present
- Associate Professor, University of Pittsburgh School of Medicine, Department of Medicine (Division of Gastroenterology, Hepatology, and Nutrition), 2009-present
- Associate Professor, University of Pittsburgh School of Medicine, Department of Anesthesiology, 2009-present
- Graduate Training Faculty Member, Center for Neuroscience, University of Pittsburgh, 2009-present
- Member, Medical Advisory Board Primary Core, Cyclic Vomiting Syndrome Association, 2014-present
- Cyclic Vomiting Syndrome Association, USA/Canada, Medical Advisory Board Primary Core Member, 2014-present
- Co-Chair, NIH Stimulating Peripheral Activity to Relieve Conditions (SPARC) program steering committee (NIH Common Fund), 2015-present

Alison Jazwinski-Faust MD MHS
- Alpha Omega Alpha Honor Medical Society, 2005-present
- Publications Committee Member, American Association for the Study of Liver Diseases, 2009-present
- Consultant, Genetics Subcommittee member, Hepatitis B Research Network, 2013-present
- Founding member of social media/technology committee for American Association for the Study of Liver Diseases (AASLD), 2015-present
- Facilitator to Gastroenterology Fellow’s Liver Journal Club, 2015-present

Department of Medicine http://www.dom.pitt.edu/gi
Naudia Jonassaint MD MHS
- Advisory Member, Johns Hopkins Second Decade Society, 2009-present
- Clinical Preceptor, Gastroenterology and Hepatology, McKeeseport Hospital, 2014-present

Asif Khalid MD
- Member, Adverse Events & Procedures Committee at the Oakland Veterans Administration Medical Center, 2004-present
- GI Section Chief, VA Pittsburgh Healthcare System, 2004-present
- Fellow, American College of Gastroenterology and Member, American Society for Gastrointestinal Endoscopy, 2008-present

David Levinthal MD PhD
- Reviewer, Dean’s Summer Research Programs, 2014-present
- Reviewer, Dean’s Summer Research Programs (DRSP) for medical students, UPSOM, 2015-present
- Member, Quality Initiative Steering Committee, Division of Gastroenterology, Hepatology, and Nutrition, 2014-present
- Lecturer and PBL Group Leader, Digestion & Nutrition Course, University of Pittsburgh School of Medicine, 2010-present
- Teaching Faculty, Integrated Case Studies Course, University of Pittsburgh School of Medicine, March 2015-present
- Invited Member, Research Awards Panel, American Gastroenterological Association (AGA) Institute, 2015-2017
- Member, GI Research (non-T32) Steering Committee, GI Division, Department of Medicine, University of Pittsburgh, 2015-present
- Vice Chair, AGA–Rome Foundation Functional GI and Motility Disorders Pilot Research Award Review Committee, 2016-present
- Invited Member, Adult Cyclic Vomiting Syndrome Clinical Guidelines Development Committee; co-sponsored by the Cyclic Vomiting Syndrome Association (CVSA) and the American Neurogastroenterology and Motility Society (ANMS), 2015-present
- Invited Member, American Gastroenterological Association (AGA) Institute Research Awards Panel (RAP), June 2015-present
- Promoted to Director, Neurogastroenterology & Motility Center, Division of GI, UPMC, 2016-present

Yang Liu PhD
- Consultant, NanoVision Diagnostics, 2014-present

Shahid Malik MD
- American Association for Liver Diseases, 2010-present
- Voted top Noon Lecture (Hepatology for Dummies) by Internal Medicine Housestaff, 2016

James B McGee MD
- Assistant Dean for Medical Education Technology, 2004-present
- Director, Laboratory for Educational Technology, University of Pittsburgh School of Medicine, 2001-present
- Member, Council on Academic Computing (University-level committee), 2003-present
- Member, Curriculum Development and New Initiatives Committee, 2004-present
- Member, Academy of Master Educators, University of Pittsburgh School of Medicine, 2007-present
- Chairman, American Association of Medical Colleges, Consortium on Medical Education Technology, 2005-present
- Editorial Board, American Association of Medical Colleges, MedEdPortal, 2006-present

http://www.dom.pitt.edu/gi
Member, LCME Task Force, American Association of Medical Colleges, 2007-present
Editor for Online Education, American Gastroenterological Association, 2007-present
Computer Technology subcommittee, American Gastroenterological Association, 2004-present
Chairman, MedBiquitous, Working Group on Virtual Patients, 2007-present
Executive Committee, MedBiquitous, 2007-present
Reviewer, American Medical Informatics Association, 2005-present
Reviewer, Association of American Medical Colleges, 2005-present
Advisory Board, Health Sciences Online, 2005-present
Reviewer, Medical Teacher (journal), 2006-present
Reviewer, International Journal of Medical Informatics, 2007-present
Emerging Technologies Task Force, American Gastroenterological Association, 2015-present
Lecturer, Digestion and Nutrition (MSY2), University of Pittsburgh School of Medicine, 2014-present
Small Group Facilitator, Digestion and Nutrition (MSY2), University of Pittsburgh School of Medicine, 2014-present
Excellence in Teaching Award, University, University of Pittsburgh Institute for Clinical Research Education, 2016
Course Director, Innovative Teaching Strategies: Distance Learning, Web-Based Teaching and Simulation, Master's in Medical Education Curriculum, University of Pittsburgh, 2014-present
Small Group Facilitator, Integrated Case Studies, University of Pittsburgh School of Medicine, 2014-present

Ian McGowan MD PhD
Reviewer, AIDS, American Journal of Pathology, 2001-present
Reviewer, Science, 2004-present
Reviewer, PloS Medicine, 2006-present
Reviewer, Gastroenterology, 2007-present
Editorial Board, Sexually Transmitted Infection, 2010-present
Chair, Microbicide Advisory Committee, Population Council, New York, NY, 2009-present
Chair, Scientific Advisory Board, Noicol Life Sciences, 2014-present
Member, Antiviral Drugs Advisory Committee, FDA, 2008-present
Member, External Advisory Panel for the Bill and Melinda Gates Foundation Global Health HIV/AIDS portfolio, 2013-present
Fellow, Royal College of Physicians of the U.K., 1999-present
Fellow, Royal Society of Medicine, London, 2001-present
Chair, Microbicide Advisory Committee, Population Council, New York, 2009-present

Kevin McGrath MD
Director, Endoscopic Ultrasound, 2001-present
Director, GI Endoscopy Lab, 2003-present
Co-Director, Barrett's Esophagus Specialty Treatment Clinic, UPMC, 2008-present
GI Consultant, Clinical Faculty for Gastroenterology Fellowship Program, 2002-present
Leader, Gastroenterology Fellows/ Peer Faculty, 2008-present
Course Director, EUS Conference, 2004-present
Ad Hoc Reviewer, Pancreatology, 2006-present
Ad Hoc Reviewer, Endoscopy, 2005-present
Ad Hoc Reviewer, American Journal of Gastroenterology, 1998-present
Ad Hoc Reviewer, Digestive Diseases and Science, 2002-present

http://www.dom.pitt.edu/gi
• Ad Hoc Reviewer, Journal of Clinical Gastroenterology, 2006-present
• Ad Hoc Reviewer, Diseases of the Esophagus, 2006-present
• Ad Hoc Reviewer, Journal of Clinical Oncology, Pancreatology, and Gastrointestinal Endoscopy, 2006-present
• Laser Safety Committee, UPMC, 2002-present
• eRecord Physician Advisory Committee, UPMC, 2008-present
• Editorial Board, World Journal of Gastroenterology, 2007-present
• Ad Hoc Reviewer, Digestive and Liver Disease, 2007-present
• Ad Hoc Reviewer, Scandinavian Journal of Gastroenterology, 2008-present
• Ad Hoc Reviewer, Annals of Thoracic Surgery, 2009-present
• Editorial Review Board, Gastrointestinal Endoscopy, 2012-present
• Ad Hoc Reviewer, Gastroenterology and Hepatology, 2013-present
• Best Teacher, GI Faculty, 2016

Sudhir Narla MD
• Chief, GI Unit and Division of Gastroenterology, UPMC McKeesport Hospital, McKeesport, PA, 1997-present
• Clinical Assistant Professor, University of Pittsburgh School of Medicine, 2009-present

Stephen O’Keefe MD MSc
• Clinical Lecturer, Annual State of Art Lectures, 2003-present
• International Chair of Data Monitoring Committee for the “Reducing Deaths Due to Oxidative Stress” (The REDOXS© Study), a randomized multicenter multinational clinical trial of glutamine and anti-oxidant supplementation in critically ill patients. PI: Dr. Daren Heyland, Queens University, Kingston, Ont. Funding: Canadian Institute of Health Research, 2006-present
• Chair, Research in Nutritional Gastroenterology Group, 2004-present
• Member, The American Gastroenterological Association, American Society for Parenteral and Enteral Nutrition (Member of International Advisory Subcommittee, ASPEN), 1989-present
• Editorial Board: World Journal of Gastroenterology, 2005-present
• Editor: Gastroenterology Research and Practice, 2009-present
• Associate Editor: Frontiers in Gastroenterology Physiology and Science, 2010-present
• Assistant Editor-in-Chief: World Journal of Gastroenterology, 2011-present
• Reviewer, South African Research Foundation, 2013-present
• AGA Nominating Committee, Nutrition and Obesity Section, 2014-present
• Fundable impact score of 22, percentile 7.0 on new NIH Ro1 application RO1 CA204403-01A1, Randomized Controlled Trial of Fiber in the Reduction of Colon Cancer Risk in Alaskan Native People, 2016
• Contribution to the acclaimed PBS TV documentary “In Defense of Food,” edited by Michael Polan and nominated for an Emmy Award, 2016

Georgios Papachristou MD
• Colorectal Cancer Prevention Committee; Pittsburgh Veteran Affairs Health System, 2009-present
• Director of Endoscopy, Veterans Affairs Health Systems, 2006-present
• Co-Director in Pancreas Research, UPMC, 2010-present
• Fellow, American Society of Gastrointestinal Endoscopy (ASGE), 2012-present
• Board Member, Pennsylvania Society of Gastroenterology (PSG), 2013-present
• Editorial Board, Annals of Gastroenterology, 2010-present
• Clinical Practice Committee, American Gastroenterology Association, 2012-present
• Educational Affairs Committee, American College of Gastroenterology, 2012-present
• Publications Committee, American Society of Gastrointestinal Endoscopy, 2011-present
• Reviewer, Gastroenterology, 2010-present
• Reviewer, Clinical Gastroenterology and Hepatology, 2010-present
• Reviewer, Dutch Digestive Foundation for International Grant Proposals, 2010-present
• Member, Dutch Digestive Foundation 2009-present
• Reviewer, Pancreas, 2005-present
• Reviewer, American Journal of Gastroenterology, 2006-present
• Reviewer, Gastrointestinal Endoscopy, 2007-present
• Board Member, World Journal of Gastroenterology, 2008-present
• Treasurer, Collaborative Alliance for Pancreas Research and Education (CAPER), 2014-present
• Member, American College of Gastroenterology (ACG) Educational Affairs Committee, 2013-present
• Editorial Board, Annals of Gastroenterology, 2010-present
• Region Councilor, Pennsylvania Society of Gastroenterology, 2015-present

Mordechai Rabinovitz MD
• Reviewer, Digestive Diseases and Sciences, 1987-present
• Reviewer, Hepatology, 1992-present
• Reviewer, Gastroenterology, 1993-present
• Reviewer, Mayo Clinic Proceedings, 2003-present

Vikrant Rachakonda MD
• American Association for the Study of Liver Diseases, 2010-present
• American Gastroenterology Association, 2010-present
• American Society of Gastrointestinal Endoscopy, 2010-present

Miguel Regueiro MD
• Director, GI Fellowship Program, 2005-present
• Associate Chief of Education, 2006-present
• Co-Director and Clinical Head, Inflammatory Bowel Disease Center, 2000-present
• Faculty Mentor Scholarly Project Initiative, University of Pittsburgh Medical School, 2004-present
• Reviewer, Gastroenterology, 2003-present
• Reviewer, Inflammatory Bowel Disease, 2003-present
• Reviewer, Clinical, Gastroenterology and Hepatology, 2003-present
• Reviewer, American Journal of Gastroenterology, 2001-present
• Reviewer, Digestive Disease and Sciences, 2001-present
• Reviewer, Cleveland Clinic Journal of Medicine, 2000-present
• Reviewer, Gastroenterology, 2003-present
• Reviewer, Clinics of North America, 2003-present
• Reviewer, Drugs and Aging, Current Drugs, 2001-present
• Associate Editor, Inflammatory Bowel Disease Journal, 2006-present
• Speaker's Bureau/Physician Consultant, Crohn's and Colitis Foundation of America, 1998-present
• Chairman, Medical Advisory Board, Member and Executive, 1998-present
• Medical Advisory Board, Crohn's and Colitis Foundation of America, Western Pennsylvania and West Virginia Chapter, January 1999-present
• American College of Gastroenterology Maintenance of Certification Subcommittee, 2016-present
• UPMC Quality Improvement Committee, 2016-present
• Pittsburgh Top Doctor, 2012-present

Shari Rogal MD MPH (adjunct)
• Director of Simulated Endoscopy Training for Gastroenterology Fellows, 2015-present
• American Society for Transplantation Education Committee, 2014-present

http://www.dom.pitt.edu/gi
• Medical Student Gastroenterology Course (12-15 second year medical students, 4-16 hours per year), 2011-present
• John J. Fung Endowed Assistant Professorship in Transplant Surgery, 2016

Vinod Rustgi MD (resigned FY16)
• Fellow, American College of Physicians, 1982-present
• Fellow, American Gastroenterological Association, 2011-present
• Member, American Association for the Study of Liver Diseases, 1982-present
• Member, American College of Gastroenterology, 1985-present
• Co-chaired sessions at AASLD and AST meetings, 1995-present
• Editorial Board, Clinical Transplantation, 2014-present
• Editorial Board, Gastroenterology Open Library (GASOL), 2014-present

Robert Schoen MD MPH
• Editorial Board, American Journal of Gastroenterology, 2006-present
• Editorial Board, Clinical Gastroenterology and Hepatology, 2007-present
• President, Pittsburgh Gut Club, 2008-present
• Program Project Review, Cancer Risk Evaluation Program (CaRE), 2007-present
• Program Project Review, American College of Gastroenterology, 2007-present
• Program Project Review, Colorectal Cancer Prevention, 2007-present
• Program Project Review, Cancer Research United Kingdom, Clinical Research Training Fellowship, 2006-present
• Reviewer, Gastroenterology, 2007-present
• Reviewer, Digestive Diseases and Sciences, 2007-present
• Reviewer, Preventive Medicine, 2007-present
• Reviewer, American Journal of Gastroenterology, 2007-present
• Reviewer, Journal of the National Cancer Institute, 2007-present
• Reviewer, Cancer Epidemiology, 2007-present
• Reviewer, International Journal of Cancer, 2007-present
• Reviewer, JAMA, 2007-present
• Reviewer, Oncology, 2007-present
• Reviewer, Gut, 2007-present
• Reviewer, New England Journal of Medicine
• Chair, Colon Organ Site Committee, Prostate, Lung, Colorectal & Ovarian Cancer Screening Trial, 2002-present
• Member, National Colorectal Cancer Roundtable, Quality Assurance Task Group, 2003-present
• Member of Sub-Committee for UPMC Health Plan Quality Improvement Committee, 1998-present
• Publications Sub-Committee, Prostate, Lung, Colorectal and Ovarian Cancer Screening Trial, 2002-present
• Publications Sub-Committee, Prostate, Lung, Colorectal and Ovarian Cancer Screening Trial, 1998-present

Marc Schwartz MD
• Physician Member, Crohn's & Colitis Foundation of America (CCFA), 2009-present

Obaid S Shaikh MD
• Director, Center for Liver Diseases, 2001-present
• Member, Clinical Research Committee, AASLD, 2007-present
• Editorial Board, Liver Transplantation, 2005-present
• Member, DSMB, A2ALL: adult to adult living donor liver transplantation cohort (NIDDK 5U01 A1052748-02), 2003-present
• Member, Royal College of Physicians, London (U.K.)–Fellow (FRCP), 2003-present
• Reviewer, Gastroenterology, 2007-present
• Reviewer, Hepatology, 2007-present
• Reviewer, Liver Transplantation, 2007-present
• Reviewer, Digestive Diseases & Sciences, 2007-present
• Reviewer, American Journal of Gastroenterology, 2007-present
• Reviewer, Archives of Internal Medicine, 2007-present
• Member, Liver Transplantation and Surgery Committee, American Association for the Study of Liver Diseases, 2008-present
• Member, Liver Transplantation and Surgery (Special Interest Group), American Association for the Study of Liver Diseases, 2008-present
• Lecturer, State of the Art Lecture Series, University of Pittsburgh, 2007-present
• Lecturer, Digestive Disease Course Workshop, 2007-present

Adam Slivka MD PhD
• Section Editor, Up to Date, 2006-present
• Associate Chief, Clinical Affairs, 2003-present
• Member, Editorial Review Board, Gastroenterology, 1996-present
• Member, Clinical Operations Committee, University of Pittsburgh Physicians (UPP), 1999-present
• Member, Compliance Advisory Committee of the University of Pittsburgh Physicians (UPP), 1999-present
• Advisory Committee Member, Medicine Program Line, 1999-present
• Member, Technology Committee for the American Society for Gastrointestinal Endoscopy, 1999-present
• Committee Member, Budget and Financial Planning, American Society for Gastrointestinal Endoscopy, 1999-present
• Member, Editorial Review Board, Gastrointestinal Endoscopy, 2007-present
• Reviewer, New England Journal of Medicine, 1994-present
• Reviewer, Endoscopy, 1994-present
• Reviewer, Gastroenterology, 1994-present
• Reviewer, American Journal of Gastroenterology, 1996-present
• Reviewer, Gastrointestinal Endoscopy, 1999-present
• Member, The Surgical/Interventional/Trauma/Transplant Subcommittee of the UPMC Technology Assessment Committee, 2002-present
• Top Doctor (chosen by own peers) Pittsburgh Magazine 2009-present

Jason M Swoger MD MPH
• Training Committee, American College of Gastroenterology, 2006-present
• Clinical Research Alliance Member, Crohn's & Colitis Foundation of America (CCFA), 2010-present
• Editorial Board (International), Alimentary Pharmacotherapy and Therapeutics, 2014-present
• Crohn’s and Colitis Foundation of America Patient Education Committee, 2012-present

Eva Szigethy MD PhD
• Pediatric Affairs Committee, Crohn's and Colitis Foundation, 2003-present
• Association of Women Psychiatrists, 2003-present
• American Board of Psychiatry and Neurology Board Examiner of Child Psychiatry, 2003-present
• President, New England Chapter of Hungarian American Medical Association, 2004-present
• Medical Advisor, CCFA comic book for children with IBD, 2006-present
• Medical Advisory Committee, IBD Support Foundation, 2007-present
• American Society of Clinical Hypnosis, 2007-present
• American Academy of Psychoanalysis and Dynamic Psychiatry, 2009-present

Department of Medicine

http://www.dom.pitt.edu/gi
Klingenstein Foundation Research Award for best published paper in Depression and Suicide, American Academy of Child and Adolescent Psychiatry (AACAP) 2015
Co-Director, IBD Subspecialty Medical Home (IBD Total Care), UPMC Health Plan Supported Project, 2016
Behavioral Consultant to UPMC Enterprises
Nominated to Editorial Board, American Academy of Child and Adolescent Psychiatry Journal
Recipient of Beckwith grant for Development of RELATE Curriculum to improve physician communication, 2016
The National Association of Professional Women, 2010-present
Editorial Board, Experience Journal, Department of Psychiatry, Children’s Hospital Boston, 2002-present
American Hypnosis Society of Clinical Hypnosis (ASCH) Chair of Task Force on Research, 2012-present
Annual Meeting Editor for the American Academy of Child & Adolescent Psychiatry (AACAP), 2012-present
Member, Professional Education Committee (PEC) of the American Psychosomatic Society, 2012-present
Member, American Psychiatric Association, 1993-present
Member, American Academy of Child and Adolescent Psychiatry, 1997-present
Member, CCFA, 2002-present
Scientific Consultant, iHope Network, 2014-2016
Faculty Recognition at University of Pittsburgh Honors Convocation, February 23, 2016

Lee Weinberg MD

- Allegheny County Medical Society, 198-present
- Pennsylvania Medical Society, 1981-present
- Pennsylvania Society of Gastroenterology, 1981-present

David C. Whitcomb MD PhD

- Director, PancreasFest, Pittsburgh, 2016
- Associate Editor, Pancreas, Pancreatology and Digestive Disease and Science, 2007-present
- Editorial Board, Pancreas, 2007-present
- Editorial Board, Pancreatology, 2007-present
- Editorial Board, American Journal Physiology: Gastrointestinal and Liver Physiology, 2007-present
- Editorial Board, Nature Reviews: Gastroenterology and Hepatology, 2007-present
- Section Editor, Current Treatment Options in Gastroenterology, 2007-present
- Peer Reviewer, Alimentary Pharmacology and Therapeutics, 2007-present
- Peer Reviewer, American Journal of Gastroenterology, 2007-present
- Peer Reviewer, American Journal of Pathology, 2007-present
- Peer Reviewer, American Journal of Physiology–Gastroenterology, 2007-present
- Peer Reviewer, American Journal of Physiology–Regulatory Integrative and Comparative Physiology, 2007-present
- Peer Reviewer, Digestive Diseases and Sciences, 2007-present
- Peer Reviewer, FASEB Journal, 2007-present
- Peer Reviewer, Gastroenterology, 2007-present
- Peer Reviewer, Gut, 2007-present
- Peer Reviewer, Journal of the American Medical Association (JAMA), 2007-present
- Peer Reviewer, Lancet, 2007-present
- Peer Reviewer, Nature, 2007-present
- Peer Reviewer, Nature Clinical Practice, 2007-present
- Peer Reviewer, New England Journal of Medicine, 2007-present
- Peer Reviewer, Pancreas, 2007-present
- Peer Reviewer, Pancreatology, 2007-present
• Peer Reviewer, European Journal of Pediatrics, 2007-present
• Peer Reviewer, International Journal of Pancreatology, 2007-present
• Peer Reviewer, International Journal of Cancer, 2007-present
• Committee Member, National Pancreas Foundation, 2007 - present
• American Gastroenterological Association, 1992-present
• American College of Gastroenterology, 1996-present
• American Society for Clinical Investigators, 2000-present
• American Pancreatic Association, 2000-present
• International Association of Pancreatology, 2000-present
• European Pancreas Club, 2002-present
• Founder/Member, Collaborative Alliance for Pancreatic Education and Research, 2012-present
• Endowed Chair, Giant Eagle Foundation Professor of Cancer Genetics, 2006-present
• AGA Pancreatic Disorders (PAN) Section Research Mentor Award, Digestive Disease Week, San Diego, CA, May 21, 2016
• Alpha Omega Alpha (AOA) Honor Medical Society, the Ohio State University Chapter, 2016

Kirk Works MD
• American College of Gastroenterology, 1991-present

Dhiraj Yadav MD MPH
• Faculty Coordinator, Gastroenterology Fellowship Journal Club, 2007-present
• Member, Scientific Advisory Committee, Montefiore University Hospital, Clinical and Translational Research Center (Formerly GCRC), UPMC, 2007-present
• Member, Collaborative Alliance for Pancreatic Education and Research, 2010-present
• Member, Research Review Panel, American Gastroenterological Association, 2014-present
• Reviewer, Journal of Gastroenterology and Hepatology, Pancreatology, Nutrition and Cancer, Pancreas, 2007-present
• Editorial Board, World Journal of Gastroenterology, 2010-present
• Facilitator, Problem-Based Learning Small Groups, 2nd year Medical Student workshop, University of Pittsburgh, 2007-present
• Nominating Committee, Pancreas Disorders Section, AGA, 2014-2016
• Steering Committee, NPF Registry, 2015-present
• Editorial Board: Pancreas, 2013-present
• Editorial Board: Pancreatology, 2014-present
• American College of Gastroenterology, 1998-present
• American Pancreatic Association, 2003-present
• American Gastroenterological Association, 2005-present
• Mayo Clinic Alumni Association, 2002-present
• Collaborative Alliance for Pancreatic Education and Research, 2010-present
# GRANTS AND CONTRACTS AWARDED

<table>
<thead>
<tr>
<th>PUBLIC HEALTH SERVICE</th>
<th>RECIPIENT</th>
<th>PROJECT TITLE</th>
<th>AWARDING AGENCY</th>
<th>DIRECT COSTS</th>
<th>INDIRECT COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BINION, DAVID</td>
<td>NIDA</td>
<td>REINFORCEMENT-ENHANCING EFFECTS OF NRT</td>
<td>NIDA</td>
<td>$3,927</td>
<td>$2,121</td>
</tr>
<tr>
<td>DUERR, RICHARD H.</td>
<td>NIDDK IBD GENETICS CONSORTIUM GENETIC RESEARCH CENTER</td>
<td>LEADERSHIP OPERATIONS CENTER (LOC): MICROBICIDE TRIALS NETWORK MTN 026 YEAR 10 PROTOCOL FUNDS</td>
<td>MAGEE WOMENS RESEARCH INSTITUTE AND FOUNDATION/ NI</td>
<td>$239,418</td>
<td>$129,285</td>
</tr>
<tr>
<td>DUERR, RICHARD H.</td>
<td>NIDDK</td>
<td>DIPYRIDAMOLE AS A MODULATOR OF HIV-1 INFLAMMATION BY ADENOSINE REGULATION</td>
<td>NIAID</td>
<td>$16,901</td>
<td>$9,127</td>
</tr>
<tr>
<td>LEVINTHAL, DAVID J.</td>
<td>NIDDK</td>
<td>CEREBRAL CORTICAL INFLUENCES ON THE STOMACH</td>
<td>NIDDK</td>
<td>$136,690</td>
<td>$10,935</td>
</tr>
<tr>
<td>LIU, YANG</td>
<td>NCI</td>
<td>PQC2 ALTERATION OF 3D NUCLEAR ORGANIZATION AT NANOSCALE IN BREAST TUMORIGENESIS</td>
<td>NCI</td>
<td>$186,744</td>
<td>$100,841</td>
</tr>
<tr>
<td>LIU, YANG</td>
<td>NIBIB</td>
<td>NOVEL NANOSCALE SINGLE-CELL ANALYSIS OF EXFOLIATIVE CYTOLOGY</td>
<td>NIBIB</td>
<td>$214,389</td>
<td>$115,770</td>
</tr>
<tr>
<td>PAPACHRISTOU, GEORGIOS</td>
<td>Medical University of South Carolina/ NIDDK</td>
<td>EVALUATING A PREDICTION TOOL AND DECISION AID FOR PATIENTS WITH CROHN'S DISEASE</td>
<td>Medical University of South Carolina/ NIDDK</td>
<td>$81,380</td>
<td>$43,945</td>
</tr>
<tr>
<td>REGUEIRO, MIGUEL</td>
<td>Dartmouth College/ AHRQ</td>
<td>DETECTION OF COLORECTAL CANCER SUSCEPTIBILITY LOCI USING GENOME-WIDE SEQUENCING</td>
<td>Dartmouth College/ AHRQ</td>
<td>$3,606</td>
<td>$1,893</td>
</tr>
<tr>
<td>SCHOEN, ROBERT E.</td>
<td>NCI</td>
<td>MEASURING AND IMPROVING COLONOSCOPY QUALITY USING NATURAL LANGUAGE PROCESSING</td>
<td>Harvard University/ NCI</td>
<td>$1,410</td>
<td>$761</td>
</tr>
<tr>
<td>SCHOEN, ROBERT E.</td>
<td>NIH</td>
<td>PROSTATE, LUNG, COLORECTAL AND OVARIAN (PLCO) CENTRAL DATA COLLECTION CENTER</td>
<td>Westat, Inc./ NIH</td>
<td>$4,395</td>
<td>$2,373</td>
</tr>
<tr>
<td>SCHOEN, ROBERT E.</td>
<td>NCI</td>
<td>CTDNA FOR THE EARLY DETECTION AND MONITORING OF COLORECTAL CANCER</td>
<td>NCI</td>
<td>$87,694</td>
<td>$47,355</td>
</tr>
<tr>
<td>SCHOEN, ROBERT E.</td>
<td>NCI</td>
<td>CT DNA FOR THE EARLY DETECTION AND MONITORING OF COLORECTAL CANCER</td>
<td>NCI</td>
<td>$87,694</td>
<td>$47,355</td>
</tr>
</tbody>
</table>

Department of Medicine

[http://www.dom.pitt.edu/gi](http://www.dom.pitt.edu/gi)
<table>
<thead>
<tr>
<th>Name</th>
<th>Project Description</th>
<th>Institution/Grantor</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCHOEN, ROBERT E.</td>
<td>Prostate, Lung, Colorectal and Ovarian (PLCO) Cancer Screening Trial</td>
<td>WESTAT, INC./ NIH</td>
<td>$20,932</td>
<td>$11,303</td>
</tr>
<tr>
<td>SCHOEN, ROBERT E.</td>
<td>Molecular Risk Stratification for Colonoscopic Surveillance</td>
<td>MASSACHUSETTS GENERAL HOSPITAL/ NCI</td>
<td>$9,279</td>
<td>$5,011</td>
</tr>
<tr>
<td>SCHOEN, ROBERT E.</td>
<td>Molecular Pathological Epidemiology of Colorectal Cancer</td>
<td>FRED HUTCHINSON CANCER RESEARCH CENTER/ NCI</td>
<td>$11,029</td>
<td>$5,956</td>
</tr>
<tr>
<td>SCHOEN, ROBERT E.</td>
<td>Colorectal Tumor Risk Prediction in PLCO Trial Bid-Mediated Killing of Oncogenic Stem Cells in Chemoprevention</td>
<td>NCI</td>
<td>$16,546</td>
<td>$8,935</td>
</tr>
<tr>
<td>SCHOEN, ROBERT E.</td>
<td>Refinement and Discovery of Nuclear Matrix Protein Markers for Colorectal Cancer</td>
<td>JOHNS HOPKINS UNIVERSITY / NCI</td>
<td>$39,847</td>
<td>$20,920</td>
</tr>
<tr>
<td>SCHOEN, ROBERT E.</td>
<td>Randomized, Double-Blind, Placebo-Controlled Trial of MUC1 Vaccine in Patients with Newly Diagnosed Advanced Adenomas</td>
<td>MAYO FOUNDATION/ NIH</td>
<td>$91,013</td>
<td>$17,063</td>
</tr>
<tr>
<td>SHAIKH, A. OBAID</td>
<td>Hepatitis B Clinical Research Network - Data Coordinating Center</td>
<td>NIDDK</td>
<td>$18,634</td>
<td>$10,062</td>
</tr>
<tr>
<td>WHITCOMB, DAVID C.</td>
<td>Evaluation of Pain in Chronic Pancreatitis Using The NAP52 Cohorts</td>
<td>NIDDK</td>
<td>$75,238</td>
<td>$40,628</td>
</tr>
<tr>
<td>WHITCOMB, DAVID C.</td>
<td>Validation of Biomarkers for Early Diagnosis and Risk Prediction of Pancreatic Neoplasms</td>
<td>NCI</td>
<td>$10,618</td>
<td>$5,734</td>
</tr>
<tr>
<td>WHITCOMB, DAVID C.</td>
<td>Digestive Diseases Training Program</td>
<td>NIDDK</td>
<td>$166,544</td>
<td>$11,684</td>
</tr>
<tr>
<td>WHITCOMB, DAVID C.</td>
<td>Consortium for the Study of Pancreatitis: Pittsburgh Clinical Center</td>
<td>NIDDK</td>
<td>$208,333</td>
<td>$108,333</td>
</tr>
<tr>
<td>WHITCOMB, DAVID C.</td>
<td>PancreasFest2015: Applying Research Discoveries in Pancreatitis &amp; Pancreatic Cancer to Patient-Centered Care</td>
<td>NIDDK</td>
<td>$15,000</td>
<td>$0</td>
</tr>
<tr>
<td><strong>Total Public Health Service</strong></td>
<td></td>
<td></td>
<td><strong>$1,681,165</strong></td>
<td><strong>$721,698</strong></td>
</tr>
<tr>
<td>FEDERAL</td>
<td>WHITCOMB, DAVID C.</td>
<td>DEPARTMENT OF DEFENSE</td>
<td>DIRECT COSTS</td>
<td>INDIRECT COSTS</td>
</tr>
<tr>
<td>---------</td>
<td>-------------------</td>
<td>----------------------</td>
<td>--------------</td>
<td>---------------</td>
</tr>
<tr>
<td></td>
<td>ACUTE PANCREATITIS AS A MODEL TO PREDICT TRANSITION OF SYSTEMIC INFLAMMATION TO ORGAN FAILURE IN TRAUMA AND CRITICAL ILLNESS</td>
<td></td>
<td>$251,432</td>
<td>$95,984</td>
</tr>
<tr>
<td></td>
<td>TOTAL FEDERAL</td>
<td></td>
<td>$251,432</td>
<td>$95,984</td>
</tr>
<tr>
<td></td>
<td>SOCIETY AND FOUNDATIONS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>BEHARI, JAIDEEP</td>
<td>GENERAL ELECTRIC COMPANY</td>
<td>$2,352</td>
<td>$588</td>
</tr>
<tr>
<td></td>
<td>BINION, DAVID</td>
<td>UCB, INC.</td>
<td>$28,286</td>
<td>$17,396</td>
</tr>
<tr>
<td></td>
<td>BRAND, RANDALL</td>
<td>MAGEE WOMENS HOSPITAL</td>
<td>$19,842</td>
<td>$0</td>
</tr>
<tr>
<td></td>
<td>BRAND, RANDALL</td>
<td>AMBRY GENETICS CORPORATION</td>
<td>$2,666</td>
<td>$666</td>
</tr>
<tr>
<td></td>
<td>BRAND, RANDALL</td>
<td>LUSTGARTEN FOUNDATION</td>
<td>$39,600</td>
<td>$7,920</td>
</tr>
<tr>
<td></td>
<td>DUERR, RICHARD H.</td>
<td>CROHNS &amp; COLITIS FOUNDATION</td>
<td>$11,493</td>
<td>$1,149</td>
</tr>
<tr>
<td></td>
<td>DUERR, RICHARD H.</td>
<td>CROHNS &amp; COLITIS FOUNDATION</td>
<td>$40,615</td>
<td>$3,481</td>
</tr>
<tr>
<td></td>
<td>KUZMISHIN, JANET HARRISON</td>
<td>MAGEE WOMENS HOSPITAL</td>
<td>$4,000</td>
<td>$0</td>
</tr>
<tr>
<td></td>
<td>LEVINTHAL, DAVID J.</td>
<td>CONSORTIUM OF MULTIPLE SCLEROSIS CENTERS</td>
<td>$18,182</td>
<td>$1,818</td>
</tr>
<tr>
<td></td>
<td>SLIVKA, ADAM</td>
<td>MEDICAL UNIVERSITY OF SOUTH CAROLINA</td>
<td>$1,956</td>
<td>$267</td>
</tr>
<tr>
<td></td>
<td>SWOGER, JASON M.</td>
<td>UNIVERSITY OF PENNSYLVANIA/CCFA</td>
<td>$4,091</td>
<td>$409</td>
</tr>
<tr>
<td>Project</td>
<td>Investigator</td>
<td>Funding</td>
<td>Direct</td>
<td>Indirect</td>
</tr>
<tr>
<td>---------</td>
<td>--------------</td>
<td>---------</td>
<td>--------</td>
<td>----------</td>
</tr>
<tr>
<td>HYPERBARIC OXYGEN THERAPY FOR MODERATE TO SEVERE ULCERATIVE COLITIS FLARES: A MULTI-CENTER, RANDOMIZED, DOUBLE-BLIND, SHAM-CONTROLLED TRIAL</td>
<td>SWOGER, JASON M.</td>
<td>DARTMOUTH COLLEGE</td>
<td>$13,250</td>
<td>$0</td>
</tr>
<tr>
<td>TOTAL SOCIETY AND FOUNDATIONS</td>
<td></td>
<td></td>
<td>$186,333</td>
<td>$33,694</td>
</tr>
</tbody>
</table>

**INDUSTRY**

<table>
<thead>
<tr>
<th>Project</th>
<th>Investigator</th>
<th>Funding</th>
<th>Direct</th>
<th>Indirect</th>
</tr>
</thead>
<tbody>
<tr>
<td>A PHASE 3, DOUBLE-BLIND, RANDOMIZED, LONG-TERM, PLACEBO-CONTROLLED, MULTICENTER STUDY EVALUATING THE SAFETY AND EFFICACY OF OBETICHOLIC ACID IN SUBJECTS WITH NONALCOHOLIC STEATOHEPATITIS</td>
<td>BEHARI, JAIDEEP</td>
<td>INTERCEPT</td>
<td>$11,500</td>
<td>$0</td>
</tr>
<tr>
<td>A PHASE 2, RANDOMIZED, OPEN LABEL STUDY EVALUATING THE SAFETY, TOLERABILITY, AND EFFICACY OF GS-4997 ALONE OR IN COMBINATION WITH SIMTUZUMAB (SIM) IN SUBJECTS WITH NONALCOHOLIC STEATOHEPATITIS (NASH) AND FIBROSIS STAGES F2-F3</td>
<td>BEHARI, JAIDEEP</td>
<td>GILEAD SCIENCES</td>
<td>$30,677</td>
<td>$4,794</td>
</tr>
<tr>
<td>MEAN SIBDQ TO STRATIFY CROHN'S DISEASE PATIENTS: IMPACT OF NEUROPSYCHIATRIC ILLNESS, CHRONIC PAIN AND REFRACTORY INFLAMMATION</td>
<td>BINION, DAVID</td>
<td>JANSSEN PHARM</td>
<td>$4,171</td>
<td>$979</td>
</tr>
<tr>
<td>NATURAL HISTORY OF CLOSTRIDIUM DIFFICILE INFECTION IN INFLAMMATORY BOWEL DISEASE PATIENTS</td>
<td>BINION, DAVID</td>
<td>CUBIST PHARMACEUTICALS</td>
<td>$62,484</td>
<td>$36,865</td>
</tr>
<tr>
<td>AN OPEN LABEL STUDY OF SOFOSBUVIR/GS-5816 FIXED-DOSE COMBINATION IN SUBJECTS WITH CHRONIC HCV INFECTION</td>
<td>RABINOVITZ, MORDECHAI</td>
<td>GILEAD</td>
<td>$7,044</td>
<td>$1,761</td>
</tr>
<tr>
<td>Study Description</td>
<td>Sponsor</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------</td>
<td>---------------------------------------</td>
<td>--------------</td>
<td>----------------</td>
<td></td>
</tr>
<tr>
<td>A Phase II, Randomized, Open-Label Clinical Trial to Study the Efficacy and</td>
<td>Merck &amp; Co.</td>
<td>$8,100</td>
<td>$400</td>
<td></td>
</tr>
<tr>
<td>Safety of the Combination Regimen of MK-3682B (NK-5172 + MK-3682 + MK-8408 Fixed</td>
<td>Rabinovitz, Mordechai</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dose Combination (FDC) in Subjects with Chronic HCV GT1 or GT3 Infection Who</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have Failed a Direct</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A Long Term Follow-Up Registry for Subjects Who Achieve a Sustained Virologic</td>
<td>Gilead Sciences, Inc.</td>
<td>$35,959</td>
<td>$7,500</td>
<td></td>
</tr>
<tr>
<td>Response to Treatment in Gilead-Sponsored Trials in Subjects with Chronic HCV</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cirrhosis Who Achieve a Sustained Virologic Response Following Treatment with a</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sofosbuvir-Based Regimen Without Interferon for Chronic Hepatitis C Infection in</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gilead-Sponsored Trials</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A Phase 2, Global, Multicenter, Randomized, Open-Label Study to Investigate the</td>
<td>Gilead Sciences, Inc.</td>
<td>$32,564</td>
<td>$8,141</td>
<td></td>
</tr>
<tr>
<td>Safety and Efficacy of GS-9857 Plus Sofosbuvir/GS-5816 Fixed Dose Combination in</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subjects with Chronic Genotype 1 HCV Infection</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A Phase II, Randomized, Open-Label Clinical Trial to Study the Efficacy and</td>
<td>Merck &amp; Co.</td>
<td>$50,498</td>
<td>$10,999</td>
<td></td>
</tr>
<tr>
<td>Safety of the Combination Regimen of MK-5172 and MK-3682 with Either MK-8742 or</td>
<td>Rabinovitz, Mordechai</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MK-8408 in Subjects with Chronic HCV GT 1, GT 2 and GT 3 Infection</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Study Description</td>
<td>Funding Source</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------</td>
<td>----------------</td>
<td>--------------</td>
<td>----------------</td>
<td></td>
</tr>
<tr>
<td>A randomized, global, double-blind, placebo-controlled, parallel-group study to evaluate the efficacy and safety of once-daily oral avatrombopag for the treatment of adults with thrombocytopenia associated with liver disease prior to an elective procedure</td>
<td>Eisai Medical Research</td>
<td>$2,300</td>
<td>$0</td>
<td></td>
</tr>
<tr>
<td>A phase 3, global, multicenter, randomized, open-label study to investigate the safety and efficacy of sofosbuvir/velpatasvir/gs-9857 fixed-dose combination for 12 weeks and sofosbuvir/velpatasvir for 12 weeks in direct-acting antiviral-experienced subjects</td>
<td>Gilead Sciences</td>
<td>$36,361</td>
<td>$6,215</td>
<td></td>
</tr>
<tr>
<td>A phase 3 randomised, double-blind, placebo-controlled study to assess the safety and efficacy of s-888711 (lusutrombopag) for the treatment of thrombocytopenia in patients with chronic liver disease undergoing elective invasive procedures (L-Plus 2)</td>
<td>Shionogi Ltd</td>
<td>$10,800</td>
<td>$0</td>
<td></td>
</tr>
<tr>
<td>A long term follow-up study to evaluate the durability of virologic response and/or viral resistance patterns of subjects with chronic hepatitis C who have been previously treated with mk 5172 in a prior clinical trial</td>
<td>Merck &amp; Co., Inc.</td>
<td>$13,226</td>
<td>$1,682</td>
<td></td>
</tr>
</tbody>
</table>

Department of Medicine

http://www.dom.pitt.edu/gi
<table>
<thead>
<tr>
<th>Project Title</th>
<th>Sponsor</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Phase 2, Global, Multicenter, Randomized, Open-Label Study To Investigate</td>
<td>Gilead Sciences, Inc.</td>
<td>$10,360</td>
<td>$1,900</td>
</tr>
<tr>
<td>The Safety and Efficacy of GS-9857 Plus Sofosbuvir/GS-5816 Fixed Dose</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combination in Subjects With Chronic Non-Genotype 1 HCV Infection</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A Randomized, Double-Bind, Placebo-Controlled, Parallel Group, Multiple</td>
<td>Bristol-Myers</td>
<td>$36,724</td>
<td>$6,806</td>
</tr>
<tr>
<td>Dose Study To Evaluate the Safety, Pharmacokinetics and Pharmacodynamic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effects of BMS-986036 in Adults With Non-Alcoholic Steatohepatitis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multicenter, Randomized Phase 2B Study To Evaluate the Efficacy, Safety</td>
<td>Ocera Therapeutics, Inc.</td>
<td>$30,384</td>
<td>$4,853</td>
</tr>
<tr>
<td>and Tolerability of OCR-002 (Ornithine Phenylacetate) In Hospitalized Patients</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With Cirrhosis and Associated Hyperammonemia With An Episode of Hepatic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Encephalopathy – STOP-HE Study</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A Phase 3, Multicenter, Randomized, Double-Bind, Placebo-Controlled Study</td>
<td>Gilead Sciences, Inc.</td>
<td>$4,860</td>
<td>$910</td>
</tr>
<tr>
<td>To Investigate the Efficacy and Safety of Sofosbuvir/GS-5816 Fixed Dose</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combination for 12 Weeks In Subjects With Chronic HCV Infection</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A Phase II, Randomized, Open-Label Clinical Trial To Study the Efficacy And</td>
<td>Merck</td>
<td>$64,502</td>
<td>$14,500</td>
</tr>
<tr>
<td>Safety of the Combination Regimen of MK-5172 and MK-3682 With Either MK-8742</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Or MK-8408 In Subjects With Chronic HCV GT1, GT2, and GT4 Infection</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Description</td>
<td>Sponsor</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>--------------</td>
<td>----------------</td>
</tr>
<tr>
<td>A phase II/III randomized clinical trial to study the efficacy and safety of the combination regimen of MK-5172 and MK-8742 in subjects with chronic hepatitis C virus infection and chronic kidney disease.</td>
<td>Merck Sharp &amp; Dohme Corp. – Merck</td>
<td>$1,647</td>
<td>$412</td>
</tr>
<tr>
<td>A phase 2 open-label study in patients with recurrent genotype 1 hepatitis C post-orthotopic liver transplant to explore the safety and efficacy of simeprevir and sofosbuvir with and without ribavirin (Galaxy).</td>
<td>Janssen Research &amp; Development, LLC</td>
<td>$14,433</td>
<td>$3,526</td>
</tr>
<tr>
<td>An open-label, multicenter study to evaluate the efficacy, safety, and pharmacokinetics of co-administration of ABT-493 and ABT-530 in subjects with chronic hepatitis C virus (HCV) genotype 1 infection.</td>
<td>Abbvie</td>
<td>$15,178</td>
<td>$3,795</td>
</tr>
<tr>
<td>A phase 3, multicenter, randomized, open-label study to investigate the efficacy and safety of a 12- or 8 week treatment regimen of simeprevir in combination with sofosbuvir in treatment-naïve.</td>
<td>Janssen Research &amp; Development, LLC</td>
<td>$2,037</td>
<td>$509</td>
</tr>
<tr>
<td>Randomized, observational study of entecavir to assess long-term outcomes associated with nucleoside/nucleotide monotherapy for patients with chronic HBV infection.</td>
<td>BMS</td>
<td>$37,780</td>
<td>$12,319</td>
</tr>
<tr>
<td>Study Description</td>
<td>Sponsor</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------</td>
<td>-----------------------</td>
<td>--------------</td>
<td>----------------</td>
</tr>
<tr>
<td>A PHASE 3, GLOBAL, MULTICENTER, RANDOMIZED, OPEN-LABEL STUDY TO INVESTIGATE THE SAFETY AND EFFICACY OF SOFOSBUVIR/VELOATASVIR/GS-9857 FIXED-DOSE COMBINATION FOR 8 WEEKS AND SOFOSBUVIR/VELPATARASVIR FOR 12 WEEKS IN SUBJECTS WITH CHRONIC GENOTYPE 3 HCV INFECT</td>
<td>GILEAD SCIENCES</td>
<td>$17,407</td>
<td>$1,602</td>
</tr>
<tr>
<td>A RANDOMIZED, OPEN-LABEL, MULTICENTER STUDY TO EVALUATE THE EFFICACY, SAFETY, AND PHARMACOKINETICS OF CO-ADMINISTRATION OF ABT-493 AND ABT-530 WITH AND WITHOUT RBV IN SUBJECTS WITH CHRONIC HEPATITIS C VIRUS (HCV) GENOTYPE 2 OR GENOTYPE 3 INFECTION</td>
<td>ABBVIE</td>
<td>$33,617</td>
<td>$8,404</td>
</tr>
<tr>
<td>A PHASE 3, GLOBAL, MULTICENTER, RANDOMIZED, OPEN-LABEL STUDY TO INVESTIGATE THE SAFETY AND EFFICACY OF SOFOSBUVIR/VELPATARASVIR/GS-9857 FIXED-DOSE COMBINATION FOR * WEEKS COMPARED TO SOFOSBUVIR/VELPATARASVIR FOR 12 WEEKS IN DIRECT-ACTING ANTIVIRAL NAIVE</td>
<td>GILEAD SCIENCES, INC.</td>
<td>$4,378</td>
<td>$1,095</td>
</tr>
<tr>
<td>A PHASE 3, GLOBAL, MULTICENTER, RANDOMIZED, OPEN-LABEL STUDY TO INVESTIGATE THE SAFETY AND EFFICACY OF SOFOSBUVIR/VELPATARASVIR/GS-9857 FIXED-DOSE COMBINATION FOR 8 WEEKS AND SOFOSBUVIR/VELPATARASVIR FOR 12 WEEKS IN DIRECT-ACTING ANTIVIRAL NAIVE</td>
<td>GILEAD</td>
<td>$70,390</td>
<td>$14,723</td>
</tr>
<tr>
<td>Researcher</td>
<td>Study Description</td>
<td>Sponsor</td>
<td>Direct Costs</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-----------------------------------------------------------------------------------</td>
<td>---------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Rabinovit, Mordechai</td>
<td>A phase 3, global, multicenter, randomized, double-blind, placebo-controlled study to investigate the safety and efficacy of sofosbuvir/velpatasvir/GS-9857 fixed-dose combination for 12 weeks in direct-acting antiviral-experienced subjects with chronic HC.</td>
<td>Gilead</td>
<td>$33,722</td>
</tr>
<tr>
<td>Regueiro, Miguel</td>
<td>A phase 3, open-label study to determine the long-term safety and efficacy of MLN0002 in patients with ulcerative colitis and Crohn's disease.</td>
<td>Millennium Pharmaceuticals</td>
<td>$18,286</td>
</tr>
<tr>
<td>Slivka, Adam</td>
<td>Randomized controlled trial comparing covered and uncovered biliary self expanding metal stents (SEMS) for pre-operative drainage during neoadjuvant therapy in patients with pancreatic cancer.</td>
<td>Boston Scientific</td>
<td>$51,316</td>
</tr>
<tr>
<td>Slivka, Adam</td>
<td>Evaluation of the effectiveness of Evolution biliary stent system – fully covered.</td>
<td>Med Institute, Inc.</td>
<td>$4,540</td>
</tr>
<tr>
<td>Swoger, Jason</td>
<td>A phase 2, randomized, double-blind, placebo-controlled, parallel group, multi-center study to investigate the safety and efficacy of APD334 in patients with moderately to severely active ulcerative colitis.</td>
<td>Arena Pharmaceuticals</td>
<td>$13,408</td>
</tr>
<tr>
<td>Swoger, Jason</td>
<td>A 5-year registry study of Humira (adalimumab) in subjects with moderately to severely active Crohn's disease (CD).</td>
<td>Abbott Laboratories</td>
<td>$480</td>
</tr>
<tr>
<td>Swoger, Jason</td>
<td>A phase 3, multicenter, randomized, placebo controlled, double-blind study to evaluate the safety and efficacy of ustekinumab maintenance therapy in subjects with moderately to severely active Crohn's disease.</td>
<td>Rec'd 1/26/12: Sponsor name change to: Janssen Research</td>
<td>$3,402</td>
</tr>
<tr>
<td>Name</td>
<td>Project Description</td>
<td>Sponsor</td>
<td>Direct Costs</td>
</tr>
<tr>
<td>----------------------</td>
<td>--------------------------------------------------------------------------------------</td>
<td>--------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>SWOGER, JASON</td>
<td>A NON-INTERVENTIONAL LONG-TERM POST-MARKETING REGISTRY OF PATIENTS TREATED WITH CERTOLIZUMAB PEGOL (CIMZIA®) FOR CROHN'S DISEASE</td>
<td>UCB, INC</td>
<td>$12,800</td>
</tr>
<tr>
<td>SWOGER, JASON</td>
<td>A DOUBLE-BLIND, RANDOMIZED, MULTICENTER STUDY OF HIGHER VERSUS STANDARD ADALIMUMAB DOSING REGIMENS FOR INDUCTION AND MAINTENANCE THERAPY IN SUBJECTS WITH MODERATELY TO SEVERELY ACTIVE ULCERATIVE COLITIS</td>
<td>ABBVIE, INC.</td>
<td>$20,962</td>
</tr>
<tr>
<td>SWOGER, JASON</td>
<td>A TREATMENT ALGORITHM FOR THE PREVENTION OF POST-OPERATIVE CROHNS DISEASE</td>
<td>ABBVIE, INC.</td>
<td>$27,361</td>
</tr>
<tr>
<td>WHITCOMB, DAVID C.</td>
<td>EMPLOYING PHARMACOLOGY IN HUMAN DISEASE RELEVANT TISSUE TO SUPPORT PHARMACEUTICAL DISCOVERY IN INFLAMMATORY BOWEL DISEASE</td>
<td>JANSSEN PHARM</td>
<td>$543,301</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL INDUSTRY</strong></td>
<td></td>
<td><strong>$1,432,441</strong></td>
</tr>
<tr>
<td></td>
<td><strong>PUBLIC HEALTH SERVICE</strong></td>
<td></td>
<td><strong>$1,681,165</strong></td>
</tr>
<tr>
<td></td>
<td><strong>FEDERAL</strong></td>
<td></td>
<td><strong>$251,432</strong></td>
</tr>
<tr>
<td></td>
<td><strong>SOCIETY AND FOUNDATIONS</strong></td>
<td></td>
<td><strong>$186,333</strong></td>
</tr>
<tr>
<td></td>
<td><strong>INDUSTRY</strong></td>
<td></td>
<td><strong>$1,432,441</strong></td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>$3,551,371</strong></td>
</tr>
</tbody>
</table>
TEACHING ACTIVITIES

The Division’s Gastroenterology Fellowship Program enjoyed a full complement of 16 gastroenterology fellows. More than 400 candidates applied for admission in FY16, with 40 interviewed and five selected. The Division's Gastroenterology Fellowship Program is led by Kenneth Fasanella MD, program director, and Jason Swoger MD MPH, associate program director.

The Division trained one transplant hepatology fellow in FY16. The Division’s Transplant Hepatology Fellowship Program is led by Dr. Kapil Chopra MD, program director, and Shahid Malik MD, associate program director.

The Division’s leadership in the School of Medicine’s Second Year Medical School GI Course continues to be evaluated highly. Faculty member Julia B. Greer MD MPH is the current co-course director. Other co-course directors include Kenneth Lee MD from the Department of Surgery, and Gigi Duker PhD from the Department of Cell Biology. Students’ changing expectations and the utilization of innovative teaching approaches in the School of Medicine are being explored and addressed by James B. McGee MD and his Laboratory of Educational Technology.

The Division hosted the following accredited physician education conferences in FY15:

- The international PancreasFest 2015 conference occurred in July 2015 and was held at the University Club in Oakland. Course directors included David Whitcomb MD, Randall Brand MD, Mark Lowe MD PhD, and Herbert Zeh MD. Attendance was excellent at 160 pancreatologists and related research and clinical subspecialists.
- Two IBD Collaborative case debate meetings were held at the Rivers Club in 2015. An average of 75 physicians attended each of these programs, co-directed by Marc Schwartz MD.
- Robert Schoen MD MPH coordinated the 2015 Pittsburgh Gut Club’s accredited lecture series for regional gastroenterologists. Three guest speakers presented, and attendance was around 60 physicians per session, many of whom were physicians in practice in the surrounding community.
- Internal accredited symposia:
  - GI Grand Rounds with course director, Dr. Kenneth Fasanella MD.
  - Hepatology Rounds with course director, Dr. Shahid Malik MD.
  - Advanced Endoscopy Conference with course director, Dr. Dhiraj Yadav MD MPH.
  - IBD LIVE with course director, Dr. Miguel Regueiro MD.

Most Division faculty served as keynote course faculty for accredited physician educational and research meetings throughout the world.
Teaching Honors and Awards

Leonard Baidoo MD
- Mentor and Liaison, School of Medicine, 2005-2016

Randall E Brand MD
- Course Director, GI State of the Art Lecture Series (fellows’ summer didactic education program), 2013-present
- Course Co-Director, PancreasFest 2015, Pittsburgh, PA, July 2016

Jennifer S Chennat MD
- SIEP Program Director, Interventional Endoscopy Fellowship Program, 2013-present

Kapil B. Chopra MD
- Program Director, Transplant Hepatology Fellowship Program, 2003-present

Kenneth E. Fasanella MD
- Program Director, Gastroenterology Fellowship Program, 2011-present
- Course Director, GI Grand Rounds, 2012-present

Julia B. Greer MD MPH
- Co-Director, Second Year GI Medical School Course (MS2 Digestion and Nutrition), 2010-present

Kevin M. McGrath MD
- Course Director, EUS weekly Education Meeting, 2003-present

Shahid Malik MD
- Associate Program Director, Transplant Hepatology Fellowship Program, 2011-present
- Course Director, weekly Hepatology Conference, 2011-present

Georgios I Papachristou MD PhD
- Course Co-Director, PancreasFest 2015, Pittsburgh, PA, July 2016

Miguel D Regueiro MD
- Course Director, IBD LIVE, weekly, interactive, online case-based program with 15 East Coast academic institutions, 2011-present

Robert E Schoen MD MPH
- Course Director, Pittsburgh Gut Club, 3 lectures, Pittsburgh, Spring 2016

Marc Schwartz MD
- Course Co-Director, IBD Collaborative, Pittsburgh, PA, December 2014, June 2015, and January 2016

Adam Slivka MD PhD
- Course Director, ERCP weekly Education Meeting, 2000-present

Jason M. Swoger MD MPH
- Associate Program Director, Gastroenterology Fellowship Program, 2011-present
David C. Whitcomb MD PhD
- Course Co-Director, PancreasFest 2015, Pittsburgh, PA, July 2016

Dhiraj Yadav MD MPH
- Mentor and Attending Director, GI Fellows' Weekly Educational Program and Journal Club, 2011-present
**Fellowship Program**

<table>
<thead>
<tr>
<th>Current Fellow</th>
<th>Medical School</th>
<th>Residency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akpan</td>
<td>University of Pennsylvania</td>
<td>Yale</td>
</tr>
<tr>
<td>Cherfane</td>
<td>Universite Saint Joseph, Lebanon</td>
<td>University of Iowa</td>
</tr>
<tr>
<td>Chintamaneni</td>
<td>Case Western</td>
<td>UPMC</td>
</tr>
<tr>
<td>Click</td>
<td>University of Virginia</td>
<td>UPMC</td>
</tr>
<tr>
<td>Das</td>
<td>Albert Einstein</td>
<td>Montefiore Medical Center</td>
</tr>
<tr>
<td>Desai</td>
<td>Texas A&amp;M</td>
<td>Mayo Clinic</td>
</tr>
<tr>
<td>Duggum</td>
<td>Jordan University of Science &amp; Technology</td>
<td>Cleveland Clinic</td>
</tr>
<tr>
<td>Evans</td>
<td>University of Pittsburgh</td>
<td>Yale</td>
</tr>
<tr>
<td>Ganesh</td>
<td>PSG Institute of Medical Science &amp; Research</td>
<td>UPMC</td>
</tr>
<tr>
<td>Johnston</td>
<td>University of Pennsylvania</td>
<td>Northwestern</td>
</tr>
<tr>
<td>Kabani</td>
<td>American University of Beirut</td>
<td>Georgetown</td>
</tr>
<tr>
<td>Machicado</td>
<td>Universidad Peruana Cavetano Heredia, Peru</td>
<td>University of Texas at Houston</td>
</tr>
<tr>
<td>Mannem</td>
<td>Medical College of Wisconsin</td>
<td>Barnes-Jewish</td>
</tr>
<tr>
<td>Pastorini</td>
<td>Universidade Federal Da Bahia</td>
<td>Jackson Memorial-Univ. of Miami</td>
</tr>
<tr>
<td>Proksell</td>
<td>University of Miami</td>
<td>UPMC</td>
</tr>
<tr>
<td>Saithanyamurthi</td>
<td>Madurai Medical College</td>
<td>Madurai Medical College, India</td>
</tr>
<tr>
<td>Singh</td>
<td>All India</td>
<td>Thomas Jefferson</td>
</tr>
<tr>
<td>Talluri</td>
<td>Osmania Medical College</td>
<td>Metrohealth Medical Center</td>
</tr>
<tr>
<td>Zator</td>
<td>University of Pittsburgh</td>
<td>Massachusetts General</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Departing Fellow</th>
<th>Current Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Das</td>
<td>Advanced EUS Fellowship, UPMC</td>
</tr>
<tr>
<td>Ganesh</td>
<td>Faculty, UPMC</td>
</tr>
<tr>
<td>Kabani</td>
<td>Private Practice, Baltimore, MD</td>
</tr>
<tr>
<td>Mannem</td>
<td>Private Practice, Charlotteville, VA</td>
</tr>
<tr>
<td>Pastorini</td>
<td>Private Practice, Quincy, IL</td>
</tr>
<tr>
<td>Saithanyamurthi</td>
<td>Returned to India to practice</td>
</tr>
<tr>
<td>Talluri</td>
<td>Private Practice, Phoenix, AZ</td>
</tr>
</tbody>
</table>

**Fellow Abstracts**


[Click B](http://www.dom.pitt.edu/gi), Jiang J, Anderson A, Koutroubakis IE, Regueiro M, Chang CC, Binion DG. Can We Phenotype IBD Patients Based on Financial Charges Over Time? Trajectory Modeling of Healthcare Utilization in a Large, Prospective IBD Cohort. Department of Medicine Research Day, UPMC, Pittsburgh, PA, May 2016


Gluskin AB, Keswani RN, Johnston ER, Gregory DL, Cryus R, and R Yadlapai. The Nursing Bowel Preparation Assessment Tool is a Reliable and Accurate Inpatient Colonoscopy Decision Support Tool. Accepted Digestive Disease Week, May 21, 2016

Yadlapati R, Gluskin AB, Gregory DL, Johnston ER, Ciolino JD, and RN Keswani. Black Patients Are at a Higher Risk for Inadequate Inpatient Bowel Preparation. Accepted Digestive Disease Week, May 21, 2016


Machicado JD, Gougol A, Yadav D, Papachristou G. Factors Associated with Impaired Health-Related Quality of Life 3 Months after Acute Pancreatitis: A Prospective Cohort Study. Pennsylvania Society of Gastroenterology meeting, Lancaster, PA, September 2015


Vasquez-Rios G, Machicado JD, Ticse R, Marcos LA, Tagle M. Stress and a Sedentary Lifestyle Are Associated With Rising Rates of Irritable Bowel Syndrome in Medical Students: a Cross-Sectional Study. Annual meeting of the American College of Gastroenterology, Honolulu, HI, October 2015

Seth N, Machicado JD, Regueiro M, Swoger JM, Hashash JG, Schwartz M, Baidoo L, Barrie A, Szigethy E, Dunn MA, Rahim S, Ramos-Rivers C, Binion DG Quality of Life after Permanent Ileostomy in IBD Patients: A 5-Year Prospective Cohort. Annual meeting of the American College of Gastroenterology, Honolulu, HI, October 2015

Machicado JD, Gougol A, Stello K, Owens G, Yadav D, Slivka A, Whitcomb DC, Papachristou G. Quality Of Life Is Significantly Impaired Following an Attack of Acute Pancreatitis: A Prospective Study. Accepted as poster of distinction at Digestive Disease Week meeting, San Diego, CA, May 2016

**Fellow Awards and Honors**

Desai S, Rocky Mountain Endoscopy Course, Grant, 2015-2016

Johnston ER, ASGE Diversity Award for poster, DDW 2016

Kabbani T, Leadership2Leadership Fellows Travel Grant, 2015-2016

**Fellow Presentations**

Morariu EM, Chasens E, Strollo PJ, Korytkowski MT. Effect of Continuous Positive Airway Pressure (CPAP) on

Cherfane C. Is monocytosis a biomarker of severity in inflammatory bowel disease? Analysis of a 6 year, prospective natural history registry. Digestive Disease Week, May 2016


**Fellow Publications**


CLINICAL CARE

Divisional Physician Productivity Improvement

The Digestive Disorders Center (DDC), located in UPMC Presbyterian, is the hub of outpatient gastroenterology care, while the Center for Liver Disease (CLD) in Kaufmann is the outpatient clinic for liver disease care. (Statistics below include all clinical services within the Division)

The Division excels in excellent clinical care among all aspects of gastrointestinal and hepatology patient care. Additionally, the Division’s Pancreas & Biliary Center and Inflammatory Bowel Disease Center are among the largest GI clinical subspecialty care teams operating in the U.S. The research and clinical productivity from these two GI subspecialty areas provide outstanding support and notoriety for the Division and department. Additionally, Center for Liver Diseases (CLD) collaborations with the Thomas E. Starzl Transplantation Institute (STI) and the Liver Pancreas Institute (LPI) have continued to expand and stabilize during the past fiscal year. The Women’s Center for Digestive Health at Magee-Womens Hospital of UPMC includes full outpatient evaluations, inpatient consultations and clinical research protocols and is a Division hub for biomedical infusions. The Division’s presence at the Pittsburgh VA Health System on University Drive remains well-staffed and progressive with active research and clinical support.

Clinical productivity was augmented by the following major clinical announcements in FY16:

- **Total Care-IBD**: Led by Miguel Regueiro MD and Eva Szigethy MD PhD in collaboration with the UPMC Health Plan, Total Care-IBD is among the first subspecialty medical home programs in the nation and is the first known medical home initiative for Inflammatory Bowel Disease (IBD) patient care. This major three-year initiative started in April 2015 with goals to improve patient care and reduce treatment costs for this chronically ill patient population. Total Care-IBD patients have seamless access to a neighborhood of IBD team members including a social worker, nurse practitioner and dietician in addition to their IBD subspecialty gastroenterologist. This targeted coordination of care has been shown to lead to better medical coordination, fewer hospital visits, and an improved quality of life. To date, Total Care-IBD is on track to meet all admission and clinical care goals, leading to noted research publications as well as marketing notoriety in both print and video media.

- **Pancreas Center of Excellence (PCOE)**: Led by David Whitcomb MD PhD, this quality improvement and personalized medicine initiative started in FY14 and is both multidisciplinary and multi-institutional in nature. It is designed to address the specific requirements of academic medical centers related to the subspecialty treatment of complex pancreaticobiliary patient management. Drs. Whitcomb and Darwin Conwell MD MPH (The Ohio State University) are leading a national effort in collaboration with the National Pancreas Foundation (NPF) to develop standards for academic pancreatic centers of excellence (APCOE) and to address lack of PQRS measures and potential value propositions for health systems.

<table>
<thead>
<tr>
<th>Table 1: Gastro Historical Laboratory Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category</td>
</tr>
<tr>
<td>----------</td>
</tr>
<tr>
<td>Upper GI Endoscopy</td>
</tr>
<tr>
<td>Colonoscopy</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td>TOTAL VOLUME</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 2: Gastro Historical Clinic Visit Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category</td>
</tr>
<tr>
<td>----------</td>
</tr>
<tr>
<td>New</td>
</tr>
<tr>
<td>Return</td>
</tr>
<tr>
<td>Office Consult</td>
</tr>
<tr>
<td>TOTAL VOLUME</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 3: Gastro Historical Inpatient Consults</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category</td>
</tr>
<tr>
<td>----------</td>
</tr>
<tr>
<td>New Consults</td>
</tr>
<tr>
<td>Return</td>
</tr>
<tr>
<td>TOTAL VOLUME</td>
</tr>
</tbody>
</table>
• **Celiac Disease Center**: Led by Marc Schwartz MD, the Celiac Disease Center provides medical, dietary, and psychosocial support for celiac disease patients.

• **Visceral Inflammation and Pain (VIP) Center**: Led by Eva Szigethy MD PhD, the VIP Center was initiated for adult IBD psychosocial care in FY12. In FY15, the VIP Center expanded its programming to include all adult GI patients. The VIP Center cares for patients with pain and coping issues related to their gastrointestinal diseases.

• **GREAT (Genomic Resources to Enhance Available Therapies) Study**: Led by David Whitcomb MD PhD, this personalized medicine project aligns clinical database information to address research goals in “real time.”

The following faculty members departed or changed roles in the Division during FY16:

• David Whitcomb MD PhD, professor of medicine, cell biology and physiology and human genetics, stepped down as Division chief. Dr. Whitcomb will remain on faculty with the Division as a full professor.

• Robert Schoen MD MPH, professor of medicine and epidemiology, accepted the interim Division chief position.

• Elizabeth Blaney MD, clinical assistant professor of medicine, departed to join the faculty of Washington University in St. Louis.

• Vinod Rustgi MD MBA, visiting professor of medicine, departed the faculty to accept a faculty position with Rutgers University.

• Helene Bender MD departed the faculty due to retirement.

• Klaus Bielefeldt MD PhD departed the faculty to pursue a faculty position at the University of Utah.

• Leonard Baidoo, MD departed to join the faculty of Northwestern U. to be the clinical chief of their IBD program.

**Telemedicine**

The Division has expanded the gastroenterology patient market by offering telemedicine services in the following subspecialties:

• IBD by Arthur Barrie MD PhD at UPMC Northwest
• Inflammatory Bowel Disease (IBD) by Jason Swoger MD MPH at UPMC Bedford
• Motility Diseases by Klaus Bielefeldt MD PhD at UPMC Bedford
• Psychosocial Therapy by Eva Szigethy MD PhD throughout the UPMC service area.
Clinic Locations

Central Locations

- Digestive Disorders Center (DDC) - Primary Patient Center
  UPMC Presbyterian Hospital, 200 Lothrop Street, 3rd Floor, Pittsburgh, PA 15213, USA

- Center for Women's Digestive Health at Magee-Womens Hospital of UPMC
  Magee-Womens Hospital of UPMC, 300 Halket Street, Pittsburgh, PA 15213, USA

- Division of Gastroenterology, Hepatology, and Nutrition at UPMC Shadyside
  Shadyside Medical Building, 5200 Centre Avenue, Suite 409, Shadyside, PA 15232, USA

- Division of Gastroenterology - Visceral Inflammation and Pain Center
  Medical Arts Building, 3708 Fifth Avenue, Suite 401, Pittsburgh, PA 15213, USA

East Locations

- Center for Liver Diseases (CLD) at UPMC Altoona
  1516 9th Avenue, Health Suite First Floor, Altoona, PA 16602, USA

- Center for Liver Diseases (CLD) at McKeesport
  500 Hospital Way, Painter Building, Suite 401, McKeesport, PA 15132, USA

- UPMC Gastroenterology at UPMC Monroeville
  125 Daugherty Drive, Suite 200, Monroeville, PA 15146, USA

- Center for Liver Diseases (CLD) at Monroeville
  125 Daugherty Drive, Suite 200, Monroeville, PA 15146, USA

- UPMC Gastroenterology-McKeesport, Sudhir K. Narla, MD
  500 Hospital Way, Painter Building, Suite 401, McKeesport, PA 15132, USA
North and South Locations

Center for Liver Diseases at Butler
104 Technology Drive, Suite 202, Butler, PA 16001, USA

Center for Liver Diseases at UPMC Passavant
North Hills Passavant, 9100 Babcock Boulevard, Basement Level, Pittsburgh, PA 15237, USA

UPMC Gastroenterology at UPMC Horizon
UPMC Horizon, 110 North Main Street, Greenville, PA 16125, USA

Center for Liver Diseases at West Mifflin
1907 Lebanon Church Road, Suite 201, Pittsburgh, PA 15122, USA

UPMC Gastroenterology, South Hills
1300 Oxford Drive, Suite 1-D, Bethel Park, PA 15102, USA

UPMC Gastroenterology at UPMC Horizon, Kirk Works, MD
UPMC Horizon, 125 North Main Street, Suite 102, Greenville, PA 16125, USA

http://www.dom.pitt.edu/gi
CLINICAL QUALITY IMPROVEMENT INITIATIVES

The safety and quality of patient care is an utmost priority for the Division. Related quality improvement projects occurring throughout FY16 include:

- **Clinical Pathway Development:**
  - Dr. Chopra is leading clinical pathway development for hepatitis C.
  - Dr. Schoen and Dr. Slivka are leading clinical pathway development for the management of GI bleeding.
- Dr. Chopra also chairs GI’s Clinical Operations Working Group to enhance Division outreach with community physicians, improve physician patients, and related clinical opportunities.
- Dr. Bielefeldt is working in collaboration with the Division of Pulmonary Medicine to assess the current diagnostic approach to gastroesophageal reflux in patients undergoing transplantation. Initial data suggest that acute cellular rejections and graft-patient survival are not significantly affected by reflux, while surgical reflux management has a high complication rate and may adversely influence outcomes.
- Dr. Binion is exploring a number of quality improvement initiatives including prevention of central line associated blood stream infections (CLABSI) in patients with home parenteral nutrition in collaboration with the UPMC Safety Administration and UPMC Chartwell Home Infusion Pharmacy. He is working on a TPN Registry to track clinical trajectories in consented patients using home TPN. Regarding IBD research, he is studying the use of metadata to identify high risk patients for the development of dysplasia and cancer in IBD as well as treatment and monitoring of vitamin D deficiency in IBD patients.
- Dr. Brand (PI) and Dr. Fasanella (co-investigator) are partnering on a U01 to explore the validation of biomarkers for early diagnosis and risk prediction of pancreatic neoplasms.
- Michael Dunn MD is leading a consensus initiative with STI to convert post-liver-transplant standard immunosuppression from primary reliance on tacrolimus to combined everolimus/low-dose tacrolimus to avoid the kidney failure that affects up to half of all liver recipients.
- Charles Horn PhD is collaborating with Case Western Reserve University on nausea/vomiting research.
- Dr. Jonassaint has accepted the service position of co-director of Transplant Quality and will reinstitute Liver Morbidity & Mortality conferences.
- Dr. Malik is conducting a quality improvement project on the use of pigtail catheters and incidence of peritonitis at the CLD.
- Dr. Swoger leads the QI Committee for the GI Fellowship Program. This committee meets quarterly to discuss patient care and quality improvement related to GI fellows. Dr. Swoger mentors GI fellows related to their QI projects.
- Dr. Whitcomb is leading the GREAT Study development, as is described in the research section of this FY15 annual report.
FACULTY

Faculty in Core Divisions
Fiscal Year 2014-2016

<table>
<thead>
<tr>
<th>Division</th>
<th>FY 2003 (Base Year)</th>
<th>FY 2014</th>
<th>FY 2015</th>
<th>FY 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gastroenterology</td>
<td>29</td>
<td>53</td>
<td>52</td>
<td>50</td>
</tr>
</tbody>
</table>

Note: Includes University of Pittsburgh full-time faculty and volunteer faculty who have a UPP appointment and excludes research associates, adjunct faculty and emeritus faculty.

Current Gastroenterology, Hepatology & Nutrition Faculty

Full-Time Faculty

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Department of Medicine</th>
<th><a href="http://www.dom.pitt.edu/gi">http://www.dom.pitt.edu/gi</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Abo R. MD</td>
<td>Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Al Hashash Jana G. MD</td>
<td>Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baidoo Leonard K. MD</td>
<td>Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barrie Arthur M. MD, PhD</td>
<td>Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bauer Anthony J. PhD</td>
<td>Adjunct Associate Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Behari Jaideep MD</td>
<td>Associate Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bielefeldt Klaus MD, PhD</td>
<td>Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Binion David G. MD</td>
<td>Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brand Randall E. MD</td>
<td>Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chennat Jennifer S. MD</td>
<td>Associate Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chopra Kapil B. MD</td>
<td>Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duerr Richard H. MD</td>
<td>Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dunn Michael A. MD</td>
<td>Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eagon Patricia K. PhD</td>
<td>Associate Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fasanella Kenneth E. MD</td>
<td>Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faust Alison J. MD</td>
<td>Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fnu Shikhar PhD</td>
<td>Research Associate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greer Julia B. MD</td>
<td>Research Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Horn Charles C. PhD</td>
<td>Associate Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jonassaint Naudia L. MD</td>
<td>Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Khalid Asif MD</td>
<td>Associate Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Koutroumpakis Ioannis MD</td>
<td>Adjunct Associate Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kuzmishin Janet H. MD</td>
<td>Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Levinthal David J. MD, PhD</td>
<td>Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liu Yang PhD</td>
<td>Associate Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>McGee James B. MD</td>
<td>Associate Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>McGowan Ian M. MD</td>
<td>Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>McGrath Kevin M. MD</td>
<td>Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moore Beverly A. PhD</td>
<td>Adjunct Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OKeefe Stephen MD</td>
<td>Visiting Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Papachristou Georgios I. MD</td>
<td>Associate Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rabinovitz Mordechai MD</td>
<td>Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rachakonda Vikrant P MD</td>
<td>Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regueiro Miguel D. MD</td>
<td>Professor of Medicine</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Rustgi  Vinod  K.  MD  Visiting Professor of Medicine
Schoen  Robert  E.  MD  Professor of Medicine
Schwartz  Marc  B.  MD  Assistant Professor of Medicine
Sekas  Gail  MD, PhD  Assistant Professor of Medicine
Shaikh  Obaid Shakil  MD  Professor of Medicine
Slikha  Adam  MD, PhD  Professor of Medicine
Swoger  Jason  M.  MD  Assistant Professor of Medicine
Whitcomb  David  C.  MD, PhD  Professor of Medicine
Xu  Jianquan  PhD  Research Associate
Yadav  Dhiraj  MD  Associate Professor of Medicine

Affiliated Faculty with UPP Appointments
Arnold  George  L.  MD  Clinical Professor of Medicine
Bender  Helene  L.  MD  Clinical Assistant Professor of Medicine
Blaney  Elizabeth  J  MD  Clinical Assistant Professor of Medicine
Dubner  Howard  M.  MD  Clinical Associate Professor of Medicine
Francis  Fadi  F.  MD  Clinical Assistant Professor of Medicine
Gulati  Christine  L.  MD  Clinical Assistant Professor of Medicine
Malik  Shahid  M.  MD  Clinical Assistant Professor of Medicine
Narla  Sudhir  K.  MD  Clinical Assistant Professor of Medicine
Sarkaria  Savreet  MD  Visiting Clinical Associate Professor of Medicine
Weinberg  Lee  M.  MD  Clinical Assistant Professor of Medicine
Works  Kirk  L.  MD  Clinical Assistant Professor of Medicine

Affiliated Faculty without UPP Appointments
Amin  Shirish  A.  MD  Clinical Assistant Professor of Medicine
Appasamy  Ragunath  MD  Clinical Associate Professor of Medicine
Ayasso  M.  Samir  MD  Clinical Associate Professor of Medicine
Cho  Su Min  MD  Clinical Instructor in Medicine
Craig  Wendy  M.  DO  Clinical Instructor in Medicine
Fili  Daniela  MD  Clinical Instructor in Medicine
Ismail-Beigi  Farhad  MD  Clinical Professor of Medicine
Kelly  Thomas  J.  MD  Clinical Assistant Professor of Medicine
Kreiss  Christianna  M.  MD  Clinical Assistant Professor of Medicine
Lipsitz  H.  David  MD  Clinical Instructor in Medicine
Musahl  Tina  MD  Clinical Assistant Professor of Medicine
Petridis  Ioannis  MD  Clinical Instructor in Medicine
Pietrosi  Giada  MD  Clinical Assistant Professor of Medicine
Pusateri  Joseph  P.  MD  Clinical Assistant Professor of Medicine
Sekas  Gail  MD  Clinical Assistant Professor of Medicine
Trellis  Dan  R.  MD  Clinical Assistant Professor of Medicine
Wood  John  M.  MD  Clinical Assistant Professor of Medicine

New Faculty Hires
Last Name  First Name  MI  Degree  Primary Title  Division  Previous Position
Rachakonda  Vikrant  P.  MD  Assistant Professor of Medicine  Gastroenterology  Transplant Hepatology Fellow, UPMC
## POST DOCS

### Current Post Docs in FY 2015-2016

<table>
<thead>
<tr>
<th>Employee Last Name</th>
<th>Employee First Name</th>
<th>Degree Code</th>
<th>Current Title</th>
<th>Summary of activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evans</td>
<td>Anna C.</td>
<td>MD</td>
<td>Post doc scholar</td>
<td>Dr. Evans studies Acute Pancreatitis, Genetic Pancreatitis Syndromes, and Pancreatic Malignancies. By gathering data on eligible patients she works to define the relationship between Acute Pancreatitis, Chronic Pancreatitis, Recurrent Pancreatitis, and its risk factors, both individual and in concert with one another. Her work also includes evaluation of genetic variances between patients that make them more susceptible to these complex disorders. Dr. Evans works with the Genomic Resources for Enhancing Available Therapies (GREAT) study to identify specific genetic abnormalities that correlate with phenotypic syndromes in complex patients.</td>
</tr>
<tr>
<td>Ma</td>
<td>Hongqiang</td>
<td>PhD</td>
<td>Post doc associate</td>
<td>Dr. Ma investigates advanced optical imaging methods and data analysis algorithms for super-resolution microscopy. He has developed a fast and accurate localization algorithm for astigmatism-based 3D localization microscopy, a marker-assisted 3D nanometer drift correction method and a defocusing based 3D super-resolution imaging methods. He also develops high-throughput super-resolution microscopy and light-sheet super-resolution microscopy for deep tissue. (Mentor: Y. Liu, PhD)</td>
</tr>
</tbody>
</table>

### Terminating Post Docs in FY 2015-2016

<table>
<thead>
<tr>
<th>Employee Last Name</th>
<th>Employee First Name</th>
<th>Degree Code</th>
<th>Current Title</th>
<th>Summary of activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Makadia (Patel)</td>
<td>Payal</td>
<td>MD</td>
<td>Post doc scholar</td>
<td>Communication Between Colon and Peripheral Nervous System Dr. Patel is a pediatric gastroenterology fellow focused her second fellowship year, during which she will investigate markers for intestinal pain as well as intestinal pain pathways, since this pain relates to IBS and inflammation. (Mentor: B. Davis, PhD)</td>
</tr>
<tr>
<td>Pham</td>
<td>Hoa</td>
<td>PhD</td>
<td>Post doc associate</td>
<td>Novel Optical Imaging Systems Dr. Pham is working to develop the second generation of the spatial-domain low-coherence quantitative phase microscopy (SLQPM). This optical imaging system provides a high-throughput method to assess the 3D nuclear architecture of clinically obtained unstained tissue and cell samples at the nanoscale sensitivity level. He also developed a transmission diffraction phase microscopy (DPM) using an acousto-optic tunable filter which allows quantitative measurement of unstained tissue and cell sample in transmission mode with nanoscale sensitivity. He is currently studying different clinical samples using the two systems, and a manuscript is in preparation. (Mentor: Y. Liu, PhD)</td>
</tr>
</tbody>
</table>

Department of Medicine http://www.dom.pitt.edu/gi
Xu Jianquan PhD Post doc associate

<table>
<thead>
<tr>
<th>Xu Jianquan</th>
<th>PhD</th>
<th>Post doc associate</th>
</tr>
</thead>
</table>

Project: “Super-Resolution Imaging of Nucleosome Organization in Breast Cancer Progression”

Dr. Xu has been working on super-resolution imaging of nanoscale nuclear architecture in cancer progression that specifically focuses on the spatial arrangement of chromatin and other nuclear components on nanoscale dimension and understands the relationship between nuclear nanostructure, transcription activities and cancer phenotype. (Mentor: Y. Liu, PhD)
High Impact Publications


Most patients with Crohn’s disease (CD) eventually require an intestinal resection. However, CD frequently recurs after resection. We performed a randomized trial to compare the ability of infliximab vs placebo to prevent CD recurrence. We evaluated 297 patients worldwide. A smaller proportion of patients in the infliximab group had a clinical recurrence, but this difference was not statistically significant (12.9% vs 20.0%; absolute risk reduction [ARR] with infliximab, 7.1%; 95% confidence interval: -1.3% to 15.5%; P = .097). A significantly smaller proportion of patients in the infliximab group had endoscopic recurrence compared with the placebo group (30.6% vs 60.0%; ARR with infliximab, 29.4%; 95% confidence interval: 18.6% to 40.2%; P < .001). Patients previously treated with anti-tumor necrosis factor agents or those with more than 1 resection were at greater risk for clinical recurrence. Thus, infliximab is not superior to placebo in preventing clinical recurrence after CD-related resection. However, infliximab does reduce endoscopic recurrence.


Little is known about the change in risk conferred by family history of colorectal cancer (CRC) as a person ages. We evaluated the effect of family history on CRC incidence and mortality after 55 years of age, when the risk of early onset cancer had passed. We collected data from among 144,768 participants in the PLCO trial. A detailed family history of colorectal cancer was obtained at enrollment, and subjects were followed for CRC incidence and mortality for up to 13 years. 14,961 subjects (10.3%) reported a family of CRC. A family history of CRC was associated with an increased risk of CRC incidence (hazard ratio [HR], 1.30; 95% confidence interval [CI], 1.10-1.50; P<.0001) and increased mortality (HR, 1.31; 95% CI, 1.02-1.69; P = .03). Subjects with 1 first degree relative (FDR) with CRC (n = 238; HR, 1.23; 95% CI, 1.07-1.42) or ≥2 FDRs with CRC (n = 35; HR, 2.04; 95% CI, 1.44-2.86) were at increased risk for incident CRC. However, among individuals with 1 FDR with CRC, there were no differences in risk based on age at diagnosis in the FDR. After 55 years of age, subjects with 1 FDR with CRC had only a modest increase in risk for CRC incidence and death; age of onset in the FDR was not significantly associated with risk. Individuals with ≥2 FDRs with CRC had continued increased risk in older age. Guidelines for subjects with a family history of CRC should be modified to align CRC testing to risk.


Antiretroviral medications that are used as prophylaxis can prevent acquisition of human immunodeficiency virus type 1 (HIV-1) infection. However, in clinical trials among African women, the incidence of HIV-1 infection was not reduced, probably because of low adherence. Longer-acting methods of drug delivery, such as vaginal rings, may simplify use of antiretroviral medications and provide HIV-1 protection. We conducted a phase 3, randomized, double-blind, placebo-controlled trial of a monthly vaginal ring containing dapivirine, a non-nucleoside HIV-1
reverse-transcriptase inhibitor, involving women between the ages of 18 and 45 years in Malawi, South Africa, Uganda, and Zimbabwe. Among the 2,629 women who were enrolled, 168 HIV-1 infections occurred: 71 in the dapivirine group and 97 in the placebo group (incidence, 3.3 and 4.5 per 100 person-years, respectively). The incidence of HIV-1 infection in the dapivirine group was lower by 27% (95% confidence interval [CI], 1 to 46; \( P=0.05 \)) than that in the placebo group. In an analysis that excluded data from two sites that had reduced rates of retention and adherence, the incidence of HIV-1 infection in the dapivirine group was lower by 37% (95% CI, 12 to 56; \( P=0.007 \)) than that in the placebo group. In a post hoc analysis, higher rates of HIV-1 protection were observed among women over the age of 21 years (56%; 95% CI, 31 to 71; \( P<0.001 \)) but not among those 21 years of age or younger (-27%; 95% CI, -133 to 31; \( P=0.45 \)), a difference that was correlated with reduced adherence. The rates of adverse medical events and antiretroviral resistance among women who acquired HIV-1 infection were similar in the two groups. A monthly vaginal ring containing dapivirine reduced the risk of HIV-1 infection among African women, with increased efficacy in subgroups with evidence of increased adherence.

**Peer-Reviewed Publications: 2014, 2015, 2016**


Chao DT, Shah NH, Zeh HJ 3rd, Bahary N, Whitcomb DC, Brand RE. Increased Serum Insulin Exposure Does Not Affect Age or Stage of Pancreatic Adenocarcinoma Diagnosis in Patients With Diabetes Mellitus. Pancreas. 2016 Feb;45(2):228-33.


Patients with Elevated C-reactive Protein Are at Risk for Subsequent Hospitalization. Inflamm Bowel Dis. 2015 Oct;21(10):2254-61.


Govani S, Waljee AK, Kocher KE, Swoger JM, Saul M, Higgins, PDR. Validation of a tool predicting important findings
on computed tomography among Crohn's disease patients. Unit Euro Gastro J. In press.


Matarese LE, Jeppesen PB, **O'Keefe SJ**. Short bowel syndrome in adults: the need for an interdisciplinary approach and coordinated care. JPEN J Parenter Enteral Nutr. 2014 May;38(1 Suppl):60S-64S.


Pinsky PF, Schoen RE. Colorectal cancer incidence by age among patients undergoing surveillance colonoscopy. JAMA Intern Med. 2015 May 1;175(5):858-60.


Posel N, **McGee JB**, Fleiszer DM. Twelve tips to support the development of clinical reasoning skills using virtual patient cases. Med Teach. 2015 Sep;37(9):813-8.


http://www.dom.pitt.edu/gi


Swoger JM, Regueiro M. Stopping, continuing, or restarting immunomodulators and biologics when an infection or malignancy develops. Inflamm Bowel Dis. 2014 May; 20(5):926-35.


The Division of General Internal Medicine (DGIM) continues its success in clinical care, research, teaching, and administration. The inpatient clinical activities have expanded in volume and outpatient services have increased. The Institute for Clinical Research Education (ICRE) has grown substantially and is the organization that supports the Clinical and Translational Science Institute (CTSI), serving as a resource for medical students, residents, fellows, and junior faculty members throughout the six Schools of the Health Sciences at the University of Pittsburgh. The DGIM continues to receive excellent funding from the National Institutes of Health (NIH).

RESEARCH

The DGIM has 37 research faculty members (22 MDs and 15 PhDs) who devote the majority of their efforts to research. The department has six current career development awards, including KL2, K12, and VA Career Development Awards. More than 50% of the DGIM’s research budget is from external funding. Faculty members are well-funded, largely from NIH, the Agency for Healthcare Research and Quality, the VA, the pharmaceutical industry, and private foundations. This year, more than 31 grant proposals were submitted.

The DGIM’s major research foci include studies on comparative effectiveness and quality, women’s health, prevention, health care disparities, mental health services, prevention, cost effectiveness, decision making, and substance abuse. Research education is also a major part of the DGIM’s activities and is executed through the ICRE. Much of the research is carried out through the Center for Research on Health Care (CRHC) and the Center for Health Equity Research and Promotion (CHERP). These centers provide a mechanism for interdisciplinary collaboration and research with faculty members throughout the University of Pittsburgh and with members of the RAND–University of Pittsburgh Health Institute (RUPHI).

The CRHC Data Center, under the direction of Doris Rubio PhD, greatly facilitates the conduct of research and supports investigators from the entire institution. The Data Center brings together a team of experts, along with a data management group, to oversee and supervise the team. Statisticians are involved in all phases of the studies, from
pre-award (conducting power analyses and consulting on the methodology) to post-award (running statistical applications and consulting with principal investigators to interpret the findings). The Data Center serves as the CTSI's evaluation core and supports the education training and career development core.

**New Research Initiatives and Ongoing/Planned Collaborations**

The Clinical Data Research Network is a major program funded through the Patient-Centered Outcomes Research Institute (PCORI) to develop multi-institutional databases for research. We are collaborating with Johns Hopkins University, Temple University, and Penn State University. The program will have a major impact on our capacity to conduct patient-centered outcomes research. The program is led by Rachel Hess MD MS, and co-led in Pittsburgh by Wishwa Kapoor MD MPH.

The PCORI K12 is a new career development program to train junior faculty from the Schools of the Health Sciences. The program was conceived in FY14 and is funded. Scholars from multiple disciplines are selected and will begin their career development and research in FY15.

The Section of Treatment, Research, and Education in Addiction Medicine (STREAM), led by Kevin Kraemer MD MSc, seeks to build programs and human capital at the University of Pittsburgh in this area. STREAM leverages existing substance use disorder research, training, and clinical care programs at the VA Pittsburgh Healthcare System, UPMC, and the University of Pittsburgh. This research program conducts studies on approaches to substance use disorders in non-specialty settings, fosters research collaborations across disciplines, and endeavors to gain program project funding.

The Center for Research on Media, Technology, and Health (CRMTH), led by Brian Primack MD PhD, conducts research investigating associations between media messages, technological innovations, and health outcomes. Media messages include social media, internet, television, films, music, video games, and advertisements of all types. Health outcomes related to substance use, mental health, sexual behavior, violence, and communications between patients and health-care providers are of particular interest. The goal of the CRMTH is to develop, implement, and evaluate interventions related to media messages and technological advances to improve health outcomes. The Center also aims to provide educational experiences related to the research and intervention missions to trainees and students throughout the University of Pittsburgh.

The Center for Women's Health Research and Innovation (CWHRI), led by Sonya Borerro MD MS, consists of an interdisciplinary group of health services researchers dedicated to improving women's health through innovative, high-quality, health services research. The research encompasses all aspects of women's health, with particular attention to vulnerable populations, women in the military, racial disparities, and sex- and gender-based differences in health and disease. CWHRI seeks to foster collaboration across academic communities to advance the field of women's health and to provide mentorship and training opportunities to students, residents, fellows, and junior faculty committed to women's health services research.

The Section on Biomarkers and Prediction Modeling (SBPM), led by Douglas Landsittel PhD, was formed to address the growing need for statistical collaboration and methods development in the areas of biomarker studies, associated prognostic and predictive models, causal inference, related applications specific to patient-centered comparative effectiveness research (PC-CER), heterogeneity of treatments, and personalized medicine. Studies conducted within the SBPM focus on methodology for causal inference and training in PC-CER to build expertise and infrastructure within Minority-Serving Institutions. SBPM collaborates with the Department of Medicine, the Graduate School of Public Health, the Comparative Effectiveness Research Center, the Starzl Transplant Institute, and other research groups across the University.

http://www.dom.pitt.edu/dgim
Faculty Research Interests

Kaleab Abebe PhD
Dr. Abebe's collaborative research focuses on design, conduct, and analysis of multicenter, randomized, controlled trials (RCTs), namely in polycystic kidney disease (PKD). He is the Data Coordinating Center (DCC) principal investigator for the HALT-PKD Network, comprising two, 7-site RCTs evaluating the impact of hypertensive medications and blood pressure control on PKD. He leads the DCC for an early phase RCT assessing safety and tolerability of metformin in PKD.

Dr. Abebe also oversees statistical cores of several comparative-effectiveness studies for gestational diabetes, collaborative care, HIV, and adolescent medicine. In addition, he is the founding director of the Center for Clinical Trials & Data Coordination, created to standardize the design, conduct, and analysis of RCTs.

Robert Arnold MD
Dr. Arnold's research activities focus on improving doctor-patient communication regarding palliative care and changing the culture of doctor-patient communication.

Amber Barnato MD MPH MS
Dr. Barnato's research focuses on the provider and organizational determinants of variation in Medicare beneficiaries' use of intensive care services at the end of life and on racial and socioeconomic disparities in end-of-life health services use.

Sonya Borrero MD MS
Dr. Borrero's work strives to advance reproductive health equity. She is interested in understanding multilevel influences on contraceptive and pregnancy decision making in vulnerable populations to identify targets for interventions that will optimize reproductive health care provision and decrease women's risk for undesired pregnancy. As a clinician and researcher at VA Pittsburgh, Dr. Borrero's research has also focused on VA reproductive health care to help inform efforts to ensure high-quality, comprehensive care for the growing number of women veterans. Her research has been supported by grants from NIH, VA, and private foundations.

Thuy Bui MD
Dr. Bui's research is on the global health workforce and training and interventions to address social determinants of health.

Peter Bulova MD
Dr. Bulova's research interests focus on Down syndrome and Alzheimer's disease, improving the quality of life for adults with special needs, and Improving the quality of outpatient medical education.

Gregory Bump MD
Dr. Bump's research focuses on medical education of patient safety and quality improvement.

Raquel Buranosky MD MPH
Dr. Buranosky's research is in the areas of domestic violence screening, women's health, medical education, and curriculum development. Along with publishing and mentoring others in this area, she also is a member of the Medical Education Research Committee for the Division of General Internal Medicine, which reviews and approves research proposals for funding. She has been a Schweitzer fellow mentor to many medical students in the area of underserved women's health.
(Joyce) Chung-Chou Chang PhD
Dr. Chang has a wide range of interests in theoretical and applied statistics, including time-to-event (survival) and longitudinal data analysis, missing data (competing risks and informative dropout), causal effect modeling (propensity score and marginal structural modeling), design and analysis of observational studies and clinical trials, design and analysis of studies of biomarkers in risk prediction, dynamic prediction, and machine learning techniques. She has served as the lead statistician on numerous research projects and has been the consulting statistician for several K-award projects. In these roles, she has helped investigators throughout the University develop new research protocols and data analysis plans for a wide range of biomedical studies and has overseen the studies’ data management and analyses.

Rather than limiting her role to applying traditional statistical methodology to projects, Dr. Chang actively encourages and promotes the use of the most up-to-date appropriate statistical methods. She has applied these methods to a wide range of investigations, including research on aging, HIV/AIDS and other infectious diseases, heart diseases, liver transplantation, health services research, and acute illness.

Julie Childers MD MS
Dr. Childers focuses her research efforts on teaching communication and opioid prescribing for patients with a history of addiction.

Molly Conroy MD MPH FACSM
Dr. Conroy joined the faculty at the University of Pittsburgh in 2004 after completing residency and a General Internal Medicine Fellowship and MPH at Massachusetts General Hospital/Harvard School of Public Health. Since residency, her primary research interest has been cardiovascular disease (CVD) risk reduction and lifestyle change, with a focus on primary care. Her past grants include a career development award from NIH/NHLBI focused on subclinical CVD and physical activity promotion in middle-aged women. She has been PI or co-I of several clinical trials related to lifestyle change and cardiovascular disease risk reduction and has received funding from NIH, AHRQ, and PCORI for her work. Current grants include funding from AHRQ to investigate innovative technology to assist with weight maintenance in primary care settings and a grant from PCORI to study an exercise intervention to reduce fracture risk in older adults. Dr. Conroy is also the site-PI of the NIH-funded SPRINT study at the University of Pittsburgh; this large multi-site trial demonstrated the effectiveness of intensive blood pressure control in reducing CVD events in high-risk older adults compared to standard control. She is actively involved with efforts to disseminate SPRINT findings and investigate models of using technology and other innovative strategies to promote better blood pressure treatment in primary care settings. Dr. Conroy has authored more than 50 peer-reviewed articles and won numerous awards and honors for her research, including being elected as a fellow of both the American College of Sports Medicine and the American Heart Association.

Jennifer Corbelli MD MS
Dr. Corbelli has presented nationally and published work in a variety of research content areas, including systematic review, medical education research such as curriculum development and evaluation, and women’s health. In addition, she continues to actively mentor residents and fellows in their own research and education projects.

Esa Davis MD MPH FAAFP
Dr. Davis is an NIH-funded clinical researcher with a patient-oriented research program focused on obesity-related maternal and child health outcomes and in comparative effectiveness research in obesity and tobacco. Much of her work has focused on understanding the development of obesity in women. She specifically contributed to the field by investigating the perinatal, cultural, behavioral factors associated with the racial and socioeconomic disparities in obesity among women that have persisted for decades. She published a novel conceptual framework that has been highly cited to help guide the testing of hypotheses associated weight change during pregnancy and the long-term development of obesity and related disparities. Dr. Davis has contributed new analytic methods in investigating pregnancy-factors associated with the development of maternal obesity and related outcomes. She is currently the principal investigator of a NIH funded randomized controlled trial titled, “Comparison of Two Screening Strategies for
Gestational Diabetes, GDM2 Study” which examines differences in perinatal outcomes of women randomized to two screening/diagnostic strategies for gestational diabetes. She has also conducted studies that investigate the association between obesity and cardiac recovery and remodeling in women with postpartum cardiomyopathy.

Dr. Davis' research also focuses on reducing risk factors such as hypertension, obesity, smoking, as well on patient attitudes associated with cardiovascular disease. She is currently a co-investigator on three NIH/FDA-funded randomized control trials that are investigating effective strategies for treating hospitalized smokers and evaluating new nicotine standards for cigarettes.

Anna Donovan MD MS
Dr. Donovan has extensive experience presenting her work and teaching both locally and nationally. She maintains an interest in medical education research with current projects in curriculum design, implementation, and evaluation. She recently designed and evaluated a new curriculum teaching interns how to teach, which she has integrated into a longitudinal residents-as-teachers curriculum for Internal Medicine residents. Additionally, she is involved in two medical education research projects related to teaching high-value care.

Anwar Dudekula MD
Dr. Dudekula has a strong interest in gastroenterology.

D. Elnicki MD
Medical education, at both the UGME and GME levels, is the primary focus of Dr. Elnicki's scholarship. He has published on educational topics that include improving aspects of the internal medicine clerkship, early clinical exposures for medical students, assessment issues, improving the learning environment, teaching evidence-based medicine skills, providing feedback to learners, and teaching telephone medicine skills to residents. He currently is part of programs to develop curricula on pain management issues, to address issues of student mistreatment and improving residents' continuity clinics.

Kristian Feterik MD
Dr. Feterik's research interests include inpatient consultative medicine, venous thromboembolism, health information technology, and medical decision support systems.

Michael Fine MD MSc
Dr. Fine is a Professor of Medicine at the University of Pittsburgh School of Medicine and Director of the Center for Health Equity Research and Promotion (CHERP), a VA Center of Innovation in Health Services Research at the VA Pittsburgh Healthcare System. His research focuses on ways to improve the quality and equity of medical care for patients with common medical problems. As Director of CHERP, he is particularly interested in conducting research to detect, understand, and eliminate disparities in health and health care among vulnerable patient populations. His past research employed retrospective and prospective cohort designs, with extensive emphasis on assessment of patient-centered outcomes. His research has also utilized randomized clinical trial design to test the effectiveness and safety of medical practice guidelines to improve the quality and efficiency of care for patients with common medical illnesses.

Gary Fischer MD
Dr. Fischer conducts research in several areas related to quality improvement: the use of health information technology (HIT) and clinical decision support to improve quality of care; the use of patient-facing HIT tools to improve patient outcomes, including with weight loss, diabetes care, hypertension, and prevention; electronic communication between patients and health care providers; and ambulatory quality improvement.

Walid Gellad MD MPH
Dr. Gellad is an associate professor of medicine and health policy at the University of Pittsburgh, where he is co-director of the Center for Pharmaceutical Policy and Prescribing. He is a faculty member of the Pittsburgh Veterans Affairs (VA) Center for Health Equity Research and Promotion (CHERP).
Dr. Gellad's research focuses on physician prescribing practices and on policy issues affecting patients’ access and adherence to medications. He was the recipient of a career development award from the Department of Veterans Affairs to study the quality and efficiency of prescribing in the VA—and he is currently funded by the VA, NIH, CDC, and the state of Pennsylvania on multiple studies of pharmaceutical policy and prescription use. His work spans clinical areas that range from diabetes and hepatitis C to prescription drug and substance abuse. He is a former member of the Food and Drug Administration (FDA) advisory committee on nonprescription drugs and is currently an alternate member of the FDA Drug Safety Oversight Board.

Dr. Gellad is also a nationally recognized authority on improving the measurement of medication adherence. In 2015, he founded and chaired the first national conference focused on improving the science behind medication adherence measurement.

Dr. Gellad is board certified in internal medicine and completed a residency and chief residency in internal medicine at Brigham and Women's Hospital and Harvard Medical School. He sees primary care patients in the VA Pittsburgh Healthcare System and attends on the inpatient general medical service.

Daniel Giesler MD
Dr. Giesler is interested in community-acquired pneumonia.

Christine Glaser MD
Dr. Glaser's research activities focus on quality improvement in the inpatient hospice setting.

C. Good MD MPH
As the Chair of the Medical Advisory Panel for Pharmacy Benefits Management for the Department of Veterans Affairs, Dr. Good's research interests relate to the safe, effective provision of medications. He has published recently in the areas of drug safety, appropriate prescribing, conflicts of interest, and cost-effectiveness.

Adam Gordon MD MPH FACP DFASAM CMRO
Dr. Gordon is a Professor of Medicine, Professor of Clinical and Translational Science, and Advisory Dean at the University of Pittsburgh. He has a 16-year track record of conducting research on quality, equity, and efficiency of health care provision for vulnerable populations (e.g., persons with opioid use disorders, persons who are homeless, persons with hazardous alcohol use and other addiction disorders). He is a previous VA Health Services and Research Development (HSR&D) Career Awardee, and his current research foci include investigating the outcomes of and implementation of evidence-based identification, assessment, and treatment for patients with addiction disorders within primary care, primary care medical homes, and other non-specialty clinical environments. He is the Editor-in-Chief of *Substance Abuse* journal (current impact factor 2.56). In addition, he has published more than 136 peer-reviewed papers; 56 peer-reviewed abstracts; 13 books or book chapters; 13 guidelines, monographs, and letters; 55 non-peer reviewed publications; and presented/authored over 137 peer-reviewed presentations at international research conferences.

Janel Hanmer MD PhD
Dr. Hanmer's primary research focus is on health-related quality of life measurement, particularly health utility measurement. Her previous work has focused on the use of legacy measures. Are the measures comparable? What happens if modes of administration are mixed? What are population averages for these measures? She has often worked with population-based datasets, such as the Medical Expenditures Panel Survey.

Dr. Hanmer's recent work has been focused on developing a new health utility score for the Patient-Reported Outcomes Measurement Information System. This work combines item response theory and econometric theory.
In addition, Dr. Hanmer has has training in epidemiology and health services research. She has been involved in projects comparing physician and computer estimates of clinical deterioration for patients admitted to the hospital, as well as projects that evaluate how much physician estimates converge within a team.

**Reem Hanna MD**
Dr. Hanna is currently working with others in researching primary care providers' views and compliance with an online lifestyle modification intervention.

**Peggy Hasley MD MHSc**
Dr. Hasley has taken a scholarly approach to the development of medical education. She has developed evaluations of her curricula and has presented her findings locally and at national meetings in the form of posters, oral presentations, and workshops. She has received internal and foundational funding for her work. She currently serves on the Faculty and Fellows Grant Committee for the Division of General Medicine. Dr. Hasley mentors multiple residents in scholarly work, and her scholarly contributions to the primary care of transplant patients has led to two review publications and a book chapter published in the *Textbook of Organ Transplantation*.

**Leslie Hausmann PhD**
Dr. Hausmann is a social psychologist who conducts multidisciplinary research and quality improvement projects focused on identifying, understanding, and reducing disparities in health and health care for vulnerable patient populations. While much of her work has focused on issues of discrimination and bias in the healthcare setting, she also has extensive experience leading large-scale, multisite, mixed methods evaluations of the longitudinal impact of efforts to improve quality of care overall or for specific vulnerable groups.

**Brian Heist MD MSc**
Dr. Heist's research interests include Japanese medical education, clinical reasoning, and web-based education.

**Ana Inashvili MD**
Dr. Inashvili's research focuses on hospital medicine, cardiology, and rheumatology.

**Elena Jiménez Gutiérrez MD**
Dr. Jiménez Gutiérrez's current research projects focus on CMV seropositivity in HIV-negative participants of the Multicenter AIDS Cohort Study and hospital readmissions.

**Charles Jonassaint PhD**
Dr. Jonassaint's research aims to reduce health care disparities by using multimedia technology to deliver evidence-based interventions to underserved populations. The primary focus has been on patients with sickle cell disease (SCD), a condition that disproportionately affects those of African descent and is associated with significant disparities in both funding and treatment. Prior to arriving at the University of Pittsburgh, Dr. Jonassaint's research helped identify maladaptive psychological and biological stress responses that contribute to poorer health among underserved populations. He is now working with an interdisciplinary team of investigators to help address these risk factors through the development and testing of mobile health interventions. Dr. Jonassaint is currently funded through an AHRQ PCOR K12 grant to lead a program of research in sickle cell disease focused on designing cost-effective, scalable, mobile technology-delivered, stress and pain management interventions that patients can easily access on their own mobile phones or tablets. He is the co-inventor of an SCD specific self-management app called SMART: The Sickle Cell Disease Mobile Application to Record Symptoms via Technology. Testing of SMART has led to two publications and is now being used in four funded studies at three institutions.
Sarah Jones MD
Dr. Jones’s research interest include hospital medicine and quality improvement, physician communication and sign out, and inpatient discharges.

Dayakar Kancherla MD
Dr. Kancherla is interested in adult hospital medicine.

Wishwa Kapoor MD MPH
Dr. Kapoor's research is broadly focused in the areas of health services and outcomes of common medical problems, with groundbreaking work in syncope and community-acquired pneumonia (CAP). His studies have focused on improving outcomes, reducing cost, and providing high-quality care, and his work has been published in high-impact journals, including the New England Journal of Medicine, JAMA, and Circulation and Annals of Internal Medicine. His studies have transformed care delivery nationally, providing the building blocks for the evaluation and management of syncope as well as the foundation for guidelines on the condition. His work is used and quoted daily by physicians nationally and internationally.

Dr. Kapoor's contributions in CAP, funded by AHRQ under Patient Outcomes Research Team (PORT), led to assembling a team of scientists from diverse disciplines. Working as the leader of a large multicenter and multidisciplinary group, PORT redesigned the approach to the prevention, treatment, and prognosis of CAP. PORT produced more than 100 publications in major journals and books. The studies led to several large, randomized, controlled trials, directed by Dr. Michael Fine, his main collaborator and mentee on PORT, comparing different management strategies, such as inpatient versus outpatient care for low-risk patients.

As the director of three institutional K awards, he has guided the careers of nearly 100 junior faculty from diverse disciplines, moving them to independence in biomedical research. Under the ICRE, he has directly or indirectly impacted the early careers of about 1,000 trainees, supporting them to become investigators and leaders in biomedical research.

Dio Kavalieratos PhD
Dr. Kavalieratos is a health services researcher whose work focuses on the development, evaluation, and implementation of innovative, scalable, patient-centered models of palliative care in serious cardiopulmonary illness. He has expertise in qualitative methods, patient-reported outcomes, and evidence synthesis. Dr. Kavalieratos received the 2013 Young Investigator Award from the American Academy of Hospice and Palliative Medicine (AAHPM), and he serves as Chair of the AAHPM’s Scientific Subcommittee. His work has been supported by the National Palliative Care Research Center (Career Development Award, 2014), AHRQ (K12, 2014), the Cystic Fibrosis Foundation (Pilot Study Grant, 2014), and NHLBI (K01, 2016).

Amar Kohli MD
Dr. Kohli’s primary research interests include consultation medicine as well as doctor-to-doctor communication.

Kevin Kraemer MD MSc
Dr. Kraemer’s research interests focus on the delivery and implementation of patient-centered strategies for the detection and early intervention of unhealthy alcohol and drug use, the application of cost-effectiveness methodology to alcohol and drug detection and treatment programs, and the comparative effectiveness of alcohol and drug addiction treatment on HIV outcomes and quality of HIV care. He serves as co-investigator and Pittsburgh Principal Investigator for the national, multi-site Veterans Aging Cohort Study (VACS) on the impact of multi-substance use and use in a prospective cohort of 9,000 HIV infected and uninfected veterans and a “virtual” cohort of all 47,000+ HIV-infected Veterans in care since 1998. He is currently the Principal Investigator of a five-year NIAAA R01 “Comparative Effectiveness of Alcohol and Drug Treatment in HIV-Infected Veterans,” which aims to compare the impact of different alcohol and illicit drug treatment approaches on the outcomes of HIV virologic control and quality of HIV care. Dr. Kraemer has extensive research-mentoring experience across the spectrum of predoctoral students to postdoctoral

Department of Medicine http://www.dom.pitt.edu/dgim
fellows to junior and mid-level faculty. He is the primary mentor to several University of Pittsburgh junior faculty, fellows, and residents. He serves as a Master Mentor in the ICRE Training Early Academic Mentors program, is co-leader for the ICRE’s annual “Mentoring Matters” half-day workshop, and teaches in the University of Pittsburgh Office for Academic Career Development’s professional development workshop series, including the session on K awards. Nationally, he has served on the AAMC Committee on Training Physicians to be Clinical-Translational Investigators.

Douglas Landsittel PhD
Dr. Landsittel has worked for the last 20 years in the areas of occupational injury and exposures, biomarkers and prognostic models, and more recently, causal inference. He is PI of three projects: a data coordinating and imaging analysis center (with KT Bae) for the NIDDK Consortium for Radiological Imaging Studies of PKD (or CRISP); a statistical methods contract from the Patient-Centered Outcomes Research Institute on developing a decision tool for observational CER; and a training and education program in patient-centered outcomes research that is being conducted in partnership with six Minority-Serving Institutions. He is also Director of the Section for Biomarkers and Prediction Modeling and Director of Biostatistics for the Starzl Transplant Institute. Dr. Landsittel is a faculty member in the Comparative Effectiveness Research Center and the Center for Research on Healthcare. He also collaborates with faculty in Rheumatology, Surgery, and Nephrology.

Bruce Ling MD MPH
Dr. Ling joined the faculty of the Division of General Internal Medicine and the Center for Research on Health Care in 1999. He received a career development award from the National Cancer Institute to assess the delivery and utilization of colorectal cancer screening and evaluate the patient-provider interaction as it relates to screening. The results of this research have led to additional funding from the National Cancer Institute and to a VA merit award for a multisite intervention trial. In addition to pursuing his own research, Dr. Ling previously served as the associate director for research in the Institute for Doctor-Patient Communication at the University of Pittsburgh. He is currently the Chair of the Institutional Review Board at the VA Pittsburgh Healthcare System.

Colleen Mayowski EdD MLIS
Dr. Colleen Mayowski has published on the use and prevalence of institution-level eportfolios for accreditation and outcomes assessment.

David McAdams MD MS SFHM FACP
Dr. McAdams' research interest include hospital quality improvement and patient safety and developing tools for billing and hospital length of stay.

Melissa McNeil MD MPH
Dr. McNeil's research interests revolve around the development and evaluation of innovations in medical education and in the care of women. She is the director of the joint VA/University of Pittsburgh Women's Health Fellowship and also serves as the Program Director for the NIH-sponsored Building Interdisciplinary Careers in Women’s Health grant, an institutional career development award for faculty members interested in developing research careers in women’s health. She has more than 50 peer-reviewed publications on diverse topics, including the evaluation of women’s health educational efforts, the impact of women’s health fellowships on career trajectory, an evaluation of the implementation of new breast cancer screening guidelines, and the evaluation of burnout in medical residents, with a particular interest on gender differences in burnout. In 2014, Dr. McNeil was named the Society of General Internal Medicine’s Distinguished Professor of Women’s Health in recognition of her wide-ranging and diverse initiatives in the field of women’s health.

Kathleen McTigue MD MPH MS
Dr. McTigue joined the University of Pittsburgh faculty in 2002. She is trained in internal medicine, preventive medicine, and public health and has joint appointments in Medicine, Epidemiology and Clinical/Translational Science. Her research interests include the prevention of chronic disease, with focuses on obesity, women’s health, and information technology. Dr. McTigue has considered both evidence-based clinical medicine and public health approaches to
escalating U.S. weight trends. She led the development, implementation, and evaluation of the first online adaptation of the Diabetes Prevention Program's lifestyle intervention. This work uses technology to bring evidence-based self-management support to primary care patients. Her work on improving the quality of patient care extends to a focus on the development of infrastructure for supporting pragmatic, patient-centered clinical research, via the PaTH Clinical Data Research Network, a member of the National Patient-Centered Clinical Research Network (PCORnet).

**Alexandra Mieczkowski MD MS**
Dr. Mieczkowski's research interests are educational, focused on trainee autonomy and wellness, and in particular, trainee financial wellness.

**Natalia Morone MD MS**
Dr. Morone is interested in research evaluating the effectiveness of mind-body and complementary interventions for chronic pain and high blood pressure, particularly mindfulness meditation. She is also interested in identifying the psychological contributors to chronic pain. For health care providers, Dr. Morone is interested in curriculum development regarding treatment of patients with chronic pain.

Dr. Morone has published more than 30 peer-reviewed articles in well-respected journals on topics such as chronic pain management and the effects of mindfulness meditation on chronic low back pain. She has been both a principal investigator and a co-investigator on research grants studying chronic pain management. Her work has been funded by the NIH.

**Muhammad Munir MD**
Along with his clinical duties, Dr. Munir is an active participant in cardiac electrophysiology research with his mentor, Dr. Samir Saba, and has published various manuscripts in the field.

**Larissa Myaskovsky PhD**
With multidisciplinary training in social psychology and clinical epidemiology and more than 20 years of experience, Dr. Myaskovsky has pursued a research career focused on bringing social and behavioral science to bear on the field of health services research. Her NIH- and VA-funded research uses a multi-method and multidisciplinary approach to identify and understand disparities in health care processes and outcomes, and to develop interventions to reduce health disparities in people with disabilities and chronic disease. She has extensive experience with the recruitment and retention of more than 2,000 minority and non-minority participants in her ongoing federally-funded longitudinal, multisite research projects aimed at understanding and reducing health care disparities in kidney transplantation. She also has conducted research on the patient, provider, and system factors related to wheelchair service delivery, and quality and equity of care in patients with spinal cord injury.

**Marie Norman PhD**
Dr. Norman’s research interests are in the Scholarship of Teaching and Learning (SoTL), an emerging area of scholarship that seeks to synthesize the interdisciplinary research on teaching and learning, apply it to course design and teaching practice, and assess it systematically and rigorously. Her research interests have included the application of learning principles to classroom practice, factors affecting faculty satisfaction and retention, online course development and delivery, and cross-cultural issues in education. Since joining the faculty, she has focused more narrowly on clinical research and medical education training, where her developing areas of research interest include assessing and improving practices in hybrid/flipped teaching, team science training, personalized learning, competency-based learning, and learning analytics.

As a cultural anthropologist, Dr. Norman is solidly committed to applied qualitative research, particularly ethnographic research, where her particular areas of interest and expertise are medical anthropology and cross-cultural issues in teaching and learning.
Dr. Norman is interested in writing and speaking about teaching and learning, and more specifically, learning research and its applications for both expert and popular audiences.

Seo Young Park PhD
Dr. Park joined the faculty in 2011 as an Assistant Professor of Medicine in the Institute for Clinical Research Education and Center for Research on Health Care Data Center. She collaborates with investigators on the development of clinical research projects. Before joining the University of Pittsburgh, she worked as a Research Associate (Assistant Professor) in the Biostatistics Lab, Department of Health Studies, at the University of Chicago. Her research interests are in disease prediction models, modern regression techniques, high-dimensional data analysis, variable selection techniques, bioinformatics, and clinical trials.

Lisa Podgurski MD
Dr. Podgurski is a clinician-educator with interests in teaching medical professionals the skills involved in high quality palliative care, including symptom management, prognostication, and communication skills required for delivering serious news, managing conflict, and advance care planning. She has served as a facilitator for intensive, practice-based communication skills training workshops following the VitalTalk model, and organized the first GynOncoTalk workshop in this model in 2016.

Ruth Preisner MD
Dr. Preisner focuses on finding the best way to employ simulation for learning procedures commonly performed by internists.

Brian Primack MD PhD
Dr. Primack has been the principal investigator on multiple federal grants from NCI, NIDA, and AHRQ (e.g., R01-CA140150, R01-DA034629, R21-HS022927, and R21-CA185767). He has also been a co-investigator on multiple NIH research projects funded by NICHD (R24-HD080194), NIAAA (R01-AA021347), NHLBI (R01-HL130388) and NIMHD (U54-GM119023-S1). The source diversity of these awards testifies to his multifaceted research interests, his penchant for collaboration, the marketability of his innovative ideas, and his passion for bridging disciplines.

Dr. Primack is broadly interested in improving interpersonal communication, health care, and health outcomes in an increasingly technological and media-driven world. This includes trying to improve the patient-provider bond, reducing mental health problems, and decreasing addiction.

Dr. Primack's work in these areas has been published in a wide variety of leading peer-reviewed journals in public health, medicine, and social science, such as American Journal of Public Health, American Journal of Preventive Medicine, Journal of the National Cancer Institute, Preventive Medicine, JAMA Pediatrics, JAMA Psychiatry, and others. This research also has been cited in leading international news sources, including, US News & World Report, the BBC, The Washington Post, and National Public Radio.

Aditi Puri MD
Dr. Puri is working on developing educational curricula on management of geriatric hip-fracture patients.

Mark Roberts MD MPP
The majority of Dr. Roberts' research is in the applications of methods from decision sciences, operations research, and management science. He conducts research both in the performance and advancement of the methodology itself, as well as the application of rigorous modeling methodology to specific health care problems. Dr. Roberts has used decision analysis to examine clinical, costs, policy, and allocation questions in liver transplantation, as well as the treatment of HIV, vaccination strategies, operative interventions, and the use of many medications. He is interested in the use of observational data analysis for causal inference, as well as in the measurement and inclusion of patient preferences into treatment decisions and the use of electronic health records for research.

http://www.dom.pitt.edu/dgim
Bruce Rollman MD MPH
Dr. Rollman’s research focuses on developing novel interventions to treat depression and anxiety disorders in non-psychiatric settings. He has been principal investigator on six NIH-funded R01 clinical trials, including the Online Treatment for Mood and Anxiety Disorders Trial that evaluated the impact of incorporating a computerized cognitive behavioral therapy program and Internet support group into a collaborative care intervention; and the Hopeful Heart Trial, which is testing the effectiveness of a “blended” collaborative care model for treating heart failure and depression simultaneously.

Dr. Rollman has also served as a co-investigator and consultant on numerous other research projects. He has published over 90 scientific papers, including first-authored papers in the New England Journal of Medicine, Journal of the American Medical Association, and Annals of Internal Medicine, and has U.S. patents for health-related inventions. Through more than 20 years of primary care practice, Dr. Rollman has become highly experienced with state-of-the-art techniques for treating mood and anxiety disorders in non-psychiatric settings, and the conduct of comparative effectiveness trials.

Doris Rubio PhD
Since joining the University in 2002, Dr. Rubio has collaborated on numerous research grants, serving in a leadership role on the majority of these projects. Her research is diverse, and her grants have been funded by multiple institutes and centers at NIH, as well as the National Research Mentoring Network.

Dr. Rubio focuses much of her current research on diversifying the workforce. She is the director of two federally funded grants that aim to help trainees from diverse backgrounds launch and sustain successful careers in the biomedical sciences. In addition, she has also investigated and published in fields that include psychometrics, structural equation modeling, quality-of-life indicators, alcoholism, and career development.

During her career, Dr. Rubio has published more than 70 peer-reviewed articles in high-impact journals. One of her publications, which highlights a model for career success that she developed in conjunction with the Research on Careers (ROC) group, has been extensively cited; the model was also adopted by the Clinical and Translational Science Award education consortium.

Yael Schenker MD MAS
Since joining the Department of Medicine in 2010, Dr. Schenker has collaborated on numerous palliative care research projects. Her primary focus is understanding and improving provision of primary palliative care in oncology. Using mixed methods, her work has uncovered barriers to receipt of specialty palliative care and led to the development and evaluation of a nurse-led primary palliative care intervention called CONNECT. Dr. Schenker has also published widely on topics including surrogate decision making, informed consent, healthcare advertising, and language barriers.

Nikhil Seth MD
Dr. Seth has taken an active role in research in the Gastroenterology Department. He has presented his work in Inflammatory Bowel Disease at the national American College of Gastroenterology and Digestive Disease Week conferences. He has also published first-author manuscript in the Journal of Pacing and Clinical Electrophysiology.

Kenneth Smith MD MS
Dr. Smith is a Professor of Medicine and Clinical and Translational Science and a core faculty member of the Center for Research on Health Care at the University of Pittsburgh. His research centers on the cost-effectiveness of common medical interventions, most notably on pneumococcal, influenza, and varicella vaccination. He has published in many other areas, including pelvic inflammatory disease, influenza management strategies, diabetes prevention and treatment, VA formulary decisions, anticoagulation and thrombotic disorder management, and hospital-physician communication. In addition, Dr. Smith is Deputy Editor of the journal Medical Decision Making.
Neal Spada MD
Dr. Spada, working under the tutelage of Dr. Weijing Sun, is currently researching the relationship between genomic instability and response to chemotherapy in patients with gastric and gastroesophageal cancer.

Carla Spagnoletti MD MS
Dr. Spagnoletti's research interest is in the field of medical education, and she focuses on patient-doctor communication, the patient experience, and professional development. In addition to leading and mentoring numerous medical education research projects, she has obtained—and has mentored other to obtain—competitive funding through divisional, institutional, and foundational sources for scholarly educational work.

Jamie Stern MD MPH

Leigh Swartz MD
Dr. Swartz has done research in palliative chemotherapy and tumor vaccines.

Galen Switzer PhD
Dr. Switzer is a leading expert in the motives and experiences of individuals who join an adult stem cell donation registry and volunteer to donate to a stranger. In collaboration with the U.S.-based National Marrow Donor Program, U.K.-based Anthony Nolan Registry, and German-based DKMS, his research group has become internationally known for producing key findings about the experiences of registry members at critical points leading to donation. These experiences include registry members' motivations for joining the registry and factors associated with opting-out of the registry after having preliminarily matched a patient in need of a transplant. Dr. Switzer has also investigated all facets of the donation experience from the donor perspective. His research group is the most prominent group currently investigating Health Related Quality of Life among HSC donors and has produced important findings about donor experiences. Finally, for more than 20 years, Dr. Switzer has developed and evaluated clinical and psychosocial research measures and compiled validated measures for research projects across multiple contexts. His research group has collected and analyzed questionnaires and interview data from more than 10,000 participants.

Gary Tabas MD
Dr. Tabas is interested in studying Bayesian virtual patient design to teach the management of diabetic ketoacidosis. He collaborates with Dmitriy Babichenko, University of Pittsburgh School of Information Science.

Winifred Teuteberg MD
Dr. Teuteberg has been the clinical expert for several research endeavors, including a randomized trial of palliative care for adult patients with cystic fibrosis. She is interested in evaluating how we can better use our existing electronic health record to leverage goals of care conversations and advance care planning documents over the continuum of care.

Brent Thiel MD
Dr. Thiel's research interest center on improving health care value through physician practices and high-value care medical education.

Holly Thomas MD MS
Dr. Thomas seeks to conduct innovative, interdisciplinary, patient-centered clinical research that will improve the health and quality of life of women as they age. In particular, she is interested in understanding the physical and psychosocial factors that contribute to sexual dysfunction in midlife and older women and using this understanding to develop behavioral treatment options for this population.
Sarah Tilstra MD MS
Dr. Tilstra has participated in several medical education research projects. Her main research interests include clinical reasoning; physician wellness, burnout and coping; curriculum development and evaluation; and the state of women in academic medicine.

Andrew Trifan MD
Dr. Trifan is currently researching the educating of housestaff and other clinical support personnel on appropriate indications for the placement of peripherally inserted central catheter lines.

Dana Tudorascu PhD
Dr. Tudorascu joined the faculty in 2011 as an Assistant Professor of Medicine and Biostatistics. She collaborates with investigators on design and analysis of clinical research projects. Her specific interests include the analysis of structural MRI, functional MRI (task/resting state/connectivity), and PET data with applications in healthy aging population and patients with Alzheimer's disease. Dr. Tudorascu is also interested in investigating and improving registration and classification methods for individuals with white-matter disease.

In addition to neuroimaging analysis, Dr. Tudorascu is also the lead statistician on two clinical trails: a PCORI trial on spinal stenosis and a weight management trial (MAINTAIN). She received an Honorable Mention in 2014 from the Aging Institute at the University of Pittsburgh for investigating the potential mechanism of resilience to brain aging.

Chandraprakash Umapathy MD
Dr. Umapathy's current research interests include readmissions and quality improvement in hospital-based medicine, natural history and long-term outcomes in pancreatic necrosis, quality of life in inflammatory bowel disease patients, natural language processing in acute pancreatitis, natural history of hereditary pancreatitis, and liver transplant waitlist outcomes.

Peri Unligil MD
Dr. Unligil has a special interest researching the health effects of air pollution.

Kishore Vipperla MD FACP
Dr. Vipperla is interested in understanding the clinical course of pancreatitis. In his research team's retrospective review of prospectively enrolled acute pancreatitis patient registry, they noted that a third of these patients required readmission for recurrent attacks, symptom control, or management of their complications. The risk of endocrine insufficiency is greater than 20% after a sentinel acute pancreatitis event.

In their NIH-funded study, Dr. Vipperla and researchers performed 2-week food exchanges in subjects from the same populations, where African American participants were given a high-fibre, low-fat African-style diet and rural Africans, a high-fat, low-fibre western-style diet. The diet switch resulted in remarkable changes in mucosal biomarkers of cancer risk for both populations: after two weeks, the African Americans were associated with a significant reduction in colonic mucosal inflammation and proliferation biomarkers of cancer risk, while the diet switch in rural Africans resulted in reverse changes in all of these parameters.

Jonathan Yabes PhD
Dr. Yabes is a statistician in the Center for Research on Health Care (CRHC) Data Center who collaborates with investigators in the Schools of Health Sciences on diverse clinical research projects. His research has focused on the analysis of large administrative databases and the design, conduct, and analysis of clinical trials. He is involved in health services research of urologic diseases using the SEER-Medicare data and serves as a biostatistician in trials on insomnia, palliative care, and critical care. Dr. Yabes has worked on several research studies on renal disease, hematology, and pediatrics. His methodological interest includes survival and competing risks-regression methods, analysis of longitudinal data, missing data techniques, and joint modeling.
Lan Yu PhD
Dr. Yu's research has focused on applying advanced psychometric theories such as item-response theory and structural equation modeling to health-related outcomes. She has been the lead psychometrician for the NIH Roadmap Initiative, Patient-Reported Outcome Measurement Information System (PROMIS) Pittsburgh research site since 2007. Her research interests include large survey data, secondary data analysis, psychometrics, and item-bank development for various patient-reported outcomes.
Faculty Research and Other Scholarly Activities

Kaleab Abebe PhD
- Ad hoc reviewer, Journal of Clinical Oncology, 2011-present
- Ad hoc reviewer, PLoS ONE, 2012-present
- Ad hoc reviewer, Pain Medicine, 2015-present
- Ad hoc Reviewer, Kidney, Nutrition, Obesity, and Diabetes (KNOD) Study Section, NIH Center for Scientific Review, 2015
- Member, Data and Safety Monitoring Board, Maintaining Activity and Nutrition through Technology-Assisted Innovation in Primary Care (MAINTAIN-PC) Trial, University of Pittsburgh Department of Medicine, 2013-present
- Faculty Judge, Health Disparities Poster Competition, University of Pittsburgh School of Medicine, 2014-present
- Program Committee, Society for Clinical Trials Annual Conference, 2014-2016
- Member, Data and Safety Monitoring Board, Comparison of Sub-Dissociative Intranasal Ketamine Plus Standard Pain Therapy Versus Standard Pain Therapy in the Treatment of Pediatric Sickle Cell Disease Vaso-Occlusive Pain Crises in Resource-Limited Settings, Department of Emergency Medicine, Carolinas Health Care System, 2015-present
- Member, Data and Safety Monitoring Board, Randomized Controlled Trial of Intranasal Ketamine Compared to Intranasal Fentanyl for Analgesia in Children with Suspected Forearm Fractures in the Pediatric Emergency Department, Department of Emergency Medicine, Carolinas Health Care System. 2015-present
- Reviewer, Center for Quantitative Sciences Pilot Project Program, Vanderbilt University School of Medicine, 2016
- Ad hoc reviewer, Journal of the Society for Clinical Trials, 2016-present
- Co-Chair, Program Committee, Society for Clinical Trials Annual Conference, 2016-present

Eric Anish MD
- Reviewer, Clinical Journal of Sports Medicine, 1999-present
- Reviewer, Medicine and Science in Sports and Exercise, 1999-present
- Member, Abstract Review Board, National Abstract Competition in Internal Medicine, American College of Physicians, 2006-present
- Reviewer, Current Sports Medicine Reports, 2008-present
- Director, Sports / Musculoskeletal Medicine, University of Pittsburgh School of Medicine, 2009-present
- Reviewer, International Journal of Sports Medicine, 2012-present
- Guest Faculty, Arthrocentesis and Joint Injection, Annual Session of the American College of Physicians, Washington, DC, 2016
- Recipient, Team Physician Award, Pennsylvania Athletic Training Society, 2016

Robert Arnold MD
- Editorial Board, Journal of Palliative Medicine, 1997-present
- Member, Hospice and Palliative Care Interest Group, American Society of Bioethics and Humanities, 1998-present
- Advisory Board, Western Pennsylvania End-of-Life Coalition, 2001-present
- Advisory Committee, American Academy of Hospice and Palliative Medicine, 2005-present
- Committee to Update the Core Competency for Ethics Consultants, American Society of Bioethics and Humanities, 2006-present
- Editorial Board, Journal of Opioid Management, 2008-present
- Editorial Board, Supportive Care in Cancer, 2008-present
• Educational Exchange Review Committee, American Academy of Hospice and Palliative Medicine, 2009-present
• Accreditation Appeal Committee for Hospice and Palliative Medicine, Accreditation Council for Graduate Medical Education, 2010-present
• Editorial Board, *Annals of Palliative Medicine*, 2013-present
• Editorial Board, *Pain Studies and Treatment*, 2013-present
• Section Editor, Up-to-Date Palliative Care General, 2013-2016
• George L. Engel Award, American Academy of Healthcare Communication, 2015
• Topic Co-Editor, *Up-to-Date Palliative Care*, 2016-present

Amber Barnato MD MPH MS
• Trustee, Society for Medical Decision Making, 2009-present
• Co-Chair, Lee Lusted Student Prize Committee, Society for Medical Decision Making, 2011-present
• Member, Palliative Care and Symptom Management Peer Review Committee, American Cancer Society, 2010-present
• Member, Committee on Geographic Variation in Health Care Spending and Promotion of High-Value Care, Institute of Medicine, 2010-present
• FAIR Health Scientific Advisory Board, 2011-present
• Editorial Board, *Health Services Research*, 2012-present
• Co-Chair, Education Committee, Society for Medical Decision Making, 2012-present
• Policy Committee, Society for Medical Decision Making, 2013-present
• Editorial Board, *Intensive Care Medicine*, 2013-present

Sonya Borrero MD MS
• Leader, Disparities Workgroup, VA Women’s Health Research Consortium, VA Health Services Research and Development Service, 2012-present
• Site Leader, VA Women’s Health Practice-Based Research Network, VA Health Services Research and Development Service, 2012-present
• Advisory Committee, Jewish Healthcare Foundation HPV Vaccination Initiative, 2014-present
• Member, Adagio Health Medical Standards Committee, 2014-present
• Chair, Membership Committee, Society of Family Planning, 2014-present
• Advisory Committee, Upstream, 2014-present
• Director, Center for Women’s Health Research and Innovation (CWHRI), Center for Research on Health Care, University of Pittsburgh, 2014-present

Lauren Broyles PhD RN
• Associate Editor, *Substance Abuse*, 2012-present
• Advisory Board, National Addiction and Technology Transfer Center (ATTC) for Screening, Brief Intervention, and Referral to Treatment (SBIRT), Institute for Research, Education, and Training in Addictions (IRETA), 2012-present
• Chair, Alcohol and Tobacco ORYX Measure Implementation Team, VA Pittsburgh Healthcare System, 2013-present
• Secretary, Association for Medical Education and Research in Substance Abuse, 2013-2015
• Co-Director, VA Office of Academic Affiliations Interprofessional Advanced Fellowship in Addictions Treatment, VA Pittsburgh Healthcare System Interdisciplinary Addiction Program for Education and Research (VIPER), 2013-present
• Director, Research Acceleration and Moving Productivity forward to a K Award (RAMP-to-K) Program, Institute for Clinical Research Education, University of Pittsburgh, 2013-present
• Co-Director, National Coordinating Center, VA Office of Academic Affiliations Interprofessional Advanced Fellowship in Addictions Treatment, VA Pittsburgh Healthcare System, 2015-present

Thuy Bui MD
• Abstract Reviewer, Society of General Internal Medicine, 2010-present
• Abstract Reviewer, Consortium of Universities for Global Health, 2011-present

Peter Bulova MD
• Director, University of Pittsburgh Center for Adults with Down Syndrome, 2003-present
• Co-Director, University of Pittsburgh Magee-Womens Hospital Center for Women with Disabilities, 2004-present
• Member, National Down Syndrome Medical Interest Group, sponsored by the National Down Syndrome Society, 2004-present
• Member, International Medical Graduates Interest Group, Society of General Internal Medicine, 2011-present
• Member, Transitional Care for Youth with Chronic Disease Interest Group, Society of General Internal Medicine, 2011-present
• Member, Executive Council for the National Down Syndrome Medical Interest Group, 2011-present
• Clinical Symposium Planning Committee, National Down Syndrome Medical Interest Group, 2012-present
• Ad Hoc Reviewer, Advances in Health Sciences Education, 2012-Present
• Abstract Reviewer, National Down Syndrome Medical Interest Group, 2013-present
• Ad Hoc Reviewer, Journal of Intellectual Disability Research, 2013-present
• Member, National Down Syndrome Registry Operations Board, National Institutes of Health, 2013-present
• Reviewer, American Journal on Intellectual and Developmental Disabilities, 2015-present
• Ad Hoc Reviewer, New England Journal of Medicine, 2015-present
• Vice President, Executive Council for the National Down Syndrome Medical Interest Group, 2016-present

Gregory Bump MD
• Associate Medical Director, GME Quality and Safety, Wolff Center for Quality, Safety, and Innovation, 2014-present
• Co-Chair, Patient Safety and Quality Improvement, UPMC Medical Education, 2014-present

Chung-Chou Ho Chang PhD
• Statistical Consultant, Circulation, 2010-present
• Member and Statistical Advisor, Editorial Board, International Psychogeriatrics, 2011-present

Molly Conroy MD MPH
• Member, Obesity Subcommittee, Nutrition, Physical Activity, and Metabolism Council, American Heart Association, 2011-2015
• Member, Ad Hoc Committee on Diversity, American College of Sports Medicine, 2011-present
• Chair, Exercise Is Medicine for Underserved Populations Committee, American College of Sports Medicine, 2012-present
• Co-Chair, Minority Health and Research Interest Group, American College of Sports Medicine, 2013-2015
• Fellow, American College of Sports Medicine, 2014-present
• Inducted Fellow, American Heart Association, February 2016

Jennifer Corbelli MD MS
• Abstract reviewer, Society of General Internal Medicine, 2014-present
• Workshop Reviewer, Society of General Internal Medicine, 2014
- Reviewer, *Women's Health Issues*, 2014-present

**Esa Davis MD MPH**
- Reviewer, *Annals of Internal Medicine*, 2009-present
- Member, Selection Committee for the Amy Roberts Health Promotion Research Award, 2011-present
- Member, General Internal Medicine Residency Diversity Committee, 2011-present
- Fellow, American Academy of Family Physicians, 2012-present
- Education Committee Chair, American Heart Association Executive Leadership Committee, Pittsburgh Region, 2012-present
- Executive Leadership Committee, ENACT R25 Training program in comparative effectiveness research, 2014-present

**Hollis Day MD**
- Abstract and Workshop Reviewer, Society of General Internal Medicine, 2003-present
- Abstract Reviewer, Research in Medical Education (RIME) Section, Association of American Medical Colleges, 2006-present
- Member, Council, Society of General Internal Medicine, 2013-present

**D Michael Elnicki MD**
- Academy of Master Educators, University of Pittsburgh School of Medicine, 2006-present
- Abstract and Paper Reviewer, Research in Medical Education (RIME) Committee, Association of American Medical Colleges, 2010-present
- Deputy Editor, *Journal of General Internal Medicine*, 2013-present
- Member, Alliance of Academic Internal Medicine, 2015-2016
- Director, International Medical Education Programs, University of Pittsburgh School of Medicine
- Master, American College of Physicians, 2015-present

**Michael Fine MD MSc**
- Fellow, American College of Physicians, 1998-present
- Member, American Society for Clinical Investigation, 1999-present
- Member, Association of American Physicians, 2009-present
- Member, American Thoracic Society/Infectious Diseases Society of America Joint Guideline on Community and Hospital Community Acquired Pneumonia Committee, 2014-present
- *Pittsburgh Magazine*, Best Doctors, 2012-2016

**Gary Fischer MD**
- Quality and Practice Innovation Award, Society of General Internal Medicine, 2016
- Member, Innovations in Practice Management Abstract Committee, Society of General Internal Medicine Annual Meeting, 2016

**Walid Gellad MD MPH**
- Alternate Member, Drug Safety Oversight Board, FDA, 2009-present
- Member, Scientific Advisory Board, Health Prize, 2015-present
- Member, Health Information Technology and Exchange Work Group for the Pennsylvania Department of Health Innovation Plan, 2015-present

Department of Medicine  http://www.dom.pitt.edu/dgim
• Featured speaker for Public Health Care Forum sponsored by the Pittsburgh Post-Gazette on “The Specialty Drug War: Cost vs. Cure,” 2015
• Excellence in Government Award, Outstanding Contribution to Science Category, Federal Executive Board, 2016
• Co-Author, Patterns and Quality of Buprenorphine Opioid Agonist Treatment in a Large Medicaid Program, Selected as Top 10 Highest-Clicked Articles in Field of Addiction Medicine in 2015, American Society of Addiction Medicine, 2016
• Member, Data Safety Monitoring Board, Telepharmacy Intervention to Improve Treatment Adherence (R01 HL117918), 2016-present
• Editorial Board, Journal of General Internal Medicine, 2016-present

Alda Maria Gonzaga MD MS
• Member, Taskforce on Board Certification, Medicine-Pediatrics Program Directors Association (MPPDA), 2011-present
• Subcommittee on Curriculum, MPPDA, 2011-present
• Secretary-Treasurer, MPPDA, 2012-present
• Consultant, MPPDA Consultation program, MPPDA, 2012-present
• Subcommittee on Accreditation, MPPDA, 2012-present

C. Bernie Good MD MPH
• Chair, Medical Advisory Panel, Veterans Health Administration Pharmacy Benefits Management Strategic Healthcare Group, Department of Veterans Affairs, 1999-present
• Member, Pharmacy and Therapeutics Committee, VISN 4, 1999-present
• Co-Director, Center for Medication Safety, Department of Veterans Affairs, 2003-present
• Member, Computerized Patient Record System Clinical Workgroup, Department of Veterans Affairs, 2004-present
• Drug Safety Oversight Board, Food and Drug Administration, 2005-present
• Board of Directors, Shoulder to Shoulder, Pittsburgh–San Jose, 2005-present
• Member, VA Adverse Drug Event Reporting System (VA ADERS) Advisory Group, 2008-present
• Member, Committee of Competent Prescription Authorities, 2009-present
• Member, Evidence Synthesis Program Steering Committee, Department of Veterans Affairs, 2010-present
• Member, Panel on Teratogenic Medication Use in the VA, Department of Veterans Affairs, 2010-present
• Member, National Clinical Pharmacy Executive Board, Department of Veterans Affairs, 2012-present
• Member, National Pharmacy Efficiency Program Savings Opportunities Workgroup, Department of Veterans Affairs, 2013-present
• Member, Veterans Affairs Choosing Wisely Taskforce, 2013-present
• Member, VA Department of Defense Clinical Practice Guidelines for the Treatment of Diabetes Workgroup, 2015-present
• Member, VA Precision Medicine Workgroup, Department of Veterans Affairs, 2015-present
• Member, VA Department of Defense Uniform Formulary Task Force, Department of Veterans Affairs, 2015-present

Adam Gordon MD MPH
• Director, Buprenorphine in the VA (BIV) Program, 2006-present
• Chair, Continuing Medical Education Committee, American Society of Addiction Medicine, 2009-present
• Review Committees, NIH, PCORI, VA Grant Review Panels, 2010-present
• Member, Steering Committee, Physician Clinical Support System for Office-Based Opioid Treatment–Buprenorphine, representing Association of Medical Education Research on Substance Abuse, 2011-present
- Director, Addiction Triage for Homeless: Enhancing VA Medical Homes (ANTHEM), 2012-present
- Editor-in-Chief, Substance Abuse, 2012-present
- Director, VA Pittsburgh Healthcare System's Interdisciplinary Addiction Program for Education and Research (VIPER), VAPHS, 2012-present
- Director, Advancing VA Interdisciplinary Addiction Training in Education, Research, and Scholarship (AVIATORS) – the National Coordinating Center for the VA's Interprofessional Advanced Fellowships in Addiction Treatment, Pittsburgh, PA, 2014-present
- Co-Director of Research, Section of Treatment, Research, and Education in Addiction Medicine (STREAM)
- Board of Directors, International Society of Addiction Journal Editors, 2016-present

Rosanne Granieri MD
- General Internal Medicine Writing Committee, Medical Knowledge Self-Assessment Program 17 (MKSAP17), American College of Physicians, 2013-present

Janel Hanmer MD
- Reviewer, PLOS, 2014-present
- Reviewer, Medical Decision Making, 2014-present
- Reviewer, Quality of Life Research, 2014-present
- Sentinel Reader for Evidence-Based Medicine, Health Information Research Unit, McMaster University, 2014-Present
- Member, Abstract Reviewer, Society of General Internal Medicine Annual Meeting, 2015-present
- Member, Abstract Reviewer, Society for Medical Decision Making Annual Meeting, 2015-present
- Reviewer, Value in Health, 2015-present
- Editorial Board, Medical Decision Making, 2016-2018

Peggy Hasley MD MHSc
- Reviewer, Medical Education Innovations, Society of General Internal Medicine Annual Meeting, 2003-present

Leslie Hausmann PhD
- Abstract Reviewer, Society of Behavioral Medicine, 2014-present

Scott Herrle MD MS
- Member, General Internal Medicine Writing Committee, Medical Knowledge Self-Assessment Program 17 (MKSAP17), American College of Physicians, 2013-2015
- Fellow, American College of Physicians, 2013-present
- Member, General Internal Medicine Writing Committee, Medical Knowledge Self-Assessment Program (MKSAP 18), American College of Physicians, 2016-present

Rachel Hess MD MS
- Abstract Reviewer, Society for Medical Decision Making, 2004-present
- Abstract Reviewer, Society of General Internal Medicine, 2005-present
- Member, Women’s Health Task Force, Society of General Internal Medicine, 2006-present
- Co-Chair, Lifestyle, Symptoms, and Behavior Committee, Study of Women’s Health Across the Nation, 2010-present
Brian Heist MD MSc
- Coordinator, Partnership with UPMC Department of Internal Medicine and Teine Keijinkai Hospital General Internal Medicine Residency Program, 2012-present
- Abstract Reviewer, Society of General Internal Medicine, 2014-present
- Reviewer, Journal of Graduate Medical Education, 2014-present

Erika Hoffman MD
- Recipient, Clinical Excellence Award, VA Pittsburgh Healthcare System, 2016
- Member, VISN Advisory Group for PACT Advancement, 2015-present
- Member, Risk Evaluation for Mitigation Strategy, FDA Advisory Panel for Extended-Release Long-Acting Opiates, 2015-present

Wishwa Kapoor MD MPH
- External Advisory Board, Clinical and Translational Science Institute of New York University and New York City Health and Hospitals Corporation, 2009-present
- External Advisory Board, Institute for Integration of Medicine and Science at the University of Texas Health Sciences Center, San Antonio, 2010-present
- External Advisory Board, Mayo Clinic Center for Translational Science Activities, 2011-present
- External Advisory Board, Georgetown Howard University Center for Clinical and Translational Science, 2011-present
- Internal Advisory Board, Emergency Medicine K12, Pittsburgh, 2011-present
- Pittsburgh Magazine, the “Best Doctors”, 2012-2016
- Recipient, Chief’s Recognition Award, Association of Chiefs and Leaders of General Internal Medicine, Society of General Internal Medicine, 2016

Dio Kavalieratos PhD
- Editorial Board, American Journal of Public Health, 2011-present
- Advisor, Investigator Development Core, Palliative Care Research Cooperative, 2015-present
- Chair, Scientific Subcommittee, American Academy of Hospice and Palliative Medicine, 2016-present
- Scientific Review Committee, National Palliative Care Research Center, 2016-present
- Palliative Care Research Cooperative Study Section, 2016-present
- Recipient, Top Abstract among Junior Faculty, Health Services Research Day, University of Pittsburgh Department of Medicine, 2016

Kevin Kraemer MD MSc
- Task Force on Substance Abuse, Society of General Internal Medicine, 1996-present
- Member, National Conference Scientific Abstract Review Committee, Association for Medical Education and Research in Substance Abuse, 2000-present
- Associate Editor, Alcohol, Other Drugs, and Health: Current Evidence, 2003-present
- Ad Hoc study Reviewer, AA-2 Health Services, Prevention, and Epidemiology Research, National Institutes of Health and National Institute on Alcohol Abuse and Alcoholism, 2006-present

Frank Kroboth MD
- George H. Taber Chair in General Internal Medicine, 2004-present

Douglas Landsittel PhD
- Ad Hoc Reviewer, Safety and Occupational Health Study Section, National Institute of Occupational Safety and Health, Centers for Disease Control and Prevention, 2002-present
• Member; Kidney, Nutrition, Obesity, and Diabetes Study Section; Center for Scientific Review; National Institutes of Health; 2013-2017
• Member, Data Safety Monitoring Board for the Improving Chronic Disease Management with Pieces Trial, National Institute of Diabetes and Digestive and Kidney Diseases, National Institutes of Health, 2014-present
• Editorial Board, Journal of Clinical Oncology, 2013-2018
• Chair, University Senate Educational Policies Committee, 2016-2017
• External Expert Panel, Prevention of Lower Urinary Tract Symptoms (PLUS) Research Consortium, National Institute of Diabetes and Digestive and Kidney Diseases, National Institutes of Health, 2016-present

Melissa McNeil MD MPH
• Women Veterans Health Strategic Task Force, 2009-present
• Curriculum Design Committee, VA Women’s Health National Mini-Residency Program, 2009-present
• Associate Editor, Reviewer, Journal of Women’s Health, 2015-2016
• Reviewer, Journal of General Internal Medicine, 2015-2016
• Reviewer, Women’s Health Issues, 2015-2016
• Program Director, Building Interdisciplinary Careers in Women’s Health, 2015-2016
• Member, National Board of Medical Examiners Test Material Development Committee, 2014-present
• Member, American College of Obstetrics and Gynecology Task Force, Women’s Preventive Services Initiative, 2016-present
• Invited Speaker, Women’s Health Update, American College of Physicians National Meeting, 2016
• Recipient, Lifetime Achievement Award for Medical Education, Division of General Internal Medicine, University of Pittsburgh, 2016
• Recipient, Career Achievement in Medical Education Award, Society of General Internal Medicine, 2016
• Recipient, Women of Distinction, Girls Scouts of Southwestern Pennsylvania, 2016
• Recipient, Charles Watson Award for Distinguished Teaching, University of Pittsburgh Alpha Omega Alpha Chapter, 2016

Kathleen McTigue MD MPH MS
• Obesity Subcommittee, Nutrition, Physical Activity, and Metabolism Council, American Heart Association, 2011-2015
• Obesity Interest Group, Society of General Internal Medicine, 2015-present
• PCORnet Publications Committee, 2016

Alexandra Mieczkowski MD
• Fellow, American Academy of Pediatrics, 2013-present
• Reviewer, Journal of General Internal Medicine, 2015-present
• Workshop Reviewer, Society of General Internal Medicine, 2015-present

Natalia Morone MD MS
• Member, Editorial Board, Pain Medicine, 2009-present
• Chair, Data Safety and Monitoring Body, Mindfulness-Based Stress Reduction and Cognitive Behavioral Therapy for Chronic Back Pain, National Center for Complementary and Integrative Health, 2012-present
• Member, Steering Committee, Center for Integrative Medicine, UPMC, 2014-present
• Grant reviewer, Panel ZAT1 HS-23, Clinical Research on Mind-Body Interventions, National Institutes of Health and National Center for Complementary and Integrative Health, 2015-present
Larissa Myaskovsky PhD
- Reviewer, *Clinical Transplantation*, 2010–present
- Faculty Member, Protocol Review Committee and Data Safety Monitoring Board, Thomas E. Starzl Transplantation Institute, University of Pittsburgh School of Medicine, 2013–present
- Reviewer, Small Projects in Rehabilitation Research (SPIRE), Veterans Administration Rehabilitation Research and Development Service, 2014–present
- Reviewer, Health Disparities and Equity Promotion (HDEP) study section of the National Institutes of Health, 2014–present
- Executive Committee, Psychosocial Community of Practice, American Society of Transplantation, 2014–2017

Seo Young Park PhD
- Reviewer, *BMC Health Services Research*, 2015–present

Brian Primack MD PhD
- Member, Standing Study Section, Community Influences in Health Behavior, Center for Scientific Review, National Institutes of Health, 2012–present
- Guest Speaker, Mass Media and Public Health in 2016, State of Pennsylvania Health Career Scholars Academy (formerly Pennsylvania Governor’s School for Health Care), 2016
- Keynote Speaker, Optimizing Health in a New Media Environment, 1787 Society, 2016
- Guest Speaker, Social Media Use and Mental Health Outcomes, Health Services Research Seminar Series, 2016
- Recipient, Outstanding Research Award, Initiation of Cigarette Smoking after E-Cigarette Use: A Nationally Representative Study, Oral Presentation, Society of Behavioral Medicine, Washington, DC 2016
- Recipient, Distinguished Alumnus of the Year, Institute for Clinical Research Education, University of Pittsburgh, 2016
- Selected Member, Society of Behavioral Medicine Executive Leadership Institute, 2016–2017

Thomas Radomski MD
- Abstract and Workshop Reviewer, Society of General Internal Medicine, 2013–present
- Abstract Reviewer, American College of Physicians, Western Pennsylvania Regional Meeting, 2015–present

Bruce Rollman MD MPH
- Scientific Advisory Board, Anxiety Disorder Association of America, 2010–present
- Chair, Internal Research Review Committee, Center for Research on Health Care, 2010–present
- Scientific Advisory Board, Anxiety Disorder Association of America, 2010–present
- Editorial Board, *General Hospital Psychiatry*, 2011–present
- Annual Meetings Program Committee, American Psychosomatic Society, 2011–present
- Invited Speaker, Opening Plenary Session, Society of General Internal Medicine Annual Meeting, 2016
• Technical Expert Panel, Identification and Treatment of Post-Acute Coronary Syndrome Depression, Agency for Healthcare Research and Quality/Duke Evidence-Based Practice Center Comparative Effectiveness Review, 2016-present
• Program Committee, International Society for Research on Internet Interventions, 2016-present
• Founding Director, Center for Behavioral Health and Smart Technology, University of Pittsburgh, 2016-present

Doris Rubio PhD
• Chair, Evaluation Education Working Group, Clinical and Translational Science Award Consortium, 2010-present
• External Advisory Board, University of Cincinnati, 2010-present
• External Advisory Board, University of Colorado, 2011-present
• Association for Clinical and Translational Science, 2012-present
• Chair, Common Metrics Workgroup, CTSA Consortium, 2012-present
• Chair, External Advisory Board, University of Michigan, 2012-present
• External Advisory Board, The Ohio State University, 2012-present
• External Advisory Board, University of Minnesota, 2013-present
• External Advisory Board, Duke, 2014-present
• External Advisory Board, Iowa University, 2014-present
• Appointed Member, School of Medicine Executive Committee, 2015-present
• Ad Hoc Member, Education Review Panel, National Center for Complementary and Alternative Medicine, and Health Services Organization and Delivery Study Section, Center for Scientific Review, National Institutes of Health, 2015-2016

Yael Schenker MD MS
• Abstract Reviewer, Society of General Internal Medicine National Meeting, 2009-present
• LEAD Scholar, Association of Chiefs and Leaders in General Internal Medicine, 2015-2016
• Invited Speaker, Institute of Medicine Roundtable on Informed Consent and Health Literacy, Washington DC, 2015-2016
• Member, Expert and Stakeholder Panel, Improving Hospital Informed Consent with an Informed Consent Toolkit, AHRQ, 2015-2016
• Director, Palliative Care Research, Division of General Internal Medicine, Section of Palliative Care and Medical Ethics, University of Pittsburgh, 2014-present
• Planning Committee, Institute of Medicine Workshop on Health Literacy and Palliative Care, in Washington DC, July 2015

Kenneth Smith MD MS
• Fellow, American College of Physicians, 1995-present
• Member, Abstract Selection Committee, Society for Medical Decision Making, 1994-1999, 2001-present
• Member, Abstract Selection Committee, Society of General Internal Medicine, 2004-present
• Mentor, One-to-One Mentoring Program, Society for Medical Decision Making, 2009-present
- Expert Contributor, Herpes Zoster Content, *British Medical Journal* Evidence Centre, Point of Care/Best Practice, 2013-present
- Distinguished Mentor Award, Institute for Clinical Research Education, University of Pittsburgh, 2014
- Deputy Editor, *Medical Decision Making*, 2015-present

**Carla Spagnoletti MD MS**
- Faculty Advisor, Chapter of the American Medical Women’s Association, University of Pittsburgh School of Medicine, 2013-present
- Chair, Patient Experiences Committee, Division of General Internal Medicine, University of Pittsburgh, 2013-present
- Director, Academic Clinician-Educator Scholars Fellowship, Division of General Internal Medicine, UPMC and University of Pittsburgh, 2014-present
- Founding Member, UPMC Patient Experience Physician Advisory Council, 2014-present
- Recipient, Scholarship in Medical Education Award, Society of General Internal Medicine, 2015
- Director, Masters and Certificate Program in Medical Education, Institute for Clinical Research Education, University of Pittsburgh, 2015-present
- Abstract Committee, Graduate Medical Leadership Conference, University of Pittsburgh School of Medicine, 2015-present
- Education Committee, Society of General Internal Medicine, 2015-present
- Ad Hoc Reviewer, *Medical Education*, 2015-present
- Consultant, Patient Experiences and Transparency, 2015-present
- Recipient, Association of Chiefs and Leaders in General Internal Medicine Leadership Award, Society of General Internal Medicine, 2016
- Conference Co-Leader, Graduation Medical Education Leadership Conference, UPMC, 2016
- Med Ed Day Development Committee, University of Pittsburgh School of Medicine, 2016
- Supporting Education Scholarship Committee, Academy of Master Educators, University of Pittsburgh School of Medicine, 2016
- Mentoring Committee, Academy of Master Educators, University of Pittsburgh School of Medicine, 2016
- Poster Judge, Resident Research Day, University of Pittsburgh School of Medicine, 2016
- Poster Judge, Research Day, University of Pittsburgh School of Medicine, 2016
- Medical Education Scholarship Abstract Review Committee, 39th Annual Meeting of the Society of General Internal Medicine, 2015-2016

**Brielle Spataro MD MS**
- Society of General Internal Medicine, 2014-present
- Collaborative Research Work Group, Alliance for Academic Internal Medicine Collaborative on Healing and Renewal in Medicine, 2016

**Jamie Stern MD**
- Fellow, American College of Physicians, 2015
- Chair, Women's Health Workshop, Society of General Internal Medicine, 2015

**Galen Switzer PhD**
- Co-Chief, Measurement Core, Center for Health Equity Research and Promotion, VA Pittsburgh Healthcare System, 2001-present
- Core Faculty member, Center for Health Equity Research and Promotion, VA Pittsburgh Healthcare System, 2001-present
• Mentor, Medical Student Scholarly Project Program, University of Pittsburgh School of Medicine, 2004-present
• Member, Donor/Patient Safety Monitoring Board, National Marrow Donor Program, 2004-present
• Associate Director, Center for Health Equity Research and Promotion, VA Pittsburgh Healthcare System, 2005-present
• Chair, PhD Core Faculty Group, Veterans Administration, Center for Health Equity Research and Promotion, VAPHS, 2005-present
• Education Core Committee, Clinical and Translational Science Institute, University of Pittsburgh School of Medicine, 2006-present
• Quality of Life Working Group, Stem Cell Therapeutic Outcomes Database, Center for International Blood and Marrow Transplant Research, Milwaukee, WI, 2006-present
• Director, PhD Program in Clinical Research, Clinical and Translational Science, Institute, University of Pittsburgh School of Medicine, 2007-present
• Member, University of Pittsburgh School of Medicine Career Education and Enhancement for Health Care Research Diversity (CEED) Executive Committee, 2011-present
• PhD Security Task Force, University of Pittsburgh School of Medicine, 2015-present
• Co-Chair, Donor Health and Safety Working Committee, Center for International Blood and Marrow Transplant Research, 2015-present
• Co-Director, VA Post-Doctoral Fellowship in Health Services Research, Center for Health Equity Research and Promotion, VA Pittsburgh Healthcare System, 2015-present

Gary Tabas MD
• Editor, Annals Virtual Patients, Annals of Internal Medicine, and American College of Physicians, 2011-present
• Recipient, American College of Physicians Laureate Award for Western PA, 2015
• Honoree, University of Pittsburgh Honors Convocation, 2016

Holly Thomas MD
• Recipient, New Investigator Award, North American Menopause Society, 2016

Andrew Thurston MD
• Guest Lecturer, Medical Ethics Conference, UPMC Passavant, October 2015
• Guest Lecturer, Lawrence County Medical Society Conference, November 2015
• Guest Lecturer, Meet the Experts Conference, UPMC Northwest, November 2015
• Simulation Facilitator, GeriTalk, 2016
• Guest Lecturer, Pennsylvania Health Network Medical Society, 2016
• Guest Lecturer, Ethics Course, La Roche College, 2016
• Guest Lecturer, Voice Center, UPMC Mercy, 2016
• Guest Lecturer, Ethics Committee Meeting, UPMC Mercy, 2016
• Guest Lecturer, Ethics Conference, UPMC Mercy, 2016

Sarah A Tilstra MD MS
• Women's Health Task Force, Society of General Internal Medicine, 2011-present
• Abstract Reviewer, Society of General Internal Medicine, 2012-present
• Subcommittee Member, Career Advising Program, Women's Health Task Force, Society of General
• Reviewer, Journal of General Internal Medicine, 2013-present
• Workshop Reviewer, Society of General Internal Medicine, 2014-present
• Fellow, American College of Physicians, 2015-present
• Reviewer, Journal of Women's Health, 2016
• Chair, Women’s Health Oral Abstract Awards, Society of General Internal Medicine, 2016

Dana Tudorascu PhD
• Ad Hoc Reviewer, Neuroimage, 2014-present
• Ad Hoc Reviewer, Depression and Anxiety, 2014-present
• Ad Hoc Reviewer, European Grant Foundation, 2014-present
• Ad Hoc Reviewer, Neuroimage Clinical, 2016

Asher Tulsky MD
• Examination Writing Committee, American Board of Internal Medicine (ABIM), 2008-present
• Editorial Board, Academic Internal Medicine Insight, published by the Alliance for Academic Internal Medicine, 2010-present
• Reviewer, Medical Knowledge Self-Assessment Program (MKSAP), American College of Physicians, 2010-present
• Chair, Communications Committee, Alliance for Academic Internal Medicine (AAIM), 2014-present
• American Board of Internal Medicine Specialty Board, 2014-present

Reed Van Deusen MD MS
• Curriculum Committee, Medicine-Pediatrics Program Directors Association, 2009-present
• Abstract Reviewer, Research in Medical Education (RIME) Section, American Association of Medical Colleges, 2007-present
• Transitions Committee, Medicine-Pediatrics Program Directors Association, 2011-present
• Health Policy Committee, Society of General Internal Medicine, 2012-present
• Young Adult with Special Health Care Needs Interest Group, Society of General Internal Medicine, 2013-present
• Recipient, William I. Cohen Award for Outstanding Clinical Skills Instruction of Medical Students, 2014

Jonathan Yabes PhD
• Reviewer, Journal of Mechanics in Medicine and Biology, 2013-present
• Reviewer, Pre-hospital Emergency Care, 2014-present

Lan Yu PhD
• Internal Grant Reviewer, Department of Psychiatry Research Committee 2010-present
• Ad Hoc Reviewer, Behavioral Sleep Medicine, 2012-present

Susan Zickmund PhD
• Coordinator and Member, Mixed-Methods Interest Group, VA Health Services Research and Development, 2005-present
• Member, Steering Committee for the HIV/Hepatitis Group of the Quality Enhancement Research Initiative (QUERI), VA HSR&D, 2009-present
• Co-Founder and Member, VA Inter-QUERI Equity Improvement Working Group, VA Health Services Research and Development, 2009-present
• Scientific Merit Review Board, VA Health Services Research and Development, 2009-present
• Member, Nursing Research Initiative, Merit Review Proposal Review Committee, VA Office of Research and Development, 2009-present
• Lead, Mixed Methods Cyber Seminar Series, VA Health Services Research and Development, 2010-present
• Director, Qualitative, Evaluation and Stakeholder Engagement (Qual EASE) Research Services, Center for Research on Health Care Data Center, University of Pittsburgh, 2013-present.
Shanta Zimmer MD

- Member, Pandemic H1N1 Epidemiology Working Group, Subgroup Serosurveillance, World Health Organization (WHO), 2010-present
- Fellow, American College of Physicians, 2012-present
- Fellow, Infectious Disease Society of America, 2012-present
- Fellow, Executive Leadership in Academic Medicine, 2013-present
- Faculty Representative, Association of American Medical Colleges, Council of Faculty and Academic Societies
- Member, Infectious Disease Society of America, Program Director Committee, 2013-present
- Liaison, Infectious Disease Society of America, Education Committee, 2013-present
## GRANTS AND CONTRACTS AWARDED

<table>
<thead>
<tr>
<th>PUBLIC HEALTH SERVICE</th>
<th>PROJECT DESCRIPTION</th>
<th>AWARDING INSTITUTION</th>
<th>DIRECT COSTS</th>
<th>INDIRECT COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABEBE, KALEAB</td>
<td>A CLUSTER-RANDOMIZED TRIAL OF A MIDDLE SCHOOL GENDER VIOLENCE PREVENTION PROGRAM</td>
<td>CENTER FOR DISEASE CONTROL</td>
<td>$5,283</td>
<td>$1,205</td>
</tr>
<tr>
<td>ABEBE, KALEAB</td>
<td>COLLEGE HEALTH CENTER-BASED ALCOHOL AND SEXUAL VIOLENCE INTERVENTION</td>
<td>NIAAA</td>
<td>$12,879</td>
<td>$6,955</td>
</tr>
<tr>
<td>ABEBE, KALEAB</td>
<td>DIPYRIDAMOLE AS A MODULATOR OF HIV-1 INFLAMMATION BY ADENOSINE REGULATION</td>
<td>NIAID</td>
<td>$6,424</td>
<td>$3,469</td>
</tr>
<tr>
<td>ABEBE, KALEAB</td>
<td>ENGENDERING HEALTHY MASCULINITIES TO PREVENT SEXUAL VIOLENCE</td>
<td>CENTER FOR DISEASE CONTROL</td>
<td>$6,535</td>
<td>$3,529</td>
</tr>
<tr>
<td>ABEBE, KALEAB</td>
<td>TAILORING CLINICAL INTERVENTIONS FOR ADOLESCENT RELATIONSHIP ABUSE</td>
<td>NIH</td>
<td>$13,207</td>
<td>$1,057</td>
</tr>
<tr>
<td>ABEBE, KALEAB</td>
<td>A STEPPED WEDGE TRIAL OF AN INTERVENTION TO SUPPORT FAMILY MEMBERS IN ICUS</td>
<td>NINR</td>
<td>$26,157</td>
<td>$14,125</td>
</tr>
<tr>
<td>ARNOLD, ROBERT M.</td>
<td>A TRIAL TO IMPROVE SURROGATE DECISION MAKING FOR CRITICALLY ILL OLDER ADULTS</td>
<td>NIA</td>
<td>$16,887</td>
<td>$9,119</td>
</tr>
<tr>
<td>ARNOLD, ROBERT M.</td>
<td>DEVELOPING A TABLET-BASED TOOL TO ENHANCE COMMUNICATION AND SHARED DECISION MAKING AMONG CLINICIANS AND SURROGATES DECISION MAKERS IN ICUS</td>
<td>NIA</td>
<td>$11,255</td>
<td>$6,078</td>
</tr>
<tr>
<td>BARNATO, AMBER E.</td>
<td>IDENTIFYING OPTIMAL CARE STRUCTURES AND PROCESSES IN LONG TERM ACUTE HOSPITALS</td>
<td>NIH</td>
<td>$33,764</td>
<td>$18,233</td>
</tr>
<tr>
<td>BARNATO, AMBER E.</td>
<td>ORGANIZATIONAL DETERMINANTS OF ICU TELEMEDICINE EFFECTIVENESS</td>
<td>NHLBI</td>
<td>$43,015</td>
<td>$23,228</td>
</tr>
<tr>
<td>BARNATO, AMBER E.</td>
<td>A NOVEL INTERVENTION TO MAKE HEURISTICS A SOURCE OF POWER PHYSICIANS</td>
<td>NLM</td>
<td>$6,565</td>
<td>$3,545</td>
</tr>
<tr>
<td>BARNATO, AMBER E.</td>
<td>TECHNOLOGY DIFFUSION, HEALTH OUTCOMES, AND HEALTHCARE EXPENDITURES</td>
<td>DARTSMOUTH COLLEGE/ NIA</td>
<td>$22,509</td>
<td>$12,155</td>
</tr>
<tr>
<td>BARNATO, AMBER E.</td>
<td>NOVEL APPROACHES TO PROFILING HOSPITALS ON CRITICAL ILLNESS MORTALITY</td>
<td>NHLBI</td>
<td>$33,543</td>
<td>$18,113</td>
</tr>
<tr>
<td>Name</td>
<td>Project Description</td>
<td>Institution</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>-----------------</td>
<td>--------------------------------------------------------------------------------------</td>
<td>----------------------------</td>
<td>---------------</td>
<td>----------------</td>
</tr>
<tr>
<td>BORRERO, SONYA</td>
<td>Investigating Racial Differences in Low-Income Men's Fertility Intentions and Behavior</td>
<td>NICHD</td>
<td>$109,933</td>
<td>$59,364</td>
</tr>
<tr>
<td>BORRERO, SONYA</td>
<td>Quantification of Immune Cells in Women Using Contraception</td>
<td>Magee Women's Hospital/NIAID</td>
<td>$20,477</td>
<td>$10,528</td>
</tr>
<tr>
<td>BULOVA, PETER</td>
<td>Natural History of Amyloid Deposition in Adults with Down Syndrome</td>
<td>NIA</td>
<td>$3,141</td>
<td>$1,696</td>
</tr>
<tr>
<td>BULOVA, PETER</td>
<td>Neurodegeneration in Aging Down Syndrome (NIAD): A Longitudinal Study of Cognition and Biomarkers of Alzheimer's Disease</td>
<td>NIA</td>
<td>$6,372</td>
<td>$3,441</td>
</tr>
<tr>
<td>CHANG, CHUNG-CHOU</td>
<td>Innate and Adaptive Immunity in HIV-Associated Impaired Glucose Tolerance and Diabetes</td>
<td>Vanderbilt University/NIDDK</td>
<td>$32,641</td>
<td>$17,626</td>
</tr>
<tr>
<td>CHANG, CHUNG-CHOU</td>
<td>Immune Function and the Risk of CVD Among HIV Infected and Uninfected Veterans</td>
<td>Vanderbilt University/NHLBI</td>
<td>$36,953</td>
<td>$19,956</td>
</tr>
<tr>
<td>CHANG, CHUNG-CHOU</td>
<td>Procalcitonin Antibiotic Consensus Trial (PROACT)</td>
<td>NIGMS</td>
<td>$9,297</td>
<td>$5,020</td>
</tr>
<tr>
<td>CHANG, CHUNG-CHOU</td>
<td>Translational Research on Alcohol, Immunodeficiency, and Aging in Compaas</td>
<td>Yale University/NIAA</td>
<td>$21,471</td>
<td>$11,594</td>
</tr>
<tr>
<td>CHANG, CHUNG-CHOU</td>
<td>Consortium to Improve Outcomes in HIV/AIDS, Alcohol, Aging, &amp; Multi-Substance Use</td>
<td>Yale University/NIAA</td>
<td>$26,338</td>
<td>$13,564</td>
</tr>
<tr>
<td>CHANG, CHUNG-CHOU</td>
<td>Cardiac Pathology and Risk Prediction for Sudden Cardiac Death in Patients with HIV</td>
<td>Vanderbilt University/NHLBI</td>
<td>$20,341</td>
<td>$10,985</td>
</tr>
<tr>
<td>CHANG, CHUNG-CHOU</td>
<td>Temporally-Oriented Subjective Well-Being Across Transitions - Resources &amp; Outcomes</td>
<td>University of Utah/NCCAM</td>
<td>$52,470</td>
<td>$26,660</td>
</tr>
<tr>
<td>CHANG, CHUNG-CHOU</td>
<td>HIV, Depression, and Cardiovascular Risk</td>
<td>Indiana University/NHLBI</td>
<td>$51,781</td>
<td>$27,961</td>
</tr>
<tr>
<td>CHANG, CHUNG-CHOU</td>
<td>Mild Cognitive Impairment: A Prospective Community Study</td>
<td>NIA</td>
<td>$4,660</td>
<td>$2,517</td>
</tr>
<tr>
<td>CHANG, CHUNG-CHOU</td>
<td>Late Cardiovascular Consequences of Septic Shock</td>
<td>NIGMS</td>
<td>$9,838</td>
<td>$5,066</td>
</tr>
<tr>
<td>Name</td>
<td>Title</td>
<td>Institute</td>
<td>NHLBI</td>
<td>Direct Costs</td>
</tr>
<tr>
<td>------</td>
<td>-------</td>
<td>-----------</td>
<td>-------</td>
<td>--------------</td>
</tr>
<tr>
<td>Chang, Chung-Chou</td>
<td>The Role of Physician Networks in the Adoption of New Prescription Drugs</td>
<td>NHLBI</td>
<td>$15,461</td>
<td>$8,349</td>
</tr>
<tr>
<td>Conroy, Margaret Baldwi</td>
<td>Mind the Kidneys</td>
<td>Stanford University/ NIDDK</td>
<td>$1,000</td>
<td>$0</td>
</tr>
<tr>
<td>Conroy, Margaret Baldwi</td>
<td>Maintaining Activity and Nutrition Through Technology-Assisted Innovation in Primary Care (Maintain-PC)</td>
<td>Agency for Healthcare Research and Quality</td>
<td>$281,356</td>
<td>$151,933</td>
</tr>
<tr>
<td>Conroy, Margaret Baldwi</td>
<td>Functional Assessment Screening Patient Reported Information: Fast-PRI</td>
<td>University of Utah/ AHRQ</td>
<td>$149,850</td>
<td>$67,418</td>
</tr>
<tr>
<td>Conroy, Margaret Baldwi</td>
<td>Systolic Blood Pressure Intervention Trial (SPRINT)</td>
<td>University of Utah / NIH</td>
<td>$231,380</td>
<td>$57,845</td>
</tr>
<tr>
<td>Conroy, Margaret Baldwi</td>
<td>SPRINT - Factors Affecting Atherosclerosis Study (FAST)</td>
<td>University of Utah / NIDDK</td>
<td>$20,947</td>
<td>$2,070</td>
</tr>
<tr>
<td>Davis, ESA</td>
<td>Comparative Effectiveness of Post-Discharge Strategies for Hospitalized Smokers</td>
<td>Massachusetts General Hospital / NHLBI</td>
<td>$33,714</td>
<td>$17,363</td>
</tr>
<tr>
<td>Davis, ESA</td>
<td>Comparison of Two Screening Strategies for Gestational Diabetes</td>
<td>NICHD</td>
<td>$347,602</td>
<td>$101,548</td>
</tr>
<tr>
<td>Davis, ESA</td>
<td>Evaluating New Nicotine Standards for Cigarettes - Project 1</td>
<td>NIDA</td>
<td>$28,603</td>
<td>$14,731</td>
</tr>
<tr>
<td>Davis, ESA</td>
<td>Cancer Center Support Grant - Tobacco Supplementation</td>
<td>NCI</td>
<td>$7,410</td>
<td>$4,001</td>
</tr>
<tr>
<td>Elnicki, Michael</td>
<td>ProACT - Procalcitonin Antibiotic Consensus Trial</td>
<td>NIGMS</td>
<td>$4,149</td>
<td>$1,153</td>
</tr>
<tr>
<td>Fine, Michael J.</td>
<td>Waterpipe Tobacco Smoking Among U.S. Adolescents and Young Adults</td>
<td>NCI</td>
<td>$21,346</td>
<td>$5,507</td>
</tr>
<tr>
<td>Fine, Michael J.</td>
<td>Core Plus Option_A_C_Influenza Surveillance and Vaccine Effectiveness in a Large Diverse Network</td>
<td>Center for Disease Control</td>
<td>$3,684</td>
<td>$1,897</td>
</tr>
<tr>
<td>Fischer, Gary</td>
<td>The Role of Physician Networks in the Adoption of New Prescription Drugs</td>
<td>NHLBI</td>
<td>$36,106</td>
<td>$19,496</td>
</tr>
<tr>
<td>Name</td>
<td>Project Description</td>
<td>Funding Agency</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>--------------</td>
<td>------------------------------------------------------------------------------------</td>
<td>---------------------------------------------</td>
<td>--------------</td>
<td>----------------</td>
</tr>
<tr>
<td>GORDON, ADAM</td>
<td>THE INFLUENCE OF FORMULARY MANAGEMENT STRATEGIES ON OPIOID MEDICATION USE AMOUNT -</td>
<td>CENTER FOR DISEASE CONTROL</td>
<td>$19,058</td>
<td>$10,291</td>
</tr>
<tr>
<td></td>
<td>PATIENT AND PRESCRIBERS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HANMER, JANEL</td>
<td>QUALITY ADJUSTED LIFE EXPECTANCY ESTIMATES FOR THE US GENERAL POPULATION</td>
<td>NIA</td>
<td>$90,473</td>
<td>$35,866</td>
</tr>
<tr>
<td>ZELSNACK</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HAUSMANN, LESLIE</td>
<td>LINKS OF COMMUNAL COPING IN COUPLES WITH DIABETES TO SELF-CARE BEHAVIOR</td>
<td>CARNEGIE-MELLON UNIVERSITY / NIDDK</td>
<td>$5,192</td>
<td>$2,673</td>
</tr>
<tr>
<td>KAPOOR, WISHWA</td>
<td>UNIVERSITY OF PITTSBURGH CLINICAL AND TRANSLATIONAL SCIENCE INSTITUTE (KL2)</td>
<td>NCATS</td>
<td>$1,821,761</td>
<td>$145,655</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KAPOOR, WISHWA</td>
<td>THE UNIVERSITY OF PITTSBURGH PCOR CAREER DEVELOPMENT PROGRAM</td>
<td>AGENCY FOR HEALTHCARE RESEARCH AND QUALITY</td>
<td>$704,014</td>
<td>$56,213</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KAPOOR, WISHWA</td>
<td>UNIVERSITY OF PITTSBURGH CLINICAL AND TRANSLATIONAL SCIENCE INSTITUTE (RESEARCH EDUCATION CORE)</td>
<td>NCATS</td>
<td>$1,668,995</td>
<td>$602,888</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KAPOOR, WISHWA</td>
<td>UNIVERSITY OF PITTSBURGH CLINICAL AND TRANSLATIONAL SCIENCE INSTITUTE (TL1)</td>
<td>NCATS</td>
<td>$206,310</td>
<td>$10,984</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KRAEMER, KEVIN</td>
<td>COMPARATIVE EFFECTIVENESS OF ALCOHOL AND DRUG TREATMENT IN HIV-INFECTED</td>
<td>NIAAA</td>
<td>$318,528</td>
<td>$79,947</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KRAEMER, KEVIN</td>
<td>CONNECT TO QUIT: COORDINATED CARE FOR SMOKING CESSATION AMONG LOW INCOME VETERANS</td>
<td>VANDERBILT UNIVERSITY/ NCI</td>
<td>$81,846</td>
<td>$44,197</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LANDSITTEL, DOUGLAS</td>
<td>EXPANDING NATIONAL CAPACITY IN PCOR THROUGH TRAINING (ENACT)</td>
<td>AGENCY FOR HEALTHCARE RESEARCH AND QUALITY</td>
<td>$274,934</td>
<td>$110,642</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LANDSITTEL, DOUGLAS</td>
<td>MECHANISMS LINKING HOT FLASHES TO CARDIOVASCULAR RISK</td>
<td>NHLBI</td>
<td>$5,535</td>
<td>$2,851</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LANDSITTEL, DOUGLAS</td>
<td>IMMUNE AIRWAY-EPITHELIAL INTERACTIONS IN STEROID-REFRACTORY SEVERE ASTHMA - CORE A</td>
<td>NIAID</td>
<td>$9,484</td>
<td>$5,121</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LANDSITTEL, DOUGLAS</td>
<td>CONTRIBUTION OF FOLLICULAR HELPER T CELL (TFH) AND OF TREG TO DSA GENERATION AFTER KIDNEY TRANSPLANTATION</td>
<td>NIAID</td>
<td>$2,185</td>
<td>$1,181</td>
</tr>
</tbody>
</table>

http://www.dom.pitt.edu/dgim
<table>
<thead>
<tr>
<th>Name</th>
<th>Project Description</th>
<th>Funding Agency(s)</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>LANDSITTEL, DOUGLAS</td>
<td>CONSORTIUM FOR RADIOLOGIC IMAGING IN POLYCYSTIC KIDNEY DISEASE (CRISP)</td>
<td>NIDDK</td>
<td>$109,830</td>
<td>$28,802</td>
</tr>
<tr>
<td>MCNEIL, MELISSA ANN</td>
<td>BUILDING INTERDISCIPLINARY RESEARCH CAREERS IN WOMENS HEALTH IN PITTSBURGH</td>
<td>MAGEE WOMENS HOSPITAL/NICHD</td>
<td>$8,854</td>
<td>$708</td>
</tr>
<tr>
<td>MCTIGUE, KATHLEEN MARY</td>
<td>SELF-MANAGEMENT VIA HEALTH KIOSK BY COMMUNITY-RESIDING OLDER ADULTS</td>
<td>AGENCY FOR HEALTHCARE RESEARCH AND QUALITY</td>
<td>$4,189</td>
<td>$2,262</td>
</tr>
<tr>
<td>MCTIGUE, KATHLEEN MARY</td>
<td>MINDING GOALS: AN INTERNET-ASSISTED MIND-BODY-BEHAVIOR PROGRAM FOR BLOOD PRESSURE CONTROL</td>
<td>NHLBI</td>
<td>$191,027</td>
<td>$88,404</td>
</tr>
<tr>
<td>MORONE, NATALIA E.</td>
<td>DISSEMINATION OF A DIABETES PREVENTION PROGRAM AMONG MEDICARE ELIGIBLE RETIREEES</td>
<td>NIDDK</td>
<td>$11,212</td>
<td>$5,774</td>
</tr>
<tr>
<td>MYASKOVSKY, LARISSA</td>
<td>INCREASING EQUITY IN TRANSPLANT EVALUATION AND LIVING DONOR KIDNEY TRANSPLANTATION</td>
<td>NIDDK</td>
<td>$296,935</td>
<td>$119,078</td>
</tr>
<tr>
<td>PARK, SEO YOUNG</td>
<td>UTILIZATION OF QUANTITATIVE ECG MEASURES DURING CARDIOPULMONARY RESUSCITATION</td>
<td>NHLBI</td>
<td>$6,144</td>
<td>$3,318</td>
</tr>
<tr>
<td>PARK, SEO YOUNG</td>
<td>IMPLICATIONS AND STABILITY OF CLINICAL AND MOLECULAR PHENOTYPES OF SEVERE ASTHMA</td>
<td>NHLBI</td>
<td>$12,288</td>
<td>$6,328</td>
</tr>
<tr>
<td>PARK, SEO YOUNG</td>
<td>IMMUNE AIRWAY-EPITHELIAL INTERACTIONS IN STEROID-REFRACTORY SEVERE ASTHMA - PROJECT 2</td>
<td>NIAID</td>
<td>$12,325</td>
<td>$6,655</td>
</tr>
<tr>
<td>PARK, SEO YOUNG</td>
<td>SPLUNC1 IN SEVERE ASTHMA</td>
<td>NHLBI</td>
<td>$6,037</td>
<td>$3,260</td>
</tr>
<tr>
<td>PARK, SEO YOUNG</td>
<td>ASTHMANET: PHENOTYPIC INFLUENCES ON ASTHMA TREATMENTS</td>
<td>NHLBI</td>
<td>$5,849</td>
<td>$3,012</td>
</tr>
<tr>
<td>PRIMACK, BRIAN</td>
<td>SPONSORED HEALTH IT AND EVIDENCE-BASED PRESCRIBING AMONG MEDICAL RESIDENTS</td>
<td>AGENCY FOR HEALTHCARE RESEARCH AND QUALITY</td>
<td>$100,133</td>
<td>$49,849</td>
</tr>
<tr>
<td>PRIMACK, BRIAN</td>
<td>ALCOHOL MARKETING AND UNDERAGE DRINKING</td>
<td>DARTMOUTH COLLEGE/NIAAA</td>
<td>$9,426</td>
<td>$5,090</td>
</tr>
<tr>
<td>PRIMACK, BRIAN</td>
<td>PREVALENCE, TRENDS, AND CORRELATES OF WATERPIPE TOBACCO SMOKING AMONG U.S. UNIVERSITY STUDENTS</td>
<td>NCI</td>
<td>$86,570</td>
<td>$44,002</td>
</tr>
<tr>
<td>Name</td>
<td>Project Title</td>
<td>Granting Agency</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-------------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>--------------</td>
<td>----------------</td>
</tr>
<tr>
<td>PRIMACK, BRIAN</td>
<td>IMPROVING U.S. HEALTH POLICY REGARDING WATER-PIPE TOBACCO SMOKING</td>
<td>NCI</td>
<td>$96,808</td>
<td>$52,276</td>
</tr>
<tr>
<td>PRIMACK, BRIAN</td>
<td>EVALUATING NEW NICOTINE STANDARDS FOR CIGARETTES - PROJECT 1</td>
<td>NIDA</td>
<td>$11,255</td>
<td>$6,078</td>
</tr>
<tr>
<td>ROLLMAN, BRUCE</td>
<td>ONLINE TREATMENTS FOR MOOD AND ANXIETY DISORDERS IN PRIMARY CARE</td>
<td>NIMH</td>
<td>$226,740</td>
<td>$90,954</td>
</tr>
<tr>
<td>ROLLMAN, BRUCE</td>
<td>BLENDED COLLABORATIVE CARE FOR HEART FAILURE AND CO-MORBID DEPRESSION</td>
<td>NHLBI</td>
<td>$1,037,662</td>
<td>$434,869</td>
</tr>
<tr>
<td>ROLLMAN, BRUCE</td>
<td>INTERNET SUPPORT GROUPS: ISOLATING AND IMPROVING PATHWAYS TOWARDS MENTAL HEALTH</td>
<td>CARNEGIE-MELLON UNIVERSITY/ NIMH</td>
<td>$5,972</td>
<td>$3,225</td>
</tr>
<tr>
<td>ROLLMAN, BRUCE</td>
<td>PRAGMATIC TRIAL OF BEHAVIORAL INTERVENTIONS FOR INSOMNIA IN HYPERTENSIVE PATIENTS</td>
<td>NHLBI</td>
<td>$28,378</td>
<td>$15,324</td>
</tr>
<tr>
<td>ROLLMAN, BRUCE</td>
<td>INTERNET PSYCHOTHERAPY FOR BIPOLAR DISORDERS IN PRIMARY CARE</td>
<td>NIMH</td>
<td>$5,628</td>
<td>$3,039</td>
</tr>
<tr>
<td>RUBIO, DORIS</td>
<td>PROFESSIONAL SKILLS DEVELOPMENT FOR MENTORS</td>
<td>BOSTON COLLEGE/ NIGMS</td>
<td>$219,734</td>
<td>$17,579</td>
</tr>
<tr>
<td>RUBIO, DORIS</td>
<td>UNIVERSITY OF PITTSBURGH CLINICAL AND TRANSLATIONAL SCIENCE INSTITUTE - EVALUATION CORE</td>
<td>NCRR</td>
<td>$86,636</td>
<td>$44,618</td>
</tr>
<tr>
<td>RUBIO, DORIS</td>
<td>IDENTIFYING GENETIC MODIFIERS OF SEVERITY IN ADPKD - DATABASE COORDINATING CENTER</td>
<td>MAYO FOUNDATION/ NIDDK</td>
<td>$86,958</td>
<td>$3,042</td>
</tr>
<tr>
<td>RUBIO, DORIS</td>
<td>PITTSBURGH OLDER AMERICANS INDEPENDENCE CENTER</td>
<td>NIA</td>
<td>$22,298</td>
<td>$6,912</td>
</tr>
<tr>
<td>RUBIO, DORIS</td>
<td>LEADING EMERGING AND DIVERSE SCIENTISTS TO SUCCESS (LEADS)</td>
<td>NIGMS</td>
<td>$492,594</td>
<td>$39,407</td>
</tr>
<tr>
<td>SMITH, KENNETH</td>
<td>FUTURE OF INFLUENZA VACCINE STRATEGIES GIVEN INTERFERENCE AND CHOICE</td>
<td>NIGMS</td>
<td>$53,184</td>
<td>$28,719</td>
</tr>
<tr>
<td>SMITH, KENNETH</td>
<td>HEALTH PROMOTION AND DISEASE PREVENTION RESEARCH CENTER</td>
<td>CENTER FOR DISEASE CONTROL</td>
<td>$5,628</td>
<td>$3,039</td>
</tr>
<tr>
<td>SMITH, KENNETH</td>
<td>A VACCINATION SOP TOOLKIT IN DIVERSE PRACTICES IMPLEMENTED &amp; TESTED WITH RE-AIM</td>
<td>CDC</td>
<td>$33,764</td>
<td>$17,388</td>
</tr>
<tr>
<td>SMITH, KENNETH</td>
<td>EFFICACY OF TYMPANOSTOMY TUBES FOR CHILDREN WITH RECURRENT ACUTE OTITIS MEDIA</td>
<td>NIDCD</td>
<td>$4,502</td>
<td>$2,431</td>
</tr>
<tr>
<td>Name</td>
<td>Project Description</td>
<td>Funded Agency</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>--------------------</td>
<td>--------------------------------------------------------------------------------------</td>
<td>---------------</td>
<td>---------------</td>
<td>----------------</td>
</tr>
<tr>
<td><strong>SMITH, KENNETH</strong></td>
<td>Analyzing Adult Pneumococcal Vaccination Implementation in the Underserved</td>
<td>NIAID</td>
<td>$86,137</td>
<td>$46,514</td>
</tr>
<tr>
<td><strong>SWITZER, GALEN</strong></td>
<td>Improving the Availability of Younger Unrelated Hematopoietic Stem Cell Donors</td>
<td>NHLBI</td>
<td>$81,492</td>
<td>$34,401</td>
</tr>
<tr>
<td><strong>TUDORASCU, DANA</strong></td>
<td>Amyloid Pathology and Cognition in Normal Elderly</td>
<td>NIA</td>
<td>$10,156</td>
<td>$1,913</td>
</tr>
<tr>
<td><strong>TUDORASCU, DANA</strong></td>
<td>Imaging Pathophysiology in Aging and Neurodegeneration - IMS Core C</td>
<td>NIA</td>
<td>$1,519</td>
<td>$820</td>
</tr>
<tr>
<td><strong>TUDORASCU, DANA</strong></td>
<td>Immune Airway-Epithelial Interactions in Steroid-Refactory Severe Asthma - Project 1</td>
<td>NIAID</td>
<td>$12,028</td>
<td>$6,495</td>
</tr>
<tr>
<td><strong>TUDORASCU, DANA</strong></td>
<td>In Vivo Characterization of the PET Pharmacokinetic Properties of T807 in Humans</td>
<td>NIA</td>
<td>$4,302</td>
<td>$2,323</td>
</tr>
<tr>
<td><strong>TUDORASCU, DANA</strong></td>
<td>Resilience to Mobility Impairment: Neural Correlates and Protective Factors</td>
<td>NIA</td>
<td>$23,441</td>
<td>$12,072</td>
</tr>
<tr>
<td><strong>TUDORASCU, DANA</strong></td>
<td>Mapping of Post-Concussive White Matter Injuries Utilizing Symptom Clusters</td>
<td>NIBIB</td>
<td>$6,009</td>
<td>$3,245</td>
</tr>
<tr>
<td><strong>YABES, JONATHAN</strong></td>
<td>Cognitive Enhancement Therapy for Adult Autism Spectrum Disorder</td>
<td>NIMH</td>
<td>$5,132</td>
<td>$2,771</td>
</tr>
<tr>
<td><strong>YABES, JONATHAN</strong></td>
<td>Efficacy of Conversation Training Therapy</td>
<td>NIDCD</td>
<td>$2,626</td>
<td>$1,418</td>
</tr>
<tr>
<td><strong>YU, LAN</strong></td>
<td>Role of Romantic Relationships in the Sexual Behavior of Obese and Non-Obese Girls</td>
<td>NICH</td>
<td>$16,965</td>
<td>$9,161</td>
</tr>
<tr>
<td><strong>YU, LAN</strong></td>
<td>Change-Sensitive Measurement of Emotion Dysregulation in ASD</td>
<td>NICH</td>
<td>$19,831</td>
<td>$10,709</td>
</tr>
<tr>
<td><strong>YU, LAN</strong></td>
<td>Knee Cat Study - Validity of PROMIS Pain Interference and Physical Functions Cats</td>
<td>NIAMS</td>
<td>$14,666</td>
<td>$7,552</td>
</tr>
<tr>
<td><strong>ZICKMUND, SUSAN</strong></td>
<td>Feasibility of the Von Willebrand Disease Minimize Trial</td>
<td>NHLBI</td>
<td>$13,262</td>
<td>$1,366</td>
</tr>
</tbody>
</table>
### General Internal Medicine

#### FY 2015-2016

**Department of Medicine**

[http://www.dom.pitt.edu/dgim](http://www.dom.pitt.edu/dgim)

<table>
<thead>
<tr>
<th>Name</th>
<th>Project Description</th>
<th>Funding Agency</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Zickmund, Susan</strong></td>
<td>Facilitating HCV Treatment Through Tailored Prenatal Care For HCV Infected, Substance Using Pregnant Women</td>
<td>Magee Women's Hospital/NIH</td>
<td>$43,244</td>
<td>$2,859</td>
</tr>
<tr>
<td><strong>Zickmund, Susan</strong></td>
<td>Glucose to Goal: A Model to Support Diabetes Management in Primary Care</td>
<td>NIDDK</td>
<td>$6,270</td>
<td>$963</td>
</tr>
<tr>
<td><strong>Zimmer, Shanta</strong></td>
<td>Monitoring Cause-Specific School Absenteeism for Estimating Community Wide Influenza Transmission in Pittsburgh</td>
<td>Johns Hopkins University/NIH</td>
<td>$252,254</td>
<td>$136,217</td>
</tr>
</tbody>
</table>

**Total Public Health Service**

| Total Public Health Service | $10,917,208 | $3,317,363 |

**FEDERAL**

<table>
<thead>
<tr>
<th>Name</th>
<th>Project Description</th>
<th>Funding Agency</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Abebe, Kaleab</strong></td>
<td>Metformin as a Novel Therapy for Autosomal Dominant Polycystic Kidney Disease</td>
<td>Department of Defense</td>
<td>$103,889</td>
<td>$28,425</td>
</tr>
</tbody>
</table>

**Total Federal**

| Total Federal | $103,889 | $28,425 |

**VETERANS ADMINISTRATION**

<table>
<thead>
<tr>
<th>Name</th>
<th>Project Description</th>
<th>Funding Agency</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Borrero, Sonya</strong></td>
<td>Examining Contraceptive Use and Unmet Need Among Women Veterans</td>
<td>VA HSR&amp;D</td>
<td>$263,378</td>
<td>$0</td>
</tr>
<tr>
<td><strong>Broyles, Lauren</strong></td>
<td>Improving Detection and Management of Alcohol Misuse Among VA Inpatients</td>
<td>VA HSR&amp;D</td>
<td>$33,162</td>
<td>$0</td>
</tr>
<tr>
<td><strong>Fine, Michael J.</strong></td>
<td>Center for Health Equity Research and Promotion</td>
<td>VA HSR&amp;D</td>
<td>$553,000</td>
<td>$0</td>
</tr>
<tr>
<td><strong>Fine, Michael J.</strong></td>
<td>Center for Health Equity Research and Promotion - Professional Development Supplement</td>
<td>VA HSR&amp;D</td>
<td>$50,820</td>
<td>$0</td>
</tr>
<tr>
<td><strong>Fine, Michael J.</strong></td>
<td>Cherp Administrative Supplement</td>
<td>VA HSR&amp;D</td>
<td>$1,105</td>
<td>$0</td>
</tr>
<tr>
<td><strong>Fine, Michael J.</strong></td>
<td>Primary Care Mental Health Integration Evaluation (Lasky)</td>
<td>VA Office of Mental Health Services</td>
<td>$104,502</td>
<td>$0</td>
</tr>
<tr>
<td><strong>Gellad, Walid</strong></td>
<td>Supplemental Analyses for Safety of Opioid Use Among Veterans Receiving Care in Multiple Health Systems</td>
<td>VA PBM</td>
<td>$51,314</td>
<td>$0</td>
</tr>
</tbody>
</table>

[http://www.dom.pitt.edu/dgim](http://www.dom.pitt.edu/dgim)
<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Funding Source</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>GELLAD, WALID</td>
<td>SAFETY OF OPIOID USE AMONG VETERANS RECEIVING CARE IN MULTIPLE HEALTH SYSTEMS</td>
<td>VA HSR&amp;D</td>
<td>$325,231</td>
<td>$0</td>
</tr>
<tr>
<td>GELLAD, WALID</td>
<td>STORM IMPLEMENTATION PROGRAM EVALUATION</td>
<td>VA HSR&amp;D</td>
<td>$205,382</td>
<td>$0</td>
</tr>
<tr>
<td>GOOD, C. BERNIE</td>
<td>CENTER FOR MEDICATION SAFETY</td>
<td>VA PBM</td>
<td>$87,071</td>
<td>$0</td>
</tr>
<tr>
<td>GORDON, ADAM</td>
<td>ADDICTION TRIAGE FOR HOMELESS - ENHANCING VA MEDICAL HOMES</td>
<td>VA NATIONAL HOMELESS PACT PROGRAM</td>
<td>$149,000</td>
<td>$0</td>
</tr>
<tr>
<td>GORDON, ADAM</td>
<td>VA INTERPROFESSION ADVANCED FELLOWSHIP IN ADDICTION TREATMENT COORDINATING CENTER</td>
<td>VA OAA</td>
<td>$100,000</td>
<td>$0</td>
</tr>
<tr>
<td>GORDON, ADAM</td>
<td>VA INTERPROFESSION ADVANCED FELLOWSHIP IN ADDICTION TREATMENT</td>
<td>VA OAA</td>
<td>$70,000</td>
<td>$0</td>
</tr>
<tr>
<td>GORDON, ADAM</td>
<td>VISN4 HOMELESS INITIATIVE</td>
<td>VISN4</td>
<td>$50,000</td>
<td>$0</td>
</tr>
<tr>
<td>GORDON, ADAM</td>
<td>PRIMARY CARE QUALITY AND HOMELESS SERVICE TAILORING</td>
<td>VA HSR&amp;D</td>
<td>$5,263</td>
<td>$0</td>
</tr>
<tr>
<td>HAUSMANN, LESLIE</td>
<td>STAYING POSITIVE: AN INTERVENTION TO REDUCE OSTEOARTHRITIS PAIN DISPARITIES</td>
<td>VA HSR&amp;D</td>
<td>$432,683</td>
<td>$0</td>
</tr>
<tr>
<td>HAUSMANN, LESLIE</td>
<td>IMPACT OF FREQUENT ATTENDERS ON VETERAN ACCESS TO CARE IN OUTPATIENT SERVICES</td>
<td>VA HSR&amp;D</td>
<td>$7,173</td>
<td>$0</td>
</tr>
<tr>
<td>MYASKOVSKY, LARISSA</td>
<td>VETERANS ENGINEERING RESOURCE CENTER</td>
<td>VERC</td>
<td>$120,466</td>
<td>$0</td>
</tr>
<tr>
<td>MYASKOVSKY, LARISSA</td>
<td>SUPPLEMENTAL SUPPORT FOR HSR&amp;D FELLOWS</td>
<td>VA HSR&amp;D</td>
<td>$4,794</td>
<td>$0</td>
</tr>
<tr>
<td>SWITZER, GALEN</td>
<td>ADVANCED FELLOWSHIP IN HEALTH SERVICES RESEARCH</td>
<td>VA OAA</td>
<td>$55,000</td>
<td>$0</td>
</tr>
<tr>
<td>ZICKMUND, SUSAN</td>
<td>UNDERSTANDING WOMEN'S DISPARITIES IN SATISFACTION WITH VA HEALTH CARE (DISC WOMEN)</td>
<td>VA HSR&amp;D</td>
<td>$216,346</td>
<td>$0</td>
</tr>
<tr>
<td>ZICKMUND, SUSAN</td>
<td>DROPOUT FROM EVIDENCE-BASED THERAPY FOR PTSD: REASONS AND POTENTIAL INTERVENTIONS</td>
<td>VA HSR&amp;D</td>
<td>$7,407</td>
<td>$0</td>
</tr>
<tr>
<td>ZICKMUND, SUSAN</td>
<td>IMPROVING PAIN-RELATED OUTCOMES FOR VETERANS</td>
<td>VA QUERI</td>
<td>$2,715</td>
<td>$0</td>
</tr>
<tr>
<td><strong>TOTAL VETERANS ADMINISTRATION</strong></td>
<td></td>
<td></td>
<td><strong>$2,948,901</strong></td>
<td>$0</td>
</tr>
<tr>
<td>SOCIETY AND FOUNDATIONS</td>
<td>DIRECT COSTS</td>
<td>INDIRECT COSTS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------</td>
<td>--------------</td>
<td>----------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ARNOLD, ROBERT M.</td>
<td>$100,000</td>
<td>$0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barnato, Amber E.</td>
<td>$44,653</td>
<td>$5,357</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fine, Michael J.</td>
<td>$13,423</td>
<td>$6,913</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hess, Rachel</td>
<td>$804,398</td>
<td>$321,758</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Landsitte, Douglas</td>
<td>$156,097</td>
<td>$62,439</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mctigue, Kathleen Mary</td>
<td>$103,268</td>
<td>$41,307</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mctigue, Kathleen Mary</td>
<td>$68,261</td>
<td>$17,791</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mctigue, Kathleen Mary</td>
<td>$599,574</td>
<td>$233,010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mctigue, Kathleen Mary</td>
<td>$380,367</td>
<td>$152,147</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mctigue, Kathleen Mary</td>
<td>$2,194</td>
<td>$878</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mctigue, Kathleen Mary</td>
<td>$50,000</td>
<td>$20,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Morone, Natalia E.</td>
<td>$7,815</td>
<td>$3,126</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

http://www.dom.pitt.edu/dgim
<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Institution/Program</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCHELL, JANE</td>
<td>A COMMUNICATION CURRICULUM ON ADVANCE CARE PLANNING FOR NEPHROLOGY FELLOWS</td>
<td>ASN FOUNDATION FOR KIDNEY RESEARCH</td>
<td>$50,000</td>
<td>$0</td>
</tr>
<tr>
<td>SWITZER, GALEN</td>
<td>THE ROLE OF PROSPECTIVE ALTRUISM IN STEM CELL DONATION</td>
<td>GEORGETOWN UNIVERSITY</td>
<td>$8,891</td>
<td>$1,194</td>
</tr>
<tr>
<td>SWITZER, GALEN</td>
<td>THE ROLE OF ETHNICITY IN UNRELATED POTENTIAL HSC DONOR DECISIONS: AN INTERNATIONAL INVESTIGATION OF A DIVERSE GROUP OF UK AND US POTENTIAL DONORS</td>
<td>ANTHONY NOLAN TRUST</td>
<td>$77,366</td>
<td>$3,868</td>
</tr>
<tr>
<td>SWITZER, GALEN</td>
<td>EVALUATION OF A NEW HIGH-PRIORITY DONOR MESSAGING</td>
<td>NATIONAL MARROW DONOR PROGRAM</td>
<td>$54,618</td>
<td>$13,654</td>
</tr>
<tr>
<td>TABAS, GARY</td>
<td>VIRTUAL PATIENT CASES</td>
<td>AMERICAN COLLEGE OF PHYSICIANS</td>
<td>$18,055</td>
<td>$0</td>
</tr>
<tr>
<td>TUDORASCU, DANA</td>
<td>LUMBAR SPINAL STENOSIS</td>
<td>PATIENT-CENTERED OUTCOMES RESEARCH INSTITUTE</td>
<td>$12,302</td>
<td>$4,921</td>
</tr>
<tr>
<td>YABES, JONATHAN</td>
<td>BLOOD PRESSURE IN DIALYSIS - THE IMPACT OF BLOOD PRESSURE CONTROL ON SLEEP AMNEA AND SLEEP QUALITY (BID-SLEEP STUDY)</td>
<td>AMERICAN HEART ASSOCIATION</td>
<td>$6,106</td>
<td>$610</td>
</tr>
<tr>
<td>YU, LAN</td>
<td>MEASURING THE CONTEXT OF HEALING: USING PROMIS IN CHRONIC PAIN</td>
<td>PATIENT-CENTERED OUTCOMES RESEARCH INSTITUTE</td>
<td>$10,370</td>
<td>$4,148</td>
</tr>
<tr>
<td>YU, LAN</td>
<td>WVU PROMIS</td>
<td>WEST VIRGINIA UNIVERSITY</td>
<td>$3,149</td>
<td>$945</td>
</tr>
<tr>
<td>ZICKMUND, SUSAN</td>
<td>PATIENT CENTERED COMPREHENSIVE MEDICATION ADHERENCE MANAGEMENT SYSTEM AS A MEANS TO IMPROVING ADHERENCE WITH HYDROXYUREA FOR PATIENTS WITH SICKLE CELL</td>
<td>EMORY UNIVERSITY</td>
<td>$35,210</td>
<td>$14,084</td>
</tr>
<tr>
<td>ZICKMUND, SUSAN</td>
<td>OPTIMIZING BEHAVIORAL HEALTH OUTCOMES BY FOCUSING ON OUTCOMES THAT MATTER MOST FOR ADULTS WITH SERIOUS MENTAL ILLNESS</td>
<td>UNIVERSITY OF PITTSBURGH MEDICAL CENTER</td>
<td>$73,143</td>
<td>$29,566</td>
</tr>
</tbody>
</table>

**TOTAL SOCIETY AND FOUNDATIONS**

$2,679,260  $937,716
<table>
<thead>
<tr>
<th>INDUSTRY</th>
<th>DIRECT COSTS</th>
<th>INDIRECT COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NATURAL HISTORY OF</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CLOSTRIDIUM DIFFICILE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>INFECTION IN INFLAMMATORY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>BOWEL DISEASE PATIENTS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CUBIST PHARMACEUTICALS</strong></td>
<td>$35,924</td>
<td>$6,262</td>
</tr>
<tr>
<td><strong>TOTAL INDUSTRY</strong></td>
<td>$35,924</td>
<td>$6,262</td>
</tr>
<tr>
<td><strong>PUBLIC HEALTH SERVICE</strong></td>
<td>$10,917,208</td>
<td>$3,317,363</td>
</tr>
<tr>
<td><strong>FEDERAL</strong></td>
<td>$103,889</td>
<td>$28,425</td>
</tr>
<tr>
<td><strong>VETERANS ADMINISTRATION</strong></td>
<td>$2,948,901</td>
<td>$0</td>
</tr>
<tr>
<td><strong>SOCIETY AND FOUNDATIONS</strong></td>
<td>$2,679,260</td>
<td>$937,716</td>
</tr>
<tr>
<td><strong>INDUSTRY</strong></td>
<td>$35,924</td>
<td>$6,262</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>$16,685,182</td>
<td>$4,289,766</td>
</tr>
</tbody>
</table>
TEACHING ACTIVITIES

DGIM faculty members have extensive roles in all phases of the education of medical students. Division faculty members hold major administrative roles, teach and direct courses, and precept and mentor students throughout their four years of medical school. This year, three faculty members received awards from residents for outstanding teaching. Eighteen faculty members within the DGIM are members of the Academy of Master Educators, an elected five-year honor that signifies excellence in education. The DGIM faculty generated nearly 18,000 education credit units for the School of Medicine. In addition, DGIM members continue to direct and serve on the Advisory Board for the Clinical Science Training Program, which enrolled 12 students in FY15.

The Internal Medicine Residency Training Program continues to excel in recruitment and curricular innovations. This was the third year of the Leadership and Discovery Program (LEAD) program, which provides a structured curriculum for residents at UPMC Presbyterian to learn and develop the skills necessary to design and implement academic projects. The Internal Medicine Residency prioritizes individualized training within the various tracks and programs that the DGIM offers, including the Geriatrics Track, the Global Health Track, the Women’s Health Track, and the Clinical Scientist Track. Division faculty continue to focus on a number of priorities to maintain the excellence of the training program, including developing innovative teaching methods, promoting continuous healing relationships, developing effective communication, using evidence-based practice, enhancing patient safety, improving chronic disease management and preventive care, and developing evaluation methods and competencies.

The Division continues to expand the education programs of the ICRE, including programs for medical students, residents, doctoral students, and other graduate students. This year, the ICRE had 11 students in the PhD in Clinical and Translational Science program, 58 students in the Master of Clinical Research program, 50 in the Certificate of Clinical Research program, 26 in the Master of Medical Education program, and nine in the Certificate of Medical Education program.
Teaching Honors and Awards

Kaleab Abebe PhD
- Co-Director, Career Education and Enhancement for Health Care Research Diversity (CEED) Program, Institute for Clinical Research Education, University of Pittsburgh, 2012-present
- Clinical Trials Track Director, Masters in Clinical Research, Institute for Clinical Research Education, University of Pittsburgh, 2015-present
- Guest Lecturer, Comparative Effectiveness Research, Institute for Clinical Research Education, University of Pittsburgh, 2015
- Guest Lecturer, Correlated Data Analysis, Institute for Clinical Research Education, University of Pittsburgh, 2016
- Invited Lecture, Clinical Trials: Design, Conduct, & Analysis, University of Pittsburgh Surgical Outcomes Research Center, 2016
- Course Director, Fundamentals of Clinical Trials, Institute for Clinical Research Education, 2016-present
- Course Director, Statistical Methods and Issues in Clinical Trials, Institute for Clinical Research Education, University of Pittsburgh, 2016-present

Eric Anish MD
- Member, Academy of Master Educators, University of Pittsburgh School of Medicine, 2012-present
- Director, Sports/Musculoskeletal Medicine Elective, Internal Medicine Residency Program, UPMC Shadyside, 2013-present
- Workshop Director, Lecturer, and Instructor, Musculoskeletal Examination Skills, Combined Ambulatory Medicine Clerkship, University of Pittsburgh School of Medicine, 2015-present
- Instructor, Adult Physical Diagnosis, University of Pittsburgh School of Medicine, 2015-present
- Preceptor, Combined Ambulatory Medicine Clerkship, University of Pittsburgh School of Medicine, 2015-present
- Preceptor, Internal Medicine Residents' Clinic, Internal Medicine Residency Program, Shea Medical Center, UPMC Shadyside, 2015-present
- Invited Lecturer, Hypertrophic Cardiomyopathy, Seminar in Sports Medicine, Department of Sports Medicine and Nutrition, University of Pittsburgh School of Health and Rehabilitation Sciences, 2016

Robert Arnold MD
- Academy of Master Educators, University of Pittsburgh School of Medicine, 2006-present
- Co-Director, Teaching-to-Teach Communication course for CETP, 2015-2016
- Facilitator, Institute of Medicine Roundtable on Health Literacy, Role of Health Literacy in Palliative Care, Washington, D.C., July 9, 2015
- Facilitator, EmergencyTalk, Three-Day Communication Skills Course for Physicians and Faculty, New York, NY, September 8-10, 2015
- Facilitator, CardioTalk, Three-Day Communication Skills Course for UPMC Cardiology Fellows and Attending Physicians, Pittsburgh, PA, September 14-16, 2015
- Facilitator, PaliTalk Teach, Two-Day Communication Skills Teaching Methods for Palliative Care Faculty, Pittsburgh, PA, September 21-22, 2015
- Presenter, Palliative Care, UPMC Health Plan Conclave, Nemacolin, PA, September 25, 2015
- Presenter, Advance Directives, RAVEN, Pittsburgh, PA, September 30, 2015
- Guest Lecturer, Why Can't We All Get Along? Dealing with Conflict with Seriously Ill Patients and Their Families, Washington State Medical Quality Assurance Commission, Seattle, WA, October 1, 2015
- Instructor, Hospitalists’ Goals of Care Communication Course, Pittsburgh, PA, October 5, 2015
• Instructor, Critical Care Communication (C3) Skills, Three-Day Communication Skills Course for UPMC Critical Care Fellows, Pittsburgh, PA, October 7-9, 2015
• Guest Lecturer, Palliative Care in the 21st Century: Is Everyone a Palliative Care Patient?, Palliative Care: Exploring the Frontiers–Revisiting the Challenges Conference, Columbia University Medical Center, October 23, 2015
• Instructor, Hospitalists’ Communication Course, Pittsburgh, PA, October 27, 2015
• Facilitator, PaliTalk Teach, Two-Day Communications Skills Teaching Methods for Mt. Sinai School of Medicine, New York, NY, November 2-3, 2015
• Facilitator, OncoTalk, Three-day Communication Skills Course for UPMC Oncology Fellows, Pittsburgh, PA, November 4-6, 2015
• Guest Lecturer, Ohio State University Wexner Medical Center, Department of Internal Medicine Grand Rounds and the Clinician Educator Lecture Series, Columbus, OH, November 19, 2015
• Guest Lecturer, Resolution Care, Palliative Care ECHO Session Video Presentation, Giving Bad News, January 12, 2016
• Guest Lecturer, Northwestern University's Medical Grand Rounds, February 23, 2016
• Guest Lecturer, Villanova College of Nursing, Challenges and Issues in Provider-Patient-Family Communication with Advance Care Planning for Oncology Patients, Philadelphia, PA, April 1-2, 2016

Amber Barnato MD MPH MS
• Director, Clinical Scientist Training Program, Institute for Clinical Research Education, University of Pittsburgh, 2003-present
• Director, Training Early Academic Mentors, Institute for Clinical Research Education, University of Pittsburgh, 2013-present
• Course Director, CLRES 2075 Seminar for Understanding Principles and Practices of Research Techniques (SUPPORT), Institute for Clinical Research Education, University of Pittsburgh, 2006-present

Sonya Borrero MD MS
• Co-Director, VA Advanced Fellowship Program in Women’s Health, VA Pittsburgh Healthcare System, 2014-present
• Director, Career Education and Enhancement for Health Care Research Diversity Program for Medical Students (CEED II), 2012-present

Lauren Broyles PhD RN
• Instructor, CLRES 2071 & CLRES 2072, Research Design and Development, Institute for Clinical Research Education, Clinical and Translational Science Institute (CTSI), University of Pittsburgh, 2011-present

Thuy Bui MD
• Elective Director, Community and Underserved Populations, University of Pittsburgh School of Medicine, 1999-present
• Course Director, MiniElective-Master Diagnostician; Underserved Care, University of Pittsburgh School of Medicine, 2000-present
• Co-Director, Area of Concentration: Global Health and Underserved Populations, University of Pittsburgh School of Medicine, 2003-present
• Track Director, Global Health Track, UPMC Internal Medicine Residency Training Program, 2006-present
• Course Director, Global Health Preparatory Seminar, UPMC Internal Medicine Residency, Global Health track, 2007-present
• Academy of Master Educators, University of Pittsburgh School of Medicine, 2009-present
• Course Director, Mini-Elective – Refugee Health, University of Pittsburgh School of Medicine, 2015-present
• Course Director, Special Topics in Global Health, University of Pittsburgh Graduate School of Public Health

http://www.dom.pitt.edu/dgim
Peter Bulova MD
- Member, Academy of Master Educators, University of Pittsburgh School of Medicine, 2009-present
- Track Director, International Scholars Track, UPMC Residency Training Program, 2011-present
- Director, Advanced Psychiatry for the Internist Medicine Elective, UPMC Internal Medicine Residency Training Program, 2011-present

Gregory Bump MD
- Member, Academy of Master Educators, University of Pittsburgh School of Medicine, 2012-present
- Course Director, Population Health, University of Pittsburgh School of Medicine, 2013-present
- Director, Internal Medicine Residency Morbidity and Mortality Conference, University of Pittsburgh School of Medicine, 2013-present

Raquel Buranosky MD MPH
- Clinic Director, Clinical Experiences, Women’s Center Clinic, 2000-present
- Member, Academy of Master Educators, University of Pittsburgh School of Medicine, 2006-present
- Director, Educational Innovation Project, UPMC Internal Medicine Residency Training Program, 2010-present
- Associate Program Director, UPMC Internal Medicine Residency Training Program, 2010-present
- Course Director, MiniElective–Intimate Partner Violence Across the Lifespan, 2013-present
- Chair, Program Evaluation Committee, Internal Medicine Residency Program, 2014-present

Robert Brooks MD PhD
- Associate Program Director, UPMC Internal Medicine Residency Training Program, VA Medical Center, 2002-present
- Interim Section Chief, Director of Internal Medicine Residency Continuity Clinics, UPMC Internal Medicine Residency Training Program, VA Medical Center, 2012-present

Chung-Chou Chang PhD
- Course Director, Biostatistics, Institute for Clinical Research Education, University of Pittsburgh, 1999-present
- Course Director, Survival Analysis, Institute for Clinical Research Education, University of Pittsburgh, 2001-present
- Course Director, Analysis of Cohort Studies, Department of Biostatistics, University of Pittsburgh, 2011-present

Rene Claxton MD
- Director, Palliative Care Undergraduate and Graduate Medical Education, University of Pittsburgh, 2011-present
- Course Director, Principles and Practice of Palliative Care, Institute for Clinical Research Education, University of Pittsburgh, 2012-present
- Director, Palliative Care Fellowship, Division of General Internal Medicine, University of Pittsburgh, 2012-present
- Preceptor, Outpatient Palliative Care Clinic, Division of General Internal Medicine, University of Pittsburgh, 2012-present
- Co-Course Director, Teaching Communication Skills, Institute for Clinical Research Education, University of Pittsburgh, 2013-present

Molly Conroy MD
- Assistant Dean, Medical Student Research, University of Pittsburgh School of Medicine, 2012-present
• Lecturer, Behavioral Medicine, Topic: Weight Management, University of Pittsburgh, 2012-present
• Faculty Preceptor, Clinical Experiences I, University of Pittsburgh, 2007-present
• Lecturer, Medical Writing and Presentation Skills (MEDEDU 2140) (course organizers: Michael Fine and Michael Elnicki), Institute for Clinical Research Education, University of Pittsburgh, 2011-present
• Course Co-Director and Lecturer, Medical Writing and Presentation Skills, Institute for Clinical Research Education, University of Pittsburgh, 2013-present
• Faculty Facilitator, Behavioral Medicine, 2012-present
• Core Faculty and Clinical Trials Module Leader, Clinical Research Methodology, Institute for Clinical Research Education, University of Pittsburgh, 2012-present
• Course Director, Seminar for Understanding Principles & Practices of Research Technology (SUPPORT), University of Pittsburgh, 2015-present
• Director, Clinical Scientist Training Program, University of Pittsburgh School of Medicine, 2015-present

Jennifer Corbelli MD MS
• Course Co-Director, Introduction to Systematic Review and Meta-Analysis, Institute for Clinical Research Education, University of Pittsburgh, 2014-present

Esa Davis MD
• Small Group Facilitator, Methods and Logic in Medicine I, University of Pittsburgh School of Medicine, 2014-present
• Small Group Facilitator, Population Health, University of Pittsburgh School of Medicine, 2014-present
• Lecture and Faculty, Career Education and Enhancement for Health Care Research Diversity (CEED), 2014-present
• Member, Executive Leadership Committee for ENACT R25, 2014-present
• Instructor, Professional Mentoring Skills Enhancing Diversity (PROMISED) Program, 2015-present

Hollis Day MD
• Chair, Performance-Based Assessment Task Force, University of Pittsburgh School of Medicine, 2006-present
• Medical Student Advisory Dean, University of Pittsburgh School of Medicine, 2007-present
• Course Director, Assessment Week for fourth-year medical students, 2007-present
• Academy of Master Educators, University of Pittsburgh School of Medicine, 2009-present
• Program Director, Standardized Patient Program, University of Pittsburgh School of Medicine, 2012-present

Anna K. Donovan MD
• Curriculum Director, Residents-as-Teachers, 2014-present
• Curriculum Director, Intern Ambulatory Course, 2014-present
• Preceptor, Montefiore Hospital Resident Clinic, 2014-present

D. Michael Elnicki MD
• Course Director, Combined Ambulatory Medicine-Pediatrics Clerkship, University of Pittsburgh School of Medicine, 2001-present
• Academy of Master Educators, University of Pittsburgh School of Medicine, 2006-present

Michael Fine MD MSc
• Course Co-Director, MEDEDU 2140: Medical Writing and Presentation Skills, Institute for Clinical Research Education, 2004-2015
- Instructor, Leadership Emerging and Diverse Scientists to Success (LEADS), Module on Writing and Communication Skills, Institute for Clinical Research Education, 2016
- Instructor, Leadership Emerging and Diverse Scientists to Success (LEADS), Module on Effective Peer Reviewing, Institute for Clinical Research Education, 2016

Gary S. Fischer MD
- Facilitator, Fourth-Year Medical Students, Practicing Medicine—What Awaits You?, 2015-2016
- Facilitator, EpicCare Training for Internal Medicine Faculty, Pittsburgh, PA, 2015-2016
- Mentor, Quality Improvement Methods, Multiple Residents and Fellows, 2015-2016
- Facilitator, Hard Talk: Advance Care Planning and End-of-Life Decisions, University of Pittsburgh Consortium Ethics Program, Allison Park, PA, November 9, 2015
- Member, Steering Committee, Developing Clinical Informatics Fellowship, 2015-2016

Alda Maria Gonzaga MD MS
- Program Director, Medicine-Pediatrics Residency Training Program, UPMC Internal Medicine Residency Training Program, 2008-present
- Academy of Master Educators, University of Pittsburgh School of Medicine, 2012-present
- Exemplary Clinical Workshop Award, Society of General Internal Medicine, 2013-present

Chester Good MD MPH
- Faculty Preceptor, Global Health Honduras clinical experience, 2002-present
- Small Group Facilitator, Clinical Pharmacology, University of Pittsburgh School of Medicine, 2012-present

Adam Gordon MD
- Course Director, Substance Abuse, University of Pittsburgh School of Medicine, 2007-present
- Advisory Dean, School of Medicine, University of Pittsburgh School of Medicine, 2007-present
- Co-Director, VA Pittsburgh Healthcare System’s Interdisciplinary Addiction Program for Education and Research (VIPER), VA’s Interprofessional Advanced Fellowships in Addiction Treatment, VA Pittsburgh Healthcare System, Pittsburgh, Pennsylvania, 2012-present
- Co-Director, Advancing VA Interdisciplinary Addiction Training in Education, Research, and Scholarship (AVIATORS), National Coordinating Center for the VA’s Interprofessional Advanced Fellowships in Addiction Treatment, Pittsburgh, PA, 2014-present

Rosanne Granieri MD
- Program Director, Master of Science Degree in Medical Education, Institute for Clinical Research Education, University of Pittsburgh, 2001-present
- Course Director, Seminar in Medical Education, Institute for Clinical Research Education, University of Pittsburgh, 2002-present
- Course Director, Enhancing Skills for Medical Educators, Institute for Clinical Research Education, University of Pittsburgh, 2002-present
- Course Director, Outpatient Teaching Practicum, Institute for Clinical Research Education, University of Pittsburgh, 2002-present
- Course Director, Inpatient Teaching Practicum, Institute for Clinical Research Education, University of Pittsburgh, 2002-present
- Academy of Master Educators, University of Pittsburgh School of Medicine, 2006-present
- Committee Chair, Curriculum Committee, University of Pittsburgh School of Medicine, 2007-present
- Course Director, Transitions to Internship, University of Pittsburgh School of Medicine, 2010-present
- Course Director, Topics in Medical Education, Institute for Clinical Research Education, University of Pittsburgh, 2010-present
• Course Director, Classroom Teaching Practicum, Institute for Clinical Research Education, University of Pittsburgh, 2010-present

**Thomas Grau MD**

• Associate Program Director, UPMC Internal Medicine Residency Training Program, 2012-present
• Teaching Attending of the Year Award, UPMC Shadyside, 2015
• William Cooper Excellence in Teaching Award, UPMC Shadyside, 2016
• Governor, Western Pennsylvania Region, American College of Physicians, 2016-present
• Member, American College of Physicians Awards Committee, 2016-present
• Course Director, Enhancing Teaching Skills for Clinician-Educators, Institute for Clinical Research Education, University of Pittsburgh, 2016-present

**Janel Hanmer MD PhD**

• Faculty Facilitator, Methods and Logic in Medicine, 2014-present
• Lecturer, Survey Design and Analysis (MEDEDU 2045), Institute for Clinical Research Education, 2015-present
• Small Group Facilitator, Population Health, University of Pittsburgh School of Medicine, 2015-present
• Guest Lecturer, Epidemiology of Aging-Methods, School of Public Health, University of Pittsburgh, 2015
• Invited Lecturer, Health Services Research Seminar Series, Estimation of a Preference-Based Score for the Patient-Reported Outcomes Measurement Information System (PROMIS), Center for Research on Health Care, University of Pittsburgh, 2016
• Invited Lecturer, International Melanoma Working, The PROMIS of PRO for Melanoma, Zagreb, Croatia, 2016
• Invited Lecturer, THETA Rounds, Construction of a Preference-Based Score for the Patient-Reported Outcomes Measurement System (PROMIS), University of Toronto, 2016

**Peggy Hasley MD MHSc**

• Instructor, Advanced Physical Exam, University of Pittsburgh School of Medicine, 1991-present
• Faculty Preceptor, Resident Clinic, 1991-present
• Track Director, Ambulatory Generalist Track, Internal Medicine Residency Program, UPMC, 2008-present
• Associate Program Director, Internal Medicine Ambulatory Training, Internal Medicine Residency Program, UPMC, 2009-present
• Chair, Ambulatory Training Committee, University of Pittsburgh, 2009-present
• Developer and Director, Practice Partnership Ambulatory Training for Generalists, University of Pittsburgh, 2009-present
• Course Developer and Director, Musculoskeletal Medicine, University of Pittsburgh School of Medicine, 2009-present
• Co-Developer and Director, Andrew Fisher Health Policy Journal Club, University of Pittsburgh School of Medicine, 2009-present
• Director, Patient-Centered Medical Home Curriculum, UPMC, 2010-present
• Student Teaching Attending, University of Pittsburgh School of Medicine, 2010-present
• Course Developer and Co-Director, Health Policy and Advocacy for the Busy Clinician, University of Pittsburgh School of Medicine, 2012-present
• Curriculum Co-Developer and Co-Director, High Value Cost Conscious Care, University of Pittsburgh School of Medicine, 2012-present
• Member, Academy of Master Educators, University of Pittsburgh School of Medicine, 2012-present
• Faculty Preceptor, Medical Student Experiences, University of Pittsburgh School of Medicine, 2014-present
• Developer and Director, Enhanced Handoffs Curriculum, University of Pittsburgh School of Medicine, 2014-present
• Fellow, American College of Physicians, 2015-present
• Co-Developer, Ambulatory Curriculum on the No-Show Patient, University of Pittsburgh School of Medicine, November 2015
• Steering Committee Member, Medicine in the Real World, Health Reform in Action, 2015-2016
• Senior Co-Developer, Primary Care for the LGBT Patient Curriculum, University of Pittsburgh School of Medicine, 2016
• Invited Lecturer, Internal Medicine Grand Rounds, University of Pittsburgh School of Medicine, 2016
• Poster Judge, Association of Program Directors in Internal Medicine Spring Meeting, 2016

Leslie Hausmann PhD
• Course Co-Director, Introduction to Research on Healthcare Disparities, Institute for Clinical Research Education, University of Pittsburgh, (every other year) 2012-present
• Course Co-Director, Medical Writing and Presentation Skills, Institute for Clinical Research Education, University of Pittsburgh, (every other year) 2014-present
• Session Facilitator, Seminar for Understanding Principles and Practices of Research Technology (SUPPORT), University of Pittsburgh School of Medicine, 2014-present
• Faculty Facilitator, Diversity Awareness and Acceptance Seminar, University of Pittsburgh School of Medicine, 2014-present

Scott Herrle MD
• Course Director, Advanced Physical Exam, University of Pittsburgh School of Medicine, 2009-present
• Member, Academy of Master Educators, 2015-present

Erika Hoffman MD
• Course Director, Adult Inpatient Medicine, University of Pittsburgh School of Medicine, 2008-present
• Site Director, Inpatient Medical Clerkship, University of Pittsburgh School of Medicine, 2008-present

Wishwa Kapoor MD MPH
• Director, Annual Internal Medicine Review Course, University of Pittsburgh School of Medicine, 1995-present
• Preceptor, Hospitalist Service, UPMC Presbyterian and UPMC Montefiore, 2001-present
• Course Director, Comparative Effectiveness Research, Institute for Clinical Research Education, University of Pittsburgh, 2012-present
• Executive Committee Member and Instructor, Leading Emerging and Diverse Scientists to Success (LEADS) Program, Institute for Clinical Research Education, University of Pittsburgh, 2016-present
• Instructor, Professional Mentoring Skills Enhancing Diversity (PROMISED) Program, Institute for Clinical Research Education, University of Pittsburgh, 2016-present

Dio Kavalieratos PhD
• Course Co-Director, Mentoring Matters, Institute for Clinical Research Education, University of Pittsburgh, 2015-present
• Invited Speaker, Palliative Care Research: Challenges and Opportunities, Seminar in Chronic Illness, University of Pittsburgh School of Nursing, December 2015

Kevin Kraemer MD MSc
• Director, General Internal Medicine Fellowship Program, University of Pittsburgh, 2003-present
• Course Director, Research Design and Development, Institute for Clinical Research Education, University of Pittsburgh, 2004-present
Frank Kroboth MD
- Member, Academy of Master Educators, University of Pittsburgh School of Medicine, 2006-present
- Assistant Dean, Graduate Medical Education, University of Pittsburgh School of Medicine, 2013-present
- Senior Director, Fellowships and Special Projects, UPMC Medical Education, 2013-present

Douglas Landsittel PhD
- Track Director, Comparative Effectiveness Research, MS Clinical Research Program, Institute for Clinical Research, University of Pittsburgh, 2015-2016
- Co-Director, Comparative Effectiveness Research course (CLRES 2107), Institute for Clinical Research Education, University of Pittsburgh, 2015-2016
- Course Director, Design and Analysis of Biomarker Studies course (CLRES 2025), Institute for Clinical Research Education, University of Pittsburgh, 2015-2016
- Course Director, Computer Methods in Clinical Research course (CLRES 2005), Institute for Clinical Research Education, University of Pittsburgh, 2015-2016
- Course Director, Fundamentals of PCOR (online course), Expanding National Capacity in PCOR through Training (ENACT) Program, University of Pittsburgh, 2015-2016
- Course Director, Advanced Methods and Grant Writing in PCOR (online course), Expanding National Capacity in PCOR through Training (ENACT) Program, University of Pittsburgh, 2015-2016

Anna Marie Lewarchik MD
- Member, Combined Ambulatory Medicine and Pediatrics Clerkship (CAMPC) curriculum committee, 2009-2010, 2014-present
- Preceptor, UPMC Internal Medicine Residency, Shea Medical Center, Resident Continuity Clinic, 2014-present
- Faculty Preceptor, CAMPC, Shea Medical Center, University of Pittsburgh School of Medicine, 2014-present
- Faculty Preceptor, Clinical Experiences Course, University of Pittsburgh School of Medicine, 2014-present
- Faculty Facilitator, Advanced Medical Interviewing, University of Pittsburgh School of Medicine, 2014-present
- Faculty Facilitator, Introduction to Medical Interviewing, University of Pittsburgh School of Medicine, 2014-present
- Student Teaching Attending, Adult Inpatient Medicine Clerkship, University of Pittsburgh School of Medicine, 2014-present

Melissa McNeil MD MPH
- Director, VA Women's Health Fellowship Program, VA Office of Academic Affiliation and Division of General Internal Medicine, University of Pittsburgh, 1994-present
- Director, Women's Health Fellowship Program, Division of General Internal Medicine, University of Pittsburgh, 1994-present
- Course Director, Area of Concentration: Women's Health, University of Pittsburgh School of Medicine, 1999-present
- Course Director, Introduction to Physical Examination, University of Pittsburgh School of Medicine, 2004-present
- Director, Women's Health Residency Training, UPMC Internal Medicine Residency Training Program, 2004-present
- Block Director, Introduction to Patient Care, University of Pittsburgh School of Medicine, 2004-present
- Course Director, Curriculum Development, MS in Medical Education Program, Institute for Clinical Research Education, University of Pittsburgh, 2015-2016
• Course Director, Managing the Problem Learner, MS in Medical Education Program, Institute for Clinical Research Education, University of Pittsburgh, 2015-2016
• Course Director, Learning about Learning: Principles of Adult Learning, MS in Medical Education Program, Institute for Clinical Research Education, University of Pittsburgh, 2015-2016
• Course Director, Making the Most of Mentoring, MS in Medical Education Program, Institute for Clinical Research Education, University of Pittsburgh, 2015-2016
• Founding Member, Academy of Master Educators, University of Pittsburgh School of Medicine, 2006-present
• Co-Chair, Mentoring Task Force, Academy of Master Educators, University of Pittsburgh School of Medicine, 2009-present
• Visiting Professor and Medical Grand Rounds, Update on Menopause, Cleveland Clinic Foundation, September 2015
• Vice Chair of Education, Department of Medicine, 2016-present

Kathleen McTigue MD MPH MS
• Track Director, Clinical Scientist Track, Internal Medicine Residency Training Program, UPMC, 2010-present
• Course Director and Instructor, Clinical Research Methods, Institute for Clinical Research Education, 2010-present
• Guest Lecturer, Epidemiologic Basics of Disease Control, Obesity and Diabetes Prevention, University of Pittsburgh Graduate School of Public Health, 2011-present
• Associate Director for Research, International Scholars Track, UPMC Internal Medicine Residency Training Program, 2011-present

Alexandra Mieczkowski MD
• Course Director, Topics in Medical Education and Medical Education Research (MEDEDU 2160), 2015-present
• Coordinator, Internal Medicine–Pediatrics Residency Program, 2015-present
• Coordinator, Medical Education Journal Club, 2015-present
• Invited Lecturer, Financial Wellness: I Still Feel Poor with a Paycheck, Pediatric Residency Program Noon Conference
• Invited Lecturer (with Alda Maria Gonzaga MD), Drowning in Debt: Financial Swimming Lessons for Medical Residents, Spring APDIM National Meeting Seminar, Las Vegas, NV, May 2016

Natalia Morone MD MS
• Co-Director, Career Education and Enhancement for Health Care Research Diversity (CEED), Institute for Clinical Research Education, University of Pittsburgh, 2012-present
• Associate Director, Clinical Scientist Track, Internal Medicine Residency Program, UPMC, 2015-present
• Associate Director for Research, International Scholars Track, Internal Medicine Residency Program, UPMC, 2015-present

Larissa Myaskovsky PhD
• Course Instructor, Medical Writing and Presentation Skills, University of Pittsburgh, School of Medicine, 2015-2016
• Course Designer / Instructor, Introduction to Disparities Research in Health Care, University of Pittsburgh, School of Medicine, 2015-2016

Thomas Painter MD
• Director, Adult Inpatient Medicine; Internal Medicine Clerkship, University of Pittsburgh School of Medicine, 1982-present

Kathleen McTigue MD MPH MS
• Track Director, Clinical Scientist Track, Internal Medicine Residency Training Program, UPMC, 2010-present
• Course Director and Instructor, Clinical Research Methods, Institute for Clinical Research Education, 2010-present
• Guest Lecturer, Epidemiologic Basics of Disease Control, Obesity and Diabetes Prevention, University of Pittsburgh Graduate School of Public Health, 2011-present
• Associate Director for Research, International Scholars Track, UPMC Internal Medicine Residency Training Program, 2011-present

Alexandra Mieczkowski MD
• Course Director, Topics in Medical Education and Medical Education Research (MEDEDU 2160), 2015-present
• Coordinator, Internal Medicine–Pediatrics Residency Program, 2015-present
• Coordinator, Medical Education Journal Club, 2015-present
• Invited Lecturer, Financial Wellness: I Still Feel Poor with a Paycheck, Pediatric Residency Program Noon Conference
• Invited Lecturer (with Alda Maria Gonzaga MD), Drowning in Debt: Financial Swimming Lessons for Medical Residents, Spring APDIM National Meeting Seminar, Las Vegas, NV, May 2016

Natalia Morone MD MS
• Co-Director, Career Education and Enhancement for Health Care Research Diversity (CEED), Institute for Clinical Research Education, University of Pittsburgh, 2012-present
• Associate Director, Clinical Scientist Track, Internal Medicine Residency Program, UPMC, 2015-present
• Associate Director for Research, International Scholars Track, Internal Medicine Residency Program, UPMC, 2015-present

Larissa Myaskovsky PhD
• Course Instructor, Medical Writing and Presentation Skills, University of Pittsburgh, School of Medicine, 2015-2016
• Course Designer / Instructor, Introduction to Disparities Research in Health Care, University of Pittsburgh, School of Medicine, 2015-2016

Thomas Painter MD
• Director, Adult Inpatient Medicine; Internal Medicine Clerkship, University of Pittsburgh School of Medicine, 1982-present

Department of Medicine  http://www.dom.pitt.edu/dqim
• Director, Senior Medical Students Internal Medicine Sub-Internship, University of Pittsburgh School of Medicine, 1982-present
• Member, Academy of Master Educators, University of Pittsburgh School of Medicine, 2006-present

Seo Young Park PhD
• Guest Lecturer, Fundamentals of Bench Research, Institute for Clinical Research Education, University of Pittsburgh, 2015-2016
• Instructor, Fundamentals of Clinical Trials, Institute for Clinical Research Education, University of Pittsburgh, 2016
• Instructor, Statistical Issues of Clinical Trials, Institute for Clinical Research Education, University of Pittsburgh, 2016
• Instructor, CLRES 2025 Design and Analysis of Biomarker Studies, Institute for Clinical Research Education, University of Pittsburgh, 2016

Brian Primack MD PhD
• Guest Lecturer, Update on Teen Tobacco and Nicotine Use, University of Pittsburgh Cardiovascular Outcomes Research Retreat, Pittsburgh, 2016
• Lecturer and Assistant Course Developer, Professional Mentoring Skills Enhancing Diversity (PROMISED), Institute for Clinical Research Education, University of Pittsburgh, 2016-present
• Lecturer, Developing Leadership Skills for a Career in Clinical and Translational Science, Institute for Clinical Research Education, University of Pittsburgh, 2015-2016
• Lecturer, Pulmonology and Endocrinology, Physician Assistant Board Review, Chatham University, 2015-2016
• Lecturer, Theories of Health Behavior, University of Pittsburgh Graduate School of Public Health, 2015-2016
• Lecturer, Clinical Experiences 1 and 2, University of Pittsburgh School of Medicine, 2015-2016

Thomas Radomski MD
• Instructor, Advanced Physical Examination Course, University of Pittsburgh School of Medicine, 2012-present
• Facilitator, UPMC Internal Medicine Residency Evidence-Based Medicine Curriculum, 2013-present
• Student Teaching Attending, Adult Inpatient Medicine Clerkship, University of Pittsburgh School of Medicine, 2014-present
• Preceptor, UPMC Internal Medicine Residency, VA Pittsburgh Outpatient Continuity Clinic, 2014-present
• Preceptor, Clinical Experiences Course, University of Pittsburgh School of Medicine, 2014-present
• Invited Lecturer, Health Policy Elective, UPMC Internal Medicine Residency Program, 2014-present

Eva Barbara Reitschuler-Cross MD
• Coordinator, Subspecialty Education: Palliative Care, University of Pittsburgh School of Medicine, 2012-present

Bruce Rollman MD MPH
• Lecturer, Epidemiology of Cardiovascular Disease, University of Pittsburgh Graduate School of Public Health, 2004-present
• Course Director, Introduction to Grant Writing, Institute for Clinical Research Education, University of Pittsburgh, 2013-present

Doris Rubio PhD
• Co-Director, Institute for Clinical Research Education, University of Pittsburgh, 2005-present
- Course Director, Computer Methods, Institute for Clinical Research Education, University of Pittsburgh, 2010-present
- Course Director, Best Practices in Clinical Research, Institute for Clinical Research Education, University of Pittsburgh, 2012-present
- Director, Academic Programs, Institute for Clinical Research Education, University of Pittsburgh, 2015-present
- Director and Instructor, Professional Mentoring Skills Enhancing Diversity (PROMISED) Program, Institute for Clinical Research Education, University of Pittsburgh, 2015-present
- Director and Instructor, Leading Emerging and Diverse Scientists to Success (LEADS) Program, Institute for Clinical Research Education, University of Pittsburgh, 2015-present

Yael Schenker MD MS
- Course Director, Research Methods in Palliative Care, University of Pittsburgh School of Medicine, 2015-2016
- Lecturer, Introduction to Research on Disparities in Health Care, University of Pittsburgh School of Medicine, 2015-2016
- Director, Palliative Care Journal Club, University of Pittsburgh School of Medicine, 2015-2016
- Lecturer, University of Pittsburgh Cancer Survivorship Speaker Series, Palliative Care in Oncology: Past Present and Future, 2015-2016

Kenneth Smith MD
- Course Director, Advanced Methods in Decision and Cost-Effectiveness Analysis, Institute for Clinical Research Education, 2005-present
- Director, Evidenced-Based Medicine Curriculum, UPMC Internal Medicine Residency Training Program, 2012-present
- Course Director, Directed Study in Decision and Cost-Effectiveness Analysis, Institute for Clinical Research Education, 2012-present
- Section Coordinator, Clinical Epidemiology, in the Clinical Research Methods course, Institute for Clinical Research Education, 2014-present

Carla Spagnoletti MD MS
- Inpatient Ward Attending, UPMC Montefiore Hospital, 2006-present
- Preceptor, Women’s Health Rotation, Division of General Internal Medicine, UPMC Montefiore Hospital, 2006-present
- Preceptor, Resident Clinic, UPMC Montefiore Hospital, 2006-present
- Course Co-Director, Advanced Medical Interviewing, University of Pittsburgh School of Medicine, 2010-present
- Course Co-Director, Teaching to Teach Communication Skills, Clinician-Educator Training Program, University of Pittsburgh School of Medicine, 2010-present
- Preceptor, Morning Report, UPMC Montefiore Hospital, 2011-present
- Facilitator, Obstetrics-Gynecology Resident Medical Error Disclosure, 2011-present
- Facilitator, Obstetrics-Gynecology Intern Communication Skills, 2012-present
- Academy of Master Educators, University of Pittsburgh School of Medicine, 2012-present
- Facilitator, Residents as Teachers Retreat, University of Pittsburgh School of Medicine, 2013-present
- Facilitator, Interns as Teachers Retreat, University of Pittsburgh School of Medicine, 2013-present
- Facilitator, Mentoring Matters Workshop, University of Pittsburgh School of Medicine, 2013-present
- Guest Speaker, Making the Most of Mentoring, Clinician-Educator Training Program, University of Pittsburgh School of Medicine, 2013-present
- Facilitator, Resident Leadership Retreat, University of Pittsburgh School of Medicine, 2014-present
• Facilitator, Resident Pre-Clinic Conference, University of Pittsburgh School of Medicine, 2014-present
• Facilitator, Teaching Shared Decision Making to Internal Medicine Residents Workshop, Annual Meeting of the Association of Program Directors in Internal Medicine, Atlanta, GA, October 2015
• Facilitator, Patient Theater Noon Conference, Internal Medicine Residency Program, UPMC, and VA Hospital of Pittsburgh, 2015-2016
• Facilitator, Making Large-Group Lectures Interactive, Academy of Master Educators, University of Pittsburgh School of Medicine, 2015-2016
• Facilitator, Building a Professional Reputation, Academy of Master Educators, University of Pittsburgh School of Medicine, 2016
• Facilitator, Developing a Professional Reputation for the Clinician-Educator Workshop, Fellows’ Symposium, 39th Annual Meeting of the Society of General Internal Medicine, 2016

Brielle Spataro MD MS
• Lecturer, Women’s Health Elective, University of Pittsburgh School of Medicine, 2014-present
• Attending Physician, General Internal Medicine Wards, 2014-present
• Co-Director, Intern Ambulatory Medical Interviewing and Communication Skills, 2015-present

Jamie Stern MD
• Instructor, Faculty Introduction to Medical Interviewing, University of Pittsburgh School of Medicine, 2011-present
• Director, Faculty Journal Club, Department of Medicine, University of Pittsburgh, 2015-2016
• Director, Women’s Health Lectures Series, Department of Medicine, University of Pittsburgh, 2015-2016

Galen Switzer PhD
• Course Director, Measurement in Clinical Research, Institute for Clinical Research Education, 2000-present
• Invited Lecturer, Measurement in Clinical Research, Medical Educational Research Methods and Innovative Designs (MERMAID) Series, Institute for Clinical Research Education, University of Pittsburgh, January 2016

Joanne Suffoletto MD
• Associate Chief of Staff, Education and Innovative Learning, VA Pittsburgh Healthcare System, 2012-present

Gary Tabas MD
• Director, Ambulatory Education, UPMC Shadyside Residency Program, 1999-present
• Academy of Master Educators, University of Pittsburgh School of Medicine, 2009-present

Holly Thomas MD
• Lecturer, Women’s Health Elective, University of Pittsburgh School of Medicine, 2012-present
• Attending Physician, General Internal Medicine Wards, 2014-present

Sarah A. Tiilstra MD MS
• Curriculum Director, Women’s Health, University of Pittsburgh School of Medicine, 2012-present
• Director, Women’s Health Track, Internal Medicine Residency Program, UPMC, 2015-present
• Course Director, Women’s Health Elective, University of Pittsburgh School of Medicine, 2015-present
• Moderator, Clinical Reasoning Chief-of-Medicine Conference, Division of General Internal Medicine, University of Pittsburgh, 2016-present
Dana Tudorascu PhD
- Course Director, Linear Regression Analysis, Institute for Clinical Research Education, 2015-present

Asher Tulsky MD
- Member, Academy of Master Educators, University of Pittsburgh School of Medicine, 2009-present
- Course Director, Clinical Experience, University of Pittsburgh School of Medicine, 2012-present
- Associate Program Director, Residency Training Program, UPMC Internal Medicine Residency Training Program, 2009-present

Jonathan Yabes PhD
- Co-Instructor, Biostatistics (CLRES2020), Institute for Clinical Research Education, 2013-present
- Co-Instructor, Survival Analysis (CLRES2023), Institute for Clinical Research Education, 2014-present
- Course Director, SAS for Data Management and Analysis (BIOST2093), Department of Biostatistics, 2014-present
- Course Director, Analysis of Correlated Data (CLRES2026), Institute for Clinical Research Education, 2015-present
- Course Director, Logistic Regression (CLRES2022), Institute for Clinical Research Education, 2015-present

Lan Yu PhD
- Course Director, Survey Design and Data Analysis, Institute for Clinical Research Education, University of Pittsburgh, 2015-2016

Reed VanDeusen MD
- Course Director, Introduction to Interviewing, University of Pittsburgh School of Medicine, 2009-present
- Associate Program Director, Medicine-Pediatric Residency Training Program, UPMC Internal Medicine Residency Training Program, 2008-present
- Member, Academy of Master Educators, 2014-present

Shanta Zimmer MD
- Program Director, Residency Training Program, UPMC Internal Medicine Residency Training Program, 2010-present
- Course Director, Introduction to Being a Physician, University of Pittsburgh School of Medicine, 2010-present
- Student Teaching Attending, Adult Inpatient Medicine Clerkship, University of Pittsburgh School of Medicine, 2011-present
- Member, Academy of Master Educators, University of Pittsburgh School of Medicine, 2015-present
# Fellowship Program

<table>
<thead>
<tr>
<th>Current Fellow</th>
<th>Medical School</th>
<th>Residency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farkas Amy</td>
<td>University of Pittsburgh</td>
<td>UPMC</td>
</tr>
<tr>
<td>Lebduska Elena</td>
<td>Robert Wood Johnson Medical School</td>
<td>Montefiore Medical Center (NYC)</td>
</tr>
<tr>
<td>Merriam Sarah</td>
<td>University of Pittsburgh</td>
<td>UPMC</td>
</tr>
<tr>
<td>Nandiwada Deepa Rani</td>
<td>George Washington School of Medicine and Health Sciences</td>
<td>NYU Langone Medical Center</td>
</tr>
<tr>
<td>Parekh Natasha</td>
<td>University of Miami Miller School of Medicine</td>
<td>UPMC</td>
</tr>
<tr>
<td>Radomski Thomas</td>
<td>Penn State University</td>
<td>UPMC</td>
</tr>
<tr>
<td>Rusiecki Jennifer</td>
<td>Medical College of Georgia</td>
<td>UPMC</td>
</tr>
<tr>
<td>Shroff Swati</td>
<td>University of Pittsburgh School of Medicine</td>
<td>Boston Medical Center</td>
</tr>
<tr>
<td>Spataro Brielle</td>
<td>Drexel University College of Medicine</td>
<td>UPMC</td>
</tr>
<tr>
<td>Szymusiak John</td>
<td>University of Cincinnati College of Medicine</td>
<td>UPMC</td>
</tr>
<tr>
<td>Ufomata Eloho</td>
<td>University of Kentucky College of Medicine</td>
<td>UPMC</td>
</tr>
</tbody>
</table>

## Hospice and Palliative Medicine Fellows

<table>
<thead>
<tr>
<th>Current Fellow</th>
<th>Medical School</th>
<th>Residency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stein Dillon</td>
<td>West Virginia School of Osteopathic Medicine</td>
<td>WPAHS</td>
</tr>
<tr>
<td>Brown Amanda</td>
<td>University of Tennessee College of Medicine</td>
<td>UPMC</td>
</tr>
<tr>
<td>Siropaides Caitlin</td>
<td>Philadelphia College of Osteopathic Medicine</td>
<td>UPMC</td>
</tr>
<tr>
<td>Glaser Christine</td>
<td>Loyola University Chicago Stritch School of Medicine</td>
<td>University of Nevada Reno</td>
</tr>
</tbody>
</table>

## Departing Fellow

<table>
<thead>
<tr>
<th>Departing Fellow</th>
<th>Current Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lebduska Elena</td>
<td>University of Colorado</td>
</tr>
<tr>
<td>Radomski Thomas</td>
<td>Faculty, UPMC</td>
</tr>
<tr>
<td>Nandiwada Deepa</td>
<td>University of Pennsylvania</td>
</tr>
<tr>
<td>Rusiecki Jennifer</td>
<td>University of Chicago</td>
</tr>
<tr>
<td>Spataro Brielle</td>
<td>Faculty, UPMC</td>
</tr>
</tbody>
</table>

## Hospice and Palliative Medicine Fellows

<table>
<thead>
<tr>
<th>Departing Fellow</th>
<th>Current Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brown Amanda</td>
<td>Faculty, UPMC</td>
</tr>
<tr>
<td>Stein Dillon</td>
<td>Butler Memorial Hospital</td>
</tr>
<tr>
<td>Holt Caitlin</td>
<td>University of Texas Southwestern</td>
</tr>
<tr>
<td>Glaser Christine</td>
<td>Faculty</td>
</tr>
</tbody>
</table>
**Fellow Publications**


**Fellow Presentations**


Pessu O, **Nandiwada DR**. A Challenging Case of Ascities: Chemotherapy Induced Nodular Regional Hyperplasia. Poster at the 39th Annual Meeting of the Society of General Internal Medicine, Hollywood, FL, May 2016


Radomski TR, “Medicaid: America’s Safety Net Health Insurance Program,” University of Pittsburgh Medical Center Internal Medicine Residency Health Policy Elective, Pittsburgh, Pennsylvania, March 1, 2016


Spataro B, Lecturer, Women’s Health Elective, University of Pittsburgh School of Medicine, 2014-present

**Fellow Abstracts and Clinical Vignettes**


**Honors and Awards**

Spataro B, Member, Alliance for Academic Internal Medicine Collaborative on Healing and Renewal in Medicine Collaborative Research Work Group, 2016

CLINICAL CARE

A major portion of the DGIM’s ambulatory practice is located at UPMC Montefiore. The DGIM has continued to advance the redesign of primary care by strengthening the team approach to managing chronic diseases and providing preventive care by allowing primary care physicians to focus on patients with more complex cases. Panel management has assumed a central role using more innovative methods to support patients. Phone calls to patients and MyUPMC messaging have increased, while hospitalization, readmissions, and visits to the emergency department (ED) have decreased. The DGIM ended the year with Centers for Medicare and Medicaid Services (CMS) star rating of 4.7 for closure in gaps of care.

Shea Medical Center achieved national recognition effective December 2014 as a Patient-Care Medical Home under the current standards of the National Committee for Quality Assurance (NCQA) at level-3 recognition, the highest level. Palliative care outpatient services continue to expand and are now available at UPMC Mercy Hospital.

The DGIM completed its first year pilot of the Enhanced Care Program (ECP), a similar model to ambulatory intensive care being used nationally. Working with UPMC Health Plan, we developed the ECP as an interdisciplinary clinical program, based at our Montefiore practice site, to provide comprehensive and highly coordinated care to the most complex patients who have extensive use of services and high levels of unplanned care. By the end of the first year, a strong multidisciplinary team was developed, and 135 patients were enrolled into the program. The program is providing 24/7 access to the team, frequent home visits, community support, and extensive behavioral health support. Early data indicate a significant decrease in ED visits, but additional data over a longer period of time will be needed to determine the financial impact and medical outcomes.

Inpatient admissions to the hospitalist service have increased by 6% at UPMC Presbyterian. With patient reassignment to the medical teams at UPMC Shadyside, and admissions by our hospitalists to the Bone Marrow Transplant Unit and Pittsburgh Cancer Institute, Shadyside admissions have increased by 30%. The Preoperative Evaluation Center (PEC) was transitioned in November 2014 to the DGIM. The PEC is staffed with hospitalist physicians who also provide the perioperative inpatient medical care, which allows for a much improved continuum of care for our surgical patients. The PEC has an average of 400 patient visits per month; this represents close to 50% of the elective surgical volume. The PEC provides evidence-based care, which has decreased unnecessary testing and expenses for our patients. During FY16, the collaboration with the surgical services will increase and the DGIM will provide a trauma co-management service.

<table>
<thead>
<tr>
<th>GENERAL INTERNAL MEDICINE HISTORICAL OUTPATIENT VOLUMES^</th>
<th>Location:</th>
<th>FY 13</th>
<th>FY 14</th>
<th>FY 15</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Montefiore</td>
<td>36,024</td>
<td>36,816</td>
<td>38,323</td>
<td></td>
<td>4%</td>
</tr>
<tr>
<td>Shea Medical Center</td>
<td>7,731</td>
<td>8,331</td>
<td>7,485</td>
<td></td>
<td>(10%)</td>
</tr>
<tr>
<td>Turtle Creek Primary Care</td>
<td>1,416</td>
<td>1,512</td>
<td>1,594</td>
<td></td>
<td>5%</td>
</tr>
<tr>
<td>Hillman Pain Center</td>
<td>1,754</td>
<td>2,016</td>
<td>2,075</td>
<td></td>
<td>3%</td>
</tr>
<tr>
<td>Cardiovascular Palliative Care</td>
<td>116</td>
<td>168</td>
<td>137</td>
<td></td>
<td>(18%)</td>
</tr>
<tr>
<td>Magee Palliative Care</td>
<td>391</td>
<td>413</td>
<td>295</td>
<td></td>
<td>(29%)</td>
</tr>
<tr>
<td>Benedum Supportive Care Service</td>
<td>68</td>
<td>58</td>
<td>84</td>
<td></td>
<td>(14%)</td>
</tr>
<tr>
<td>Mercy Palliative Care*</td>
<td></td>
<td></td>
<td>303</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL VOLUME</td>
<td>47,500</td>
<td>49,314</td>
<td>50,286</td>
<td></td>
<td>2%</td>
</tr>
</tbody>
</table>

^ Actual outpatient visits; no observation encounters
* Opened July 1, 2015

The Program for Health Care to Underserved Populations (PHCUP) finished its 21st year of operation. PHCUP is currently maintaining community-based clinics that offer free services at three sites, partnering with the Women’s Center and Shelter of Greater Pittsburgh and the Salvation Army. Continued grant funding this year for medical support and full-time registered nurse support significantly decreased the number of patients turned away and allowed for PHCUP to continue to provide free medications for the patients. This year, the Pittsburgh School of Dental Medicine students rotated through Birmingham Clinic and provided dental care for patients. DGIM faculty and residents totaled...
General Internal Medicine FY 2015-2016

361 volunteer hours, and medical students totaled 807 hours. Continuing as a major training site for residents and medical students, residents logged 390 curriculum hours at the Birmingham Free Clinic, and medical students participated in 474 hours.

**Clinic Locations**
CLINICAL QUALITY IMPROVEMENT INITIATIVES

The DGIM continues to excel in its quality outcome performance despite rising numbers of new patients. Faculty patient panels meet or exceed the 90th percentile rate of national performance for QI measures for diabetes management, preventive health services, and cholesterol/statin management.

Using quality improvement (QI) methodology to implement process improvements, Shea Medical Center improved patient outcomes, most notably using care management strategies for their most vulnerable and high-risk patients with diabetes and hypertension. For a cohort of 209 patients, improved A1c control < 9 from 32% to 55% and A1c control < 8 from 28% to 42%; improved blood pressure control < 160/100 from 29% to 72% and blood pressure control < 140/90 from 18% to 42%.

The DGIM undertook an intensive and multi-faceted QI initiative to reduce both ED visit rates and hospital readmissions. The implementation of the post-discharge follow-up and care management program coordinated between our inpatient nurse liaisons and our clinic’s firm-based registered nurses was the most successful. The initiative also included timely post-hospital discharge appointments in office, as well as integration with the residency program through a training program called Bridging the Gap: A Post Hospital Discharge Visit Curriculum. Results led to a decrease in readmissions for Medicare patients from 12.64% to 11.18%, and for commercial and Medicaid patients from 10.02% to 7.22%, the lowest rates of all shared savings practices. Extensive efforts taken to reduce ED visit rates included a Call Us First campaign, the innovative ECP mentioned above, and increased capacity for urgent care visits. As per UPMC Health Plan data, the DGIM met its target for the first time, with ED visits below 26 per 1,000 Health Plan members for Level 1 and 2 visits. The ambulatory clinic at UPMC Montefiore improved patient experience with its call center. Interventions resulted in increased outreach calls and answered calls from around 15,000 to about 16,000 per month, while also reducing the average patient hold time by 31 seconds. In addition, efforts to improve patient satisfaction by clinic office staff and faculty primary care providers resulted in increased CG-CHAPS survey scores for Doctor-Patient Communication from 96.6 to 96.9, as well as Top Box office staff quality scores at Shea from 89 to 91.4 and at UPMC Montefiore from 91.4 to 92.6.

The UPMC Montefiore clinic site implemented a pre-visit planning and care management initiative to improve care for high-risk patients with diabetes with A1c > 9. A multidisciplinary team developed a model which comprised pre-visit planning/patient outreach, at-visit efficiency, and inter-visit care. Our physician appointments show rates improved to 75% for patients with poorly controlled diabetes. Patient outreach notifies more than 70% of patients. Also, glucometer downloads are now a routine practice enabling physicians to make decisions at the visit. A1c rates increased from 0% to 39% below 9, and from 40% to 60% below 10. In addition, foot exam rates are the highest in four quarters at 82%, and our quality ranking for diabetes care within UPMC improved to 20 out of 150 practices, which is among the top 15% of all practices.
FACULTY

Faculty in Core Divisions
Fiscal Year 2014-2016

<table>
<thead>
<tr>
<th>Division</th>
<th>FY 2003 (Base Year)</th>
<th>FY 2014</th>
<th>FY 2015</th>
<th>FY 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Medicine</td>
<td>79</td>
<td>138</td>
<td>135</td>
<td>137</td>
</tr>
</tbody>
</table>

Note: Includes University of Pittsburgh full-time faculty and volunteer faculty who have a UPP appointment and excludes research associates, adjunct faculty and emeritus faculty.

Current General Internal Medicine Faculty

Full-Time Faculty

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abebe</td>
<td></td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Anish</td>
<td></td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Arnold</td>
<td></td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Barnato</td>
<td></td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Benson</td>
<td></td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Borroso</td>
<td></td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Brooks</td>
<td></td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Boryles</td>
<td></td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Bui</td>
<td></td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Bulova</td>
<td></td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Bump</td>
<td></td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Buranosky</td>
<td></td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Castillo</td>
<td></td>
<td>Adjunct Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Chaitin</td>
<td></td>
<td>Adjunct Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Chang</td>
<td></td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Childers</td>
<td></td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Claxton</td>
<td></td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Conroy</td>
<td></td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Corbelli</td>
<td></td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Davis</td>
<td></td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Day</td>
<td></td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Donovan</td>
<td></td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Elnicki</td>
<td></td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Farkas</td>
<td></td>
<td>Visiting Instructor in Medicine</td>
</tr>
<tr>
<td>Fine</td>
<td></td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Fischer</td>
<td></td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Gellad</td>
<td></td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Gondwe-Chunda</td>
<td></td>
<td>Adjunct Instructor in Medicine</td>
</tr>
<tr>
<td>Gonzaga</td>
<td></td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Good</td>
<td></td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Gordon</td>
<td></td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Granieri</td>
<td></td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Grau</td>
<td></td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Hanmer</td>
<td></td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Name</td>
<td>Last Name</td>
<td>Title</td>
</tr>
<tr>
<td>--------------------------</td>
<td>-----------</td>
<td>---------------</td>
</tr>
<tr>
<td>Hariharan</td>
<td>Jaishree</td>
<td>MD</td>
</tr>
<tr>
<td>Hasley</td>
<td>Peggy</td>
<td>B. MD</td>
</tr>
<tr>
<td>Hausmann</td>
<td>Leslie</td>
<td>R. PhD</td>
</tr>
<tr>
<td>Heist</td>
<td>Brian</td>
<td>S. MD</td>
</tr>
<tr>
<td>Herbeck-Belnap</td>
<td>Bea</td>
<td>PhD</td>
</tr>
<tr>
<td>Herrle</td>
<td>Scott</td>
<td>R. MD</td>
</tr>
<tr>
<td>Hess</td>
<td>Rachel</td>
<td>MD</td>
</tr>
<tr>
<td>Hoffman</td>
<td>Erika</td>
<td>L. MD</td>
</tr>
<tr>
<td>Jonassaint</td>
<td>Charles</td>
<td>R. PhD</td>
</tr>
<tr>
<td>Kapoor</td>
<td>Wishwa</td>
<td>N. MD, MPH</td>
</tr>
<tr>
<td>Kavalieratos</td>
<td>Dionysios</td>
<td>PhD</td>
</tr>
<tr>
<td>King</td>
<td>Linda</td>
<td>A. MD</td>
</tr>
<tr>
<td>Kohli</td>
<td>Amar</td>
<td>R. MD</td>
</tr>
<tr>
<td>Kraemer</td>
<td>Kevin</td>
<td>L. MD</td>
</tr>
<tr>
<td>Kroboth</td>
<td>Frank</td>
<td>J. MD</td>
</tr>
<tr>
<td>Landsittel</td>
<td>Douglas</td>
<td>P. PhD</td>
</tr>
<tr>
<td>Levin</td>
<td>William</td>
<td>I. MD</td>
</tr>
<tr>
<td>Ling</td>
<td>Bruce</td>
<td>S. MD</td>
</tr>
<tr>
<td>Macpherson</td>
<td>David</td>
<td>S. MD</td>
</tr>
<tr>
<td>Mayowski</td>
<td>Colleen</td>
<td>A. EdD</td>
</tr>
<tr>
<td>McGarvey</td>
<td>Scott</td>
<td>A. MD</td>
</tr>
<tr>
<td>McNeil</td>
<td>Melissa</td>
<td>Ann</td>
</tr>
<tr>
<td>McGtigue</td>
<td>Kathleen</td>
<td>M. MD</td>
</tr>
<tr>
<td>Merriam</td>
<td>Sarah</td>
<td>B. MD</td>
</tr>
<tr>
<td>Mieczkowski</td>
<td>Alexandra</td>
<td>E. MD</td>
</tr>
<tr>
<td>Morone</td>
<td>Natalia</td>
<td>E. MD</td>
</tr>
<tr>
<td>Muluk</td>
<td>Visala</td>
<td>S. MD</td>
</tr>
<tr>
<td>Munthali</td>
<td>Charles</td>
<td>K. MD</td>
</tr>
<tr>
<td>Myaskovsky</td>
<td>Larissa</td>
<td>PhD</td>
</tr>
<tr>
<td>Namarka</td>
<td>Dan</td>
<td>C. MD</td>
</tr>
<tr>
<td>Ngoma</td>
<td>Jonathan</td>
<td>W. MD</td>
</tr>
<tr>
<td>Norman</td>
<td>Marie</td>
<td>K. PhD</td>
</tr>
<tr>
<td>Painter</td>
<td>Thomas</td>
<td>D. MD</td>
</tr>
<tr>
<td>Park</td>
<td>Seo Young</td>
<td>PhD</td>
</tr>
<tr>
<td>Parrish</td>
<td>Debra</td>
<td>M JD</td>
</tr>
<tr>
<td>Preisner</td>
<td>Ruth</td>
<td>M. MD</td>
</tr>
<tr>
<td>Primack</td>
<td>Brian</td>
<td>A. MD, PhD</td>
</tr>
<tr>
<td>Reitschuler Cross</td>
<td>Eva</td>
<td>B. MD</td>
</tr>
<tr>
<td>Robinson</td>
<td>Georgeanna</td>
<td>EdD</td>
</tr>
<tr>
<td>Rollman</td>
<td>Bruce</td>
<td>L. MD</td>
</tr>
<tr>
<td>Rubio</td>
<td>Doris</td>
<td>M. PhD</td>
</tr>
<tr>
<td>Salvana</td>
<td>Edsel</td>
<td>M. MD</td>
</tr>
<tr>
<td>Schell</td>
<td>Jane</td>
<td>O. MD</td>
</tr>
<tr>
<td>Schenker</td>
<td>Yael</td>
<td>MD</td>
</tr>
<tr>
<td>Smith</td>
<td>Kenneth</td>
<td>J. MD</td>
</tr>
<tr>
<td>Spagnolaeti</td>
<td>Carla</td>
<td>L. MD</td>
</tr>
<tr>
<td>Switzer</td>
<td>Galen</td>
<td>E. PhD</td>
</tr>
<tr>
<td>Tabas</td>
<td>Gary</td>
<td>H. MD</td>
</tr>
<tr>
<td>Teuteberg</td>
<td>Winifred</td>
<td>G. MD</td>
</tr>
<tr>
<td>Thomas</td>
<td>Holly</td>
<td>N. MD</td>
</tr>
</tbody>
</table>
### Tilstra
Sarah A. MD Assistant Professor of Medicine

### Tudorascu
Dana L. PhD Assistant Professor of Medicine

### Tulsy
Asher MD Associate Professor of Medicine

### Van Deusen
Reed W. MD Assistant Professor of Medicine

### Wicclair
Mark R. PhD Adjunct Professor of Medicine

### Williams
Steven C. MD Adjunct Assistant Professor of Medicine

### Yabes
Jonathan G. PhD Assistant Professor of Medicine

### Yu
Lan PhD Associate Professor of Medicine

### Zickmund
Susan L. PhD Associate Professor of Medicine

### Zimmer
Shanta M. MD Associate Professor of Medicine

### Affiliated Faculty with UPP Appointments

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Degree</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akanbi</td>
<td>Fadeke</td>
<td>B. MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Ambati</td>
<td>Deepa</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Beers</td>
<td>Emily</td>
<td>H. MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Bhatnagar</td>
<td>Mamta</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Bigi</td>
<td>Lori</td>
<td>M. MD</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Bryk</td>
<td>Jodie</td>
<td>A. MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Chang</td>
<td>Sue-Jean</td>
<td>M. MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Chen</td>
<td>Yingdi</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>DeMoise</td>
<td>David</td>
<td>C. MD</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Dudekula</td>
<td>Anwar</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Eligator</td>
<td>Nancy</td>
<td>R. MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Feterik</td>
<td>Kristian</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Freeman</td>
<td>Scott</td>
<td>D. MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Gajendran</td>
<td>Mahesh</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Giesler</td>
<td>Daniel</td>
<td>L. MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Haliko</td>
<td>Shannon</td>
<td>A. MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Inashvili</td>
<td>Ana</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Jerud</td>
<td>Elliot</td>
<td>S. MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Jimenez-Gutierrez</td>
<td>Elena</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Jin</td>
<td>Da Pan</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Jovin</td>
<td>Franziska</td>
<td>F. MD</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Kamran</td>
<td>Amir</td>
<td>S. MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Kancherla</td>
<td>Dayakar</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Koirala</td>
<td>Abbal</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Lebduska</td>
<td>Elena</td>
<td>R. MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Lewarchik</td>
<td>Anna Marie</td>
<td>W. MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Mancoll</td>
<td>Rebecca</td>
<td>E. MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Massa</td>
<td>Ryan Campbell</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Mcdams</td>
<td>David</td>
<td>J. MD</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Miller</td>
<td>David Scott</td>
<td>MD</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Munir</td>
<td>Muhammad Bilal</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Nandiwada</td>
<td>Deepa</td>
<td>R. MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Nikforov</td>
<td>Tanya</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Olaoye</td>
<td>Olanrewaju</td>
<td>A. MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Parekh</td>
<td>Natasha</td>
<td>K. MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Podgurski</td>
<td>Lisa</td>
<td>M. MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Puri</td>
<td>Aditi</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Radomski</td>
<td>Thomas</td>
<td>R. MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Name</td>
<td>Title</td>
<td>Designation</td>
<td></td>
</tr>
<tr>
<td>-------------------</td>
<td>------------------------</td>
<td>------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Ramirez</td>
<td>Edgar R. MD</td>
<td>Clinical Instructor in Medicine</td>
<td></td>
</tr>
<tr>
<td>Sands</td>
<td>Rebecca L. MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Sims</td>
<td>Jason A. MD</td>
<td>Clinical Instructor in Medicine</td>
<td></td>
</tr>
<tr>
<td>Stern</td>
<td>Jamie L. MD</td>
<td>Clinical Associate Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Szymusiak</td>
<td>John A. MD</td>
<td>Clinical Instructor in Medicine</td>
<td></td>
</tr>
<tr>
<td>Tamber</td>
<td>Anoo P. MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Thiel</td>
<td>Brent W. MD</td>
<td>Clinical Instructor in Medicine</td>
<td></td>
</tr>
<tr>
<td>Thurston</td>
<td>Andrew L. MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Toparli</td>
<td>Ahmet MD</td>
<td>Clinical Instructor in Medicine</td>
<td></td>
</tr>
<tr>
<td>Ufomata</td>
<td>Eloho Oyindasola MD</td>
<td>Clinical Instructor in Medicine</td>
<td></td>
</tr>
<tr>
<td>Umapathy</td>
<td>Chandraprakash MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Unligil</td>
<td>Peri MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Vattikuti</td>
<td>Swapna MD</td>
<td>Clinical Instructor in Medicine</td>
<td></td>
</tr>
<tr>
<td>Vento</td>
<td>Rebecca A. MD</td>
<td>Clinical Instructor in Medicine</td>
<td></td>
</tr>
<tr>
<td>Vipperla</td>
<td>Kishore MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Vu</td>
<td>Judy MD</td>
<td>Clinical Instructor in Medicine</td>
<td></td>
</tr>
<tr>
<td>Weinberg</td>
<td>Richard L. MD</td>
<td>Visiting Clinical Associate Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Willoughby</td>
<td>Katherine E. MD</td>
<td>Clinical Instructor in Medicine</td>
<td></td>
</tr>
</tbody>
</table>

**Affiliated Faculty without UPP Appointments**

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ali</td>
<td>Syed T. MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Amaranatha</td>
<td>Lakya A. MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Baade</td>
<td>Eileen MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Barresi</td>
<td>Luca MD</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Bazron, Jr.</td>
<td>Herbert C. MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Berne</td>
<td>Ellen S. MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Bernstein</td>
<td>Robert W. MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Billeh</td>
<td>Rana V. MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Black</td>
<td>Judith S. MD</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Blinn</td>
<td>David L. MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Burns</td>
<td>Emily S. MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Case</td>
<td>Bonnie K. MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Clemenza</td>
<td>Francesco MD</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Constantino</td>
<td>Angelo MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Costlow</td>
<td>James S. MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Cymerman</td>
<td>Frank R. MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Cyr</td>
<td>Jessica E. MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>D’Antoni</td>
<td>Adele MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Daroski</td>
<td>Marilyn S. MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Dickinson</td>
<td>Peter A. MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>DiNardo</td>
<td>Deborah J. MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Duca</td>
<td>Mark A. MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Edwards</td>
<td>Robert G. MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Ellis</td>
<td>Carolyn D. MD</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Feldman</td>
<td>Sharon L. DO</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Finikiotis</td>
<td>Michael W. MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Fino</td>
<td>Marsha J. MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Fiorillo, Jr.</td>
<td>Anthony B. MD</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Fletcher</td>
<td>Douglas D. MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Fridman</td>
<td>Hilary A. MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
</tbody>
</table>

Department of Medicine  
http://www.dom.pitt.edu/dgim
<table>
<thead>
<tr>
<th>Name</th>
<th>Last Name</th>
<th>First Initial</th>
<th>Degree</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gerber</td>
<td>Lawrence</td>
<td>D.</td>
<td>MD</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Ghobrial</td>
<td>Ibrahim</td>
<td>I.</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Ginchereau</td>
<td>Eugene</td>
<td>H.</td>
<td>MD</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Gleesoon</td>
<td>George</td>
<td>H.</td>
<td>MD</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Green</td>
<td>Richard</td>
<td>L.</td>
<td>MD</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Harinstein</td>
<td>David</td>
<td>A.</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Harris</td>
<td>Bernadette</td>
<td>G.</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Hernandez-Baravoglia</td>
<td>Cesar</td>
<td>M.</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Horowitz Tabas</td>
<td>Debra</td>
<td>L.</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Ingamis</td>
<td>Sanae</td>
<td></td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Islam</td>
<td>Nadeem</td>
<td>U.</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Jarvis</td>
<td>James</td>
<td>R.</td>
<td>MD</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Kanel</td>
<td>Keith</td>
<td>T.</td>
<td>MD</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Karpov</td>
<td>Oksana</td>
<td>O.</td>
<td>DO</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Katz</td>
<td>Carissa</td>
<td>L.</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Khan</td>
<td>Abdul</td>
<td>Q.</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Khan</td>
<td>Noor</td>
<td></td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Khurana</td>
<td>Ajay</td>
<td>K.</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Kiazand</td>
<td>Mehrshid</td>
<td></td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Kokales</td>
<td>John</td>
<td>G.</td>
<td>MD</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Kraftowitz</td>
<td>Robert</td>
<td>E.</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Kri:cher</td>
<td>Emanuel</td>
<td>MD</td>
<td></td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Lamb</td>
<td>William</td>
<td></td>
<td>DO</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Lamonaca</td>
<td>Vincenzo</td>
<td></td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Leff</td>
<td>Louis</td>
<td>E.</td>
<td>MD</td>
<td>Clinical Professor of Medicine</td>
</tr>
<tr>
<td>Levine</td>
<td>Macy</td>
<td>I.</td>
<td>MD</td>
<td>Clinical Professor of Medicine</td>
</tr>
<tr>
<td>Lilienthal</td>
<td>David</td>
<td>S.</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Lipinski</td>
<td>Joseph</td>
<td>L.</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Lozano</td>
<td>Ramon</td>
<td>G.</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Lubin</td>
<td>Fritz</td>
<td>J.</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Malek</td>
<td>Siamak</td>
<td>MD</td>
<td></td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>March</td>
<td>Vicki</td>
<td></td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>McElhatten</td>
<td>Shirley</td>
<td>B.</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Myron</td>
<td>Carol</td>
<td>S.</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Nicassio</td>
<td>Anthony</td>
<td></td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Nigborowicz</td>
<td>Ronald</td>
<td>J.</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Patel</td>
<td>Hitendra</td>
<td>R.</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Reasbeck</td>
<td>Jeffrey</td>
<td>L.</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Roguszka-Jozwik</td>
<td>Mariola</td>
<td></td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Rusiecki</td>
<td>Jennifer</td>
<td>M.</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Salis</td>
<td>Paola</td>
<td></td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Seewald</td>
<td>Tracy</td>
<td>R.</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Sestric</td>
<td>George</td>
<td>B.</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Sgro</td>
<td>Gaetan</td>
<td>S.</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Shetty</td>
<td>Ashok</td>
<td>K.</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Shroff</td>
<td>Swati</td>
<td>M.</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Sohnen</td>
<td>Adam</td>
<td>E.</td>
<td>MD</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Sonel</td>
<td>Elif</td>
<td></td>
<td>MD</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Spataro</td>
<td>Brielle</td>
<td>M.</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Spinola</td>
<td>Anthony</td>
<td>MD</td>
<td></td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
</tbody>
</table>
### New Faculty Hires

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>MI</th>
<th>Degree</th>
<th>Primary Title</th>
<th>Division</th>
<th>Previous Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beers</td>
<td>Emily</td>
<td>H.</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td>General Medicine</td>
<td>Clinical Assistant Professor, University of Rochester, NY</td>
</tr>
<tr>
<td>Chang</td>
<td>Sue-Jean</td>
<td>M</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td>General Medicine</td>
<td>Assistant Professor, University of New Mexico</td>
</tr>
<tr>
<td>Chen</td>
<td>Yingdi</td>
<td></td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
<td>General Medicine</td>
<td>Internal Medicine Resident, Hofstra North Shore-LIJ, Manhasset, NY</td>
</tr>
<tr>
<td>Farkas</td>
<td>Amy</td>
<td>H.</td>
<td>MD</td>
<td>Visiting Instructor in Medicine</td>
<td>General Medicine</td>
<td>Internal Medicine Resident, UPMC</td>
</tr>
<tr>
<td>Jerud</td>
<td>Elliot</td>
<td>S.</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td>General Medicine</td>
<td>Hospitalist, Swedish Medical Center, WA</td>
</tr>
<tr>
<td>Jimenez-Gutierrez</td>
<td>Elena</td>
<td></td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
<td>General Medicine</td>
<td>Internal Medicine Resident, UPMC</td>
</tr>
<tr>
<td>Jin</td>
<td>Da Pan</td>
<td></td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
<td>General Medicine</td>
<td>Internal Medicine Resident, UPMC</td>
</tr>
<tr>
<td>Massa</td>
<td>Ryan</td>
<td></td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
<td>General Medicine</td>
<td>Clinical Research in Cardiology, University of Pittsburgh</td>
</tr>
<tr>
<td>Mayowski</td>
<td>Colleen</td>
<td>A.</td>
<td>EdD</td>
<td>Instructor in Medicine</td>
<td>General Medicine</td>
<td>Instructor, Program Coordinator, Science Education Outreach, University of Pittsburgh</td>
</tr>
<tr>
<td>Merriam</td>
<td>Sarah</td>
<td>B.</td>
<td>MD</td>
<td>Visiting Instructor in Medicine</td>
<td>General Medicine</td>
<td>Chief Medical Resident, UPMC</td>
</tr>
<tr>
<td>Munir</td>
<td>Muhammad</td>
<td></td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
<td>General Medicine</td>
<td>Internal Medicine Resident, UPMC</td>
</tr>
<tr>
<td>Nikiforov</td>
<td>Tanya</td>
<td></td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
<td>General Medicine</td>
<td>Internal Medicine Resident, UPMC</td>
</tr>
<tr>
<td>Last Name</td>
<td>First Name</td>
<td>MI</td>
<td>Degree</td>
<td>Primary Title</td>
<td>Division</td>
<td>Previous Position</td>
</tr>
<tr>
<td>-----------</td>
<td>------------</td>
<td>----</td>
<td>---------</td>
<td>----------------------------------------</td>
<td>---------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Norman</td>
<td>Marie</td>
<td>K.</td>
<td>PhD</td>
<td>Visiting Associate Professor of Medicine</td>
<td>General Medicine</td>
<td>Associate Director, Carnegie Mellon U</td>
</tr>
<tr>
<td>Parekh</td>
<td>Natasha</td>
<td>K.</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
<td>General Medicine</td>
<td>Internal Medicine Chief Resident, UPMC</td>
</tr>
<tr>
<td>Szymusiak</td>
<td>John</td>
<td>A.</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
<td>General Medicine</td>
<td>Internal Medicine - Pediatrics Chief Resident, UPMC</td>
</tr>
<tr>
<td>Thiel</td>
<td>Brent</td>
<td>W.</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
<td>General Medicine</td>
<td>Internal Medicine Resident, UPMC</td>
</tr>
<tr>
<td>Ufomata</td>
<td>Eloho</td>
<td></td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
<td>General Medicine</td>
<td>Internal Medicine Resident, UPMC</td>
</tr>
</tbody>
</table>
## POST DOCS

### Current Post Docs in FY 2015-2016

<table>
<thead>
<tr>
<th>Employee Last Name</th>
<th>Employee First Name</th>
<th>Degree Code</th>
<th>Current Title</th>
<th>Summary of activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brown</td>
<td>Amanda</td>
<td>MD</td>
<td>Palliative Care Fellow</td>
<td>Amanda Brown MD is a first-year fellow in the Hospice and Palliative Medicine Fellowship Program. Dr. Brown received a BS from Vanderbilt University in 2003 and an MD in 2007 from the University of Tennessee College of Medicine. She completed her residency in pediatrics at the University of Pittsburgh Medical Center in 2010. Dr. Brown was appointed Assistant Professor of Pediatrics in 2010 in the Diagnostic Referral Service at Children’s Hospital of Pittsburgh before moving into the Vascular Anomalies Clinic at Children’s Hospital in 2012.</td>
</tr>
<tr>
<td>Farkas</td>
<td>Amy</td>
<td>MD</td>
<td>General Internal Medicine Fellow</td>
<td>Amy Farkas MD is a first-year General Internal Medicine Fellow in the women’s health track. She is currently pursuing a master's degree in medical education. She spends her clinical time at the VA Pittsburgh Healthcare System where she has her own primary care clinic and precepts housestaff, in both the primary care clinic and the inpatient wards.</td>
</tr>
<tr>
<td>Glaser</td>
<td>Christine</td>
<td>MD</td>
<td>Palliative Care Fellow</td>
<td>Christine Glaser MD is a first-year fellow in the the Hospice and Palliative Medicine Fellowship Program. Dr. Glaser obtained a BA in 2008 from Hope College and an MD in 2012 from Loyola University Chicago Stritch School of Medicine. She completed a one-year preliminary medicine residency in 2013 at the University of Nevada Reno before becoming an internal medicine resident at the University of Pittsburgh Medical Center. Dr. Glaser’s volunteer experience includes missionary work in Bolivia and Guatemala.</td>
</tr>
<tr>
<td>Haliko</td>
<td>Shannon</td>
<td>MD</td>
<td>Palliative Care Fellow</td>
<td>Shannon Haliko MD is a second-year fellow in the Hospice and Palliative Medicine Fellowship Program. Dr. Haliko received her BS from the University of Florida and her MS from Tulane University. She attended the University of Miami Leonard School of Medicine where she received an MD before completing her internal medicine residency as well as a fellowship in pulmonary and critical care at Jackson Memorial Hospital, University of Miami.</td>
</tr>
<tr>
<td>Lebduska</td>
<td>Elena</td>
<td>MD</td>
<td>General Internal Medicine Fellow</td>
<td>Elena Lebduska MD is a second-year General Internal Medicine Fellow focusing on medical education. Her interests include quality improvement projects in the outpatient setting, improving continuity of care in residency clinics, teaching residents to be preceptors, and reflection on the experiences of trainees in medicine.</td>
</tr>
<tr>
<td>Merriam</td>
<td>Sarah</td>
<td>MD</td>
<td>General Internal Medicine Fellow</td>
<td>Sarah Merriam MD is a first-year General Internal Medicine Fellow. She is currently pursuing a master’s degree in medical education and is interested in both medical student and resident education surrounding women’s health issues, including contraception, preconception counseling, menopause, and preventative care. Dr. Merriam’s research interests include curriculum development, quality improvement, and faculty development. Her clinical responsibilities include caring for female veterans at the VA Pittsburgh Healthcare System and the supervision of housestaff in both primary care outpatient clinics and inpatient wards.</td>
</tr>
</tbody>
</table>

http://www.dom.pitt.edu/dgim
<table>
<thead>
<tr>
<th>Employee Last Name</th>
<th>Employee First Name</th>
<th>Degree Code</th>
<th>Current Title</th>
<th>Summary of activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nandiwada</td>
<td>Deepa</td>
<td>MD</td>
<td>General Internal Medicine Fellow</td>
<td>Deepa Rani Nandiwada MD is a second-year General Internal Medicine Fellow pursuing a master's degree in medical education. Dr. Nandiwada practices primary care medicine at UPMC Montefiore Hospital as well as provides inpatient care with resident-led teams.</td>
</tr>
<tr>
<td>Radomski</td>
<td>Tom</td>
<td>MD</td>
<td>General Internal Medicine Fellow</td>
<td>Tom Radomski MD is a board-certified general internist and clinical research fellow within the Division of General Internal Medicine. He is supported by a T32 primary care training grant through the Health Resources and Services Administration. He is studying how the dual use of VA and Medicare services impacts the quality and utilization of care for veterans with diabetes mellitus.</td>
</tr>
<tr>
<td>Rusiecki</td>
<td>Jennifer</td>
<td>MD</td>
<td>General Internal Medicine Fellow</td>
<td>Jennifer Rusiecki MD is a second-year General Internal Medicine Fellow in the women’s health track. She is currently pursuing a master’s degree in medical education. Her clinical responsibilities include primary care and precepting housestaff at the VA Pittsburgh Healthcare System. She is currently investigating how best to teach shared medical decision-making to housestaff.</td>
</tr>
<tr>
<td>Shroff</td>
<td>Swati</td>
<td>MD</td>
<td>General Internal Medicine Fellow</td>
<td>Swati Shroff MD is a second-year General Internal Medicine Fellow in the women’s health track and a clinical instructor in medicine. Her mission is to improve women’s health through innovative, patient-centered primary care, specifically through the clinical practice of evidence-based, patient-centered primary care; implementation of innovative primary care models; and education of future generations of women’s health providers.</td>
</tr>
<tr>
<td>Siropaides</td>
<td>Caitlin</td>
<td>DO</td>
<td>Palliative Care Fellow</td>
<td>Caitlin Siropaides DO is a first-year fellow in the Hospice and Palliative Medicine Fellowship Program. Dr. Siropaides holds a BS in biochemistry from Allegheny College and a DO in from Philadelphia College of Osteopathic Medicine. She completed her residency in internal medicine in 2015 at the University of Pittsburgh Medical Center. From 2006 to 2007, Dr. Siropaides served as the Executive Director of Allegheny College Chapter of Up 'til Dawn for St. Jude Children’s Hospital. Her previous volunteer experience includes missionary work in Jamaica.</td>
</tr>
<tr>
<td>Spataro</td>
<td>Brielle</td>
<td>MD</td>
<td>General Internal Medicine Fellow</td>
<td>Brielle Spataro MD is a second-year General Internal Medicine Fellow in the women’s health track. She is currently obtaining a master’s degree in medical education at the University of Pittsburgh. She also practices primary care at the VA Pittsburgh Healthcare System, focusing on women’s health issues including contraception, preconception counseling, menopause, and preventative care. She also attends on the hospital service at the VAPHS.</td>
</tr>
<tr>
<td>Stein</td>
<td>Dillon</td>
<td>DO</td>
<td>Palliative Care Fellow</td>
<td>Dillon Stein DO is a first-year fellow in the Hospice and Palliative Medicine Fellowship Program. Dr. Stein received a BA from Alfred University in 2007 and a DO from West Virginia School of Osteopathic Medicine in 2011. Dr. Stein received the TOUCH Award in 2009. He completed his residency in internal medicine at Western Allegheny Health System in 2015, where he served as chief resident.</td>
</tr>
</tbody>
</table>
### Terminating Post Docs in FY 2015-2016

<table>
<thead>
<tr>
<th>Employee Last Name</th>
<th>Employee First Name</th>
<th>Degree Code</th>
<th>Current Title</th>
<th>Summary of activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Szymusiak</td>
<td>John</td>
<td>MD</td>
<td>General Internal Medicine Fellow</td>
<td>John Szymusiak MD is a first-year General Internal Medicine Fellow and is pursuing a master’s degree in medical education. He serves both adult and pediatric patients at the Primary Care Center in Turtle Creek and is also an attending physician at the general internal medicine inpatient service at UPMC Shadyside.</td>
</tr>
<tr>
<td>Ufomata</td>
<td>Eloho</td>
<td>MD</td>
<td>General Internal Medicine Fellow</td>
<td>Eloho Ufomata MD is a first-year General Internal Medicine Fellow. She received a BS in biology and BS in psychology in 2008 from the University of Kentucky College of Arts and Sciences. She completed her internal medicine residency at the University of Pittsburgh Medical Center in 2015.</td>
</tr>
<tr>
<td>Benson</td>
<td>Maggie</td>
<td>MD</td>
<td>Assistant Professor of Medicine</td>
<td>Maggie Benson MD accepted a position as Assistant Professor of Medicine in the Division of General Internal Medicine at the University of Pittsburgh.</td>
</tr>
<tr>
<td>Dorra</td>
<td>Helen</td>
<td>MD, MPH</td>
<td>Medical Director, UPMC East and McKeesport</td>
<td>Helen Dorra MD MPH serves as the Palliative Care Medical Director at UPMC East and McKeesport. She completed her MS in medical education in June 2015.</td>
</tr>
<tr>
<td>Holbein</td>
<td>Monika</td>
<td>MD</td>
<td>Faculty, West Virginia University Hospital</td>
<td>Monika Holbein MD completed her MS in medical education in June 2015. Dr. Holbein accepted a position with West Virginia University Hospital.</td>
</tr>
<tr>
<td>Jordan</td>
<td>Allison</td>
<td>MD</td>
<td>Faculty, Hospice &amp; Palliative CareCenter, in Winston-Salem, NC</td>
<td>Allison Jordan MD completed her Master’s degree in medical education in June 2015. Dr. Jordan accepted a position with Hospice and Palliative CareCenter, located in Winston-Salem, NC.</td>
</tr>
<tr>
<td>Keen</td>
<td>Jordan</td>
<td>MD</td>
<td>Physician, Capital Caring, Falls Church, VA</td>
<td>Jordan Keen MD accepted a position with Capital Caring in Falls Church, VA.</td>
</tr>
<tr>
<td>Kohli</td>
<td>Amar</td>
<td>MD</td>
<td>Assistant Professor of Medicine</td>
<td>Amar Kohli MD accepted a position as Assistant Professor of Medicine in the Division of General Internal Medicine at the University of Pittsburgh.</td>
</tr>
<tr>
<td>Malhotra</td>
<td>Sonia</td>
<td>MD</td>
<td>Faculty, Dept of Palliative Care, Ochsner Health System, New Orleans, LA</td>
<td>Sonia Malhotra MD serves as the Medical Director and Associate Section Chief of Ochsner Palliative Care, and is also an Assistant Professor of Medicine with Ochsner Clinical School and Tulane University School of Medicine. Dr. Malhotra completed her Master’s degree in medical education in June 2015.</td>
</tr>
<tr>
<td>Mieczkowski</td>
<td>Alex</td>
<td>MD</td>
<td>Assistant Professor of Medicine</td>
<td>Alex Mieczkowski MD accepted a position as an Assistant Professor of Medicine in the Division of General Internal Medicine at the University of Pittsburgh.</td>
</tr>
<tr>
<td>Soni</td>
<td>Ritu</td>
<td>MD</td>
<td>Faculty, University of Massachusetts</td>
<td>Ritu Soni MD accepted a position with the University of Massachusetts.</td>
</tr>
</tbody>
</table>

[http://www.dom.pitt.edu/dgim](http://www.dom.pitt.edu/dgim)
PUBLICATIONS

High Impact Publications


A mind-body program modeled on mindfulness-based stress reduction was studied in 282 adults 65 years and older with chronic low back pain. Participants were followed for six months after program completion and were assessed on pain and physical function. The program reduced pain over the short- and long-term. Function improved in the short-term and most participant kept their gains at six months, but the functional gains over the long-term were not significantly different from the control group.


This was the first national, longitudinal study to demonstrate that e-cigarette experimentation among youth, which is very common because of the compelling flavorings and permissive policies, is significantly associated with transition to traditional cigarette smoking. This study was cited by the FDA in its recent landmark decision to regulate e-cigarettes as tobacco products. This study was covered in Time magazine, The Washington Post, U.S. News & World Report, and multiple other news outlets.


In a systematic content analysis of cancer-center advertising in top U.S. consumer magazines and television networks, we found frequent use of emotional appeals evoking hope and fear, rarely accompanied by information about risks, benefits, costs, or insurance availability. This high-impact primary research, published in Annals of Internal Medicine, was also the subject of multiple articles in the popular press.


Donohue JM, Papademetriou E, Henderson RR, Frazee SG, Ebner C, Mulcahy AW, Mehrotra A, Bharill S, Cui C, Stein BD, Gellad WF. Early marketplace enrollees were older and used more medication than later enrollees; marketplaces pooled risk. Health Aff (Millwood). 2015;34(6):1049-1056.

Dunbar MS, Shiffman S, Kirchner TR, Tindle HA, Scholl SM. Nicotine dependence, "background" and cue-induced craving and smoking in the laboratory. Drug Alcohol Depend. 2014;142:197-203.


Gellad WF, Zhao X, Thorpe CT, Mor MK, Good CB, Fine MJ. Dual use of Department of Veterans Affairs and Medicare benefits and use of test strips in Veterans with type 2 diabetes mellitus. JAMA Intern Med. 2015;175(1):26-34.


Good CB, Gellad WF. Off-label drug use and adverse drug events: turning up the heat on off-label prescribing. JAMA Intern Med. 2016;176(1):63-64.


Soneji S, Sargent JD, Tansky SE, Primack BA. Associations between initial waterpipe tobacco smoking and snus and subsequent cigarette smoking: Results from a longitudinal study of US adolescents and young adults. JAMA Pediatrics. 2015;169(2):129-136.


Our mission is to enhance the health of older adults by providing superb clinical care, training others to do the same, and conducting research to ensure that tomorrow’s care is better than today’s. Given the national declines in funding, we are focusing more than ever on innovation as our primary strategy for achieving these goals.

Our efforts in the past year reflect this vision. Clinically, we launched a Geriatric Trauma Service to provide a proactive, system-based approach for the more than 2,000 older trauma patients admitted annually to UPMC’s flagship hospital (Presbyterian). We translated our innovative Fracture Liaison Service from a grant-funded initiative into a clinical program serving UPMC’s two major hospitals. We started a geriatric cardiology service to improve assessment and care of frail elderly cardiac patients. We expanded our geriatric pain service and began a new inpatient consult service at UPMC Mercy. We maintained our hospital-wide “gerontification” program at UPMC Magee, as well as our medical homes, and expanded our HELP program to prevent delirium at UPMC Shadyside. Led by Dr. Steven Handler MD PhD CMD, we also collaborated in the creation of a new UPMC company designed to deliver state-of-the-art telemedicine consultations after hours to nursing home residents. Finally, having reduced unplanned admissions from 19 nursing homes by 26% over three years, we were refunded with a new $20 million grant from CMS/Medicare’s Innovation Center to expand our efforts to 38 nursing homes, in addition to those owned by UPMC.

Educationally, we enhanced our interdisciplinary training programs for students of medicine, pharmacy, and nursing, and we added therapy students. Dr. Debra Weiner MD published her innovative approach to guide physicians in the evaluation and management of chronic pain. We created a new geriatric palliative care fellowship and filled all of our fellowship and T32 slots with excellent candidates. Finally, with support from our Pepper Center, we partnered with Jean Ferketish PhD to offer leadership training to junior faculty members in aging across the University.

In research, we found that: (1) chronic use of anticholinergics increased the risk of dementia by 50% over three years; (2) Although bisphosphonates improve bone metabolism among frail elderly, this may not decrease fractures; (3) Functional decline reflects the contribution of not only aging and disease but also baseline function, medications, and sociodemographic factors (and some biomarkers correlate with it); (4) Gait speed predicts not only mortality but also the likelihood and timeframe of disability. In addition, we secured new funding, including NIH support for heart failure, osteoporosis, incontinence, and a Center of Excellence in Chronic Pain; AHRQ funding to improve antibiotic use in nursing homes, and VA funding to test a new approach to chronic low back pain. We also continued serving on editorial boards as well as advisory boards of NIH, CDC, ACIP, and NOF, and consultants to CMS, HEDIS and NQF.

The Hartford Foundation renewed our designation as a National Center of Excellence. U.S. News and World Report again ranked us among the nation’s best in its Best Hospitals (#11) and Best Graduate Schools (#10) issues. Such recognition reflects not only the Division’s depth and breadth of expertise but also the strategic collaborations we have built with the University, UPMC, UPMC’s Health Plan, long-term care facilities, and our VA GRECC—efforts that have allowed us to continue to respond in innovative ways to declines in reimbursement and research funding.

The Division’s success also creates opportunities related to health care reform and the need to improve the quality and efficiency of geriatric care in every setting. This need, which exists both locally and nationally, is growing daily as is the appreciation that working faster will not suffice. New care models, training, and research will be required. The Division’s expertise, and its increasingly close ties to other key departments, makes it well-positioned to respond.
RESEARCH

Our research goals are to conduct cutting-edge research that improves the health and health care of older adults and to train the next generation of investigators to do the same. We utilize a multisystem, multidisciplinary, and translational approach that integrates biology, physiology, clinical medicine, behavior, social support, community, and health systems. Areas of inquiry include biology of longevity, successful aging, mobility/falls, sarcopenia, cardiology, chronic pain, frailty, adverse drug effects, osteoporosis, illness recovery/rehabilitation, incontinence, and long-term care. Our funding contributed to the University’s being among the nation’s top recipients of NIH funding in aging.

Division faculty were again recognized for their research. Investigators showcased their research with 24 presentations at the annual meetings of the American Geriatrics Society and Gerontological Society of America. Dr. Neelesh Nadkarni MD PhD FRCPC received the AGS’ New Investigator Award. Dr. Joe Hanlon PharmD MS received the Abrams Award in Geriatric Clinical Pharmacology from the American Society of Clinical Pharmacology and Therapeutics and also the Sustained Contributions to Research award from the American Society of Health Systems Pharmacists. Division faculty also served on editorial boards and as visiting professors, committee members/chairs, and keynote speakers at national and international meetings. For example, Dr. Hanlon served on the AGS’ “Beers Drugs” Update Panel and co-chaired the NIA/ACC’s U13 Conference on Polypharmacy in Older Adults with Cardiovascular Disease; Drs. Susan Greenspan MD and Newman served on NIA’s Board of Scientific Counselors and External Advisory Council, respectively; and Dr. Daniel Forman MD served as Chair-Elect for the American Heart Association’s Council on Clinical Cardiology’s Committee on Older Populations. Several faculty members served on prominent editorial boards.

With the departure of five investigators, largely to prestigious positions elsewhere, we have devoted the past two years to recruitment and rebuilding. The attached chart reflects funding for which we serve as PI but it does not include another $1.8 million of VA funding we secured in FY16.

In FY16, new grants included: renewal of our Hartford Foundation Center of Excellence in Geriatric Medicine (Resnick), an NIH-funded Center of Excellence in Chronic Pain (Weiner), and CMS/CMMI renewal of the RAVEN nursing home project (Reynolds, Handler, Nace). NIH funded a K07 to support our growing research efforts in the long-term care setting (Greenspan); two new R01s on osteoporosis (Greenspan); an R21 to determine the causes of nocturia (Tyagi); an R56 to evaluate an innovative new approach to CHF/HFpEF (Forman); and an R56 focused on the brain’s role in geriatric incontinence (Resnick/Clarkson). Dr. Debra Weiner’s new VA Merit Review proposal, which received a perfect score, was also funded and will test her patient-centered approach to chronic low back pain vs. an image-guided approach. HRSA funded a new GWEP proposal to better manage dementia (Wright/Schulz).

Ongoing Division-led research comprises numerous federally and non-federally-funded efforts: (1) NIH Centers/Program Projects: a P30 Pepper Older American’s Independence Center (Greenspan); a Training (T32) grant to promote clinical training in geriatrics/gerontology; and a Leadership K07 to create a Center of Excellence in Geriatric Pharmacotherapy (Hanlon); (2) Multiple NIH R01s: CNS mechanisms mediating therapeutic response in overactive bladder (Resnick); neural resilience in mobility impairment (Rosano/Hanlon); impact of CNS drugs on common geriatric...
syndromes (Hanlon); efficacy of zoledronic acid for osteoporosis in institutionalized elderly (Greenspan, Nace, Resnick); racial disparities of Medicare Part D (Hanlon); risk stratification of older persons with acute myocardial infarction (Forman); a PCORI trial of home vs. center-based cardiac rehabilitation (Forman); and a pragmatic multisite NIH/PCORI-funded trial to prevent injurious falls among high risk elderly (Greenspan/Resnick) (3) VA studies: the role of hip arthritis in chronic low back pain (Weiner); development and validation of clinical prediction rules in seniors with lumbar spinal stenosis (Weiner); and a telemedicine approach to improve care of community-based dementia patients (Rossi) (4) Career Development Awards: Dr. Nadkarni's new K23 on Alzheimers and Dr. Wright's K01 Geriatric Academic Career Award, supporting creation of a long-term care curriculum for interprofessional training (5) AHRQ grants: reducing adverse drug events in nursing homes (Handler, Hanlon); improving outcomes of UTI in long-term care facilities (Nace); telemedicine to transform medication review for high-risk drugs in the nursing home (Handler); and two complementary grants to devise and implement a novel antibiotic stewardship intervention for nursing homes (Nace) (6) Foundation support: cumulative CNS drug dosage and serious fall injuries (Donaghue; Hanlon), awards from the Mary Campbell Foundation and Pittsburgh Foundation (Resnick) that build upon our system-based approaches to delirium prevention, detection, and treatment (7) Pitt/UPMC-funding: a study previously funded by the National Osteoporosis foundation to establish a Fracture Liaison Service (Greenspan); factors involved in premature and delayed aging using next generation DNA sequencing (Greenspan/Resnick); situational triggers of urge incontinence (Clarkson); and oral nitrite therapy to improve skeletal muscle bioenergetics in older patients (Forman) (8) Industry support: teriparatide's efficacy in healing atypical femoral shaft fractures (Eli Lilly, Greenspan); risedronate for patients with severe osteoporosis (Eli Lilly, Greenspan); and a multicenter, randomized and alendronate-controlled study of the efficacy and safety of AMG 785 (Amgen, Greenspan).

Funded Collaborations: We also collaborate with PIs in other sites. New federally-funded projects included an R01 to reduce adverse drug events after discharge to nursing homes (Handler) and another to determine osteoporosis risk in smokers (Greenspan, Bon); an R56 to characterize aging's impact on urothelial function (Resnick, Birder); an R21 to use biomarkers to predict lung function decline in physiologically normal smokers (Perera, Sciurba); three new VA Merit Reviews, including one to describe patterns, determinants, and consequences among veterans receiving opiates from VA and non-VA sources (Hanlon), one to improve safety and appropriateness of prescribing for demented veterans who receive drugs within and outside of the VA (Hanlon), and one of cumulative CNS medication dosage and serious fall injuries (Hanlon, Thorpe); and a PCORI project to evaluate exercise coaching to reduce fractures (Greenspan, McTigue). Ongoing collaborations include a P01 to identify mechanisms underlying stochastic damage of aging (Robbins, Perera) and another to use new approaches to lower urinary tract dysfunction due to spinal cord injury (Kanai, Perera); 3 R01s, including one to activate patients with osteoporosis (Saag, Greenspan), one to examine the impact of obesity on body segment parameters, gait, and function in older adults (Cham, Perera), and one to assess the impact of improving vitamin D status on vascular health and metabolic syndrome risk (Rajakumar, Greenspan); an R24 to establish the research infrastructure needed to facilitate analyses of Medicare Advantage plans (Gurwitz, Greenspan); a PCORI study to devise and evaluate a novel group exercise program to reduce falls in assisted living facilities (Brach, Perera); a K01 to devise a falls risk monitoring algorithm using a data mining technique (Boyce, Perera); care of Alzheimer's patients (P50 ADRC, Lopez/Rodriguez); exercise to prevent disability (the NIH's LIFE study [Nadkarni, Newman]); the effect of brain white matter on step initiation (Nadkarni); a task-specific approach to improving gait and mobility (Brach, Perera); a study evaluating the role of co-existing hip impairments on chronic low back pain in older adults (Weiner); the effectiveness of a mind-body program for seniors with chronic low back pain (Weiner); and an R18 evaluating dissemination of a diabetes prevention program in seniors (Venditti, Greenspan). Several Division faculty members also helped to develop and lead the CMS/CMMI-funded RAVEN grant to decrease unplanned admissions from SNFs to hospitals (Nace, Handler).

Finally, our research training grants support junior faculty, fellows, and medical students. Our NIH-funded T32 supports sixsummer positions and three year-long positions for medical students, as well as four postdoctoral positions. Dr. Studenski's former NIH K07 Leadership Award allowed her to create a Concentration in Aging Research for the Clinical Research Training Program. Finally, our Pepper Center includes an embedded K award through the Research Career Development Core led by Dr. Greenspan, and Dr. Nace collaborates on the University's HRSA-funded Geriatric Education Center.

http://www.dom.pitt.edu/geri
Faculty Research Interests

Becky Clarkson PhD
An Instructor of Medicine, Dr. Clarkson is a physicist with experience developing clinical tests and diagnostic tools related to bladder dysfunction. Her current research focuses on the link between the brain and the bladder in urge urinary incontinence and the development of new and improved brain imaging technologies. She received an Aging Institute pilot grant to investigate the psychological component of urine leakage and is developing new ways to elicit urinary symptoms in a controlled environment.

Daniel Forman MD
A Professor of Medicine, Dr. Forman is dually trained in Geriatrics and Cardiology, and he holds appointments in both Divisions at UPMC as well as and in the Geriatrics, Research, Education and Clinical Center and Cardiology at the Veterans Administration Pittsburgh Healthcare System (VAPHS). With NIH funding, he is studying the benefit of oral nitrite capsules for fatigue and function in older adults with heart failure and preserved ejection fraction. This study includes focus on skeletal muscle mitochondrial bioenergetics (respirometry and MR spectroscopy) as well as intracardiac hemodynamics. With VA Merit funding, he is comparing the impact of different training regimens (strength, aerobic, and inspiratory muscle training) on skeletal muscle morphology and gene expression, as well as functional capacity. He is also funded by PCORI to study novel strategies to improve cardiac rehabilitation, especially methods to achieve improved enrollment, adherence, and benefit for complex, older cardiovascular patients.

Susan Greenspan MD
A Professor of Medicine, Dr Greenspan is dually-trained in Geriatrics and Endocrinology. She studies geriatric osteoporosis, including its pathophysiology, evaluation, and treatment, and at UPMC, she serves as Director of both the Osteoporosis Prevention and Treatment Center and Bone Health at Magee Women's Hospital. A former member of NIH/NIA's Board of Scientific Counselors, she now serves on NIA's Clinical Trial Advisory Panel. She is also Vice President of the National Osteoporosis Foundation and a member of its Board of Trustees. Her current R01-funded research focuses on osteoporosis in institutionalized elderly, including new treatment modalities and new assessments of bone strength. In addition, she is PI of both our NIH-funded "Pepper Center" (and Director of its Research Career Development Core) and our NIH T32 Program in Clinical Research Training-Geriatrics/Gerontology.

Steven M. Handler MD PhD CMD
An Associate Professor of Geriatrics, Dr. Handler also holds appointments in Biomedical Informatics and in Clinical and Translational Research. In addition to his role as Director of Geriatric Telemedicine Programs, he serves as Chief Medical Informatics Officer for UPMC Community Provider Services, and as Medical Director for Telemedicine and Health Information for the RAVEN (Reduce AVoidable hospitalization using Evidence-based interventions for Nursing facilities in Western Pennsylvania) CMS Innovation Award. A practicing geriatrician with medical director responsibilities, Dr. Handler's primary research focuses on medication and patient safety for older adults in a variety of settings. He is also developing a new care model focusing on the use of telemedicine to improve access to high-quality medical care in the nursing home. His goal is to develop this into a successful commercial entity.

Joseph Hanlon PharmD MS
A Professor of Medicine, Dr Hanlon is also a Health Scientist with both the Center for Health Equity Research and Promotion (CHERP) and the Geriatric Research Education and Clinical Center (GRECC) at the Pittsburgh VA. His research focuses on three themes: drug-related problems; racial disparities in medication use; and drug-induced geriatric syndromes. He serves as a PI and Co-I on a number of federally-funded grants and on the editorial board of several journals.

David Nace MD MPH
Dr. Nace is an Associate Professor whose research focuses primarily on infectious disease in long-term care. His interest in antibiotic stewardship is funded by three AHRQ studies: two of the studies, for which he serves as co-investigator, are designing and testing a national antimicrobial stewardship toolkit for nursing facilities; the third, for
which he serves as PI, will update guidelines for urinary tract infection (UTI) management and then implement a program to improve its management in 40 nursing homes in four states. In addition, he recently completed the first randomized trial to compare high and regular dose flu vaccine in long-term care. He also serves as Co-Medical Director for our $19 million CMS Innovations Award project (RAVEN), which has developed innovative approaches to reducing unplanned hospital transfers from nursing homes. Finally, he collaborates with other Division researchers on a variety of NIH, AHRQ, and foundation-funded studies of older adults regarding infection control, osteoporosis management, adverse drug events, palliative care, interprofessional training, and quality assessment and improvement.

Neelesh Nadkarni MD PhD
An Assistant Professor and funded by an NIH K23, Dr Nadkarni’s research focuses on the impact of brain amyloid deposition and cerebral small-vessel disease on the interface between mobility and cognition in older adults. He is also conducting a pilot study funded by the University of Pittsburgh's NIH-funded ADRC, and collaborates with other Pitt investigators serving as co-investigator on several on-going studies funded by the NIA.

Anne B. Newman MD MPH
Dr. Newman is Professor and Chair of the Department of Epidemiology, with a secondary appointment as Professor of Medicine in Geriatrics. A member of NIH/NIA’s National Advisory Council on Aging, she is Principal Investigator for several large population studies and clinical trials and also serves as Director of the Center for Aging and Population Health at the Graduate School of Public Health. In addition, she collaborates with Dr. Greenspan as Co-PI of our Pepper Center, with Dr. Hanlon in the Health ABC Study, and with Dr. Nadkarni on the LIFE Study. Her research focuses on the factors associated with disability and healthy aging.

Subashan Perera PhD
An Associate Professor, Dr. Perera is a biostatistician with special interest in aging, time series analysis, and classification and regression trees. His work has involved estimating criteria for clinically meaningful change in physical performance measures of the elderly, and examining their association with future outcomes using large data sets. Dr. Perera also co-leads the Data Management and Analysis Core of our Pepper Center, in addition to serving as co-investigator for several other NIH, AHRQ, VA and PCORI grants funded within and outside of the Division.

Neil M. Resnick MD
A Professor of Medicine and Division Chief, Dr. Resnick's research focuses on the pathophysiology and therapeutic approach to geriatric syndromes. He serves as PI on NIH-funded multidisciplinary studies of urinary incontinence which incorporate physiologic, neuroimaging, clinical, pharmacological and behavioral research aims. He serves as PI for two foundation-funded initiatives to develop system-based approaches to prevent, detect, and treat delirium in hospitalized patients. He also serves as co-investigator in Dr. Greenspan's research in geriatric osteoporosis, including her R01-funded studies in the nursing home and a PCORI-funded study of falls. Finally, he co-directs the Research and Career Development Core of the NIH-funded Pittsburgh Older American Independence Center.

Eric G. Rodriguez MD MPH
Dr. Rodriguez is an Associate Professor. His research focuses on Alzheimer's Disease in older adults, and he continues to serve as co-investigator on grants related to this condition.

Fred Rubin MD
A Professor of Medicine, Dr. Rubin’s research has focused on evaluating the adaptability and sustainability of Dr. Sharon Inouye’s Hospital Elder Life Program (HELP). He has shown that it is as effective at preventing delirium at UPMC Shadyside, a large community-based hospital, as it was in the academic setting in which it was first developed and tested (Rubin FH et al. J Amer Geriatr Soc, 2011). By demonstrating both its efficacy and cost-savings, he has also convinced hospital management to incorporate the program into its annual budget.
Stasa Tadic MD MS
An Associate Professor, Dr. Tadic has remained involved in the study of geriatric urinary incontinence. Formerly supported by an NIA K23 Career Development Award, he is a member of the Geriatric Continence Research team (Drs. Resnick, Griffiths, and Clarkson). Although now more focused in the clinical arena, he continues to play a role in the group’s efforts.

Shachi Tyagi MD MS
An Assistant Professor, Dr. Tyagi is supported by an NIH-R03 and, as a Pepper KL2 Scholar, is funded by the Geriatric Division’s NIA Pepper Grant. Her research interests include geriatric nocturia and insomnia: their causes, treatment, and impact, both on each other and on the risk of falls.

Debra Weiner MD
A Professor, Dr. Weiner’s research focuses on chronic pain. She is PI of 2 VA Merit Review studies: a multisite pilot study designed to improve management of low back pain in older adults and a multisite prospective cohort study to ascertain predictors of outcome in veterans undergoing decompressive laminectomy for lumbar spinal stenosis. She is also PI of a recently awarded GRECC-funded pilot study to develop an electronic patient questionnaire for older adults with chronic low back pain (CLBP). The questionnaire will screen and educate patients about important CLBP contributors. This pilot study and the results of the pilot merit review will position her to apply for a large multisite trial. She also collaborates on NIH-funded studies of evaluation of the contribution of hip osteoarthritis to pain and function in older adults with low back pain (with Gregory Hicks, University of Delaware), and pain education of pre-professional students; she is co-Director of the University of Pittsburgh’s NIDA-funded Center of Excellence in Pain Education.

Rollin Wright MD MA MPH
An Assistant Professor, Dr. Wright’s academic interests as a clinician educator include curriculum development and evaluation in geriatric medicine, education research, advanced dementia, interprofessional education, terminal decline, and skilled and long-term care.
Faculty Research and Other Scholarly Activities

Becky Clarkson PhD
- Member Institute for Physics and Engineering in Medicine (IPEM, UK), 2004-present

Daniel Forman MD
- VA Pittsburgh Healthcare System Outstanding Contribution to Science Award (Medical), 2016
- Chair Elect, Council on Clinical Cardiology, Older Populations Committee, American Heart Association, 2016
- Inaugural Chair, Geriatric Cardiology Section, American College of Cardiology, 2014-present
- Chair, Advocacy Workgroup, Geriatric Cardiology Section, American College of Cardiology, 2014-present
- Chair, International Workgroup, Geriatric Cardiology Section, American College of Cardiology, 2014-present
- Advisory Board Member, Cardio Respiratory Fitness Registry, Council on Clinical Cardiology, 2013-present
- Section Editor, "Cardiovascular Disease in the Elderly" Current Geriatrics Reports, 2014-present
- Associate Editor-in-Chief, Journal of Geriatric Cardiology, 2015-present
- Guest Editor, Geriatric Cardiology, Canadian Journal of Cardiology, 2015

Amelia Gennari MD
- Pittsburgh Magazine, "Best Doctors", 2016
- Updates in Internal Medicine Speaker, “Driving in the Elderly”, 2016

Susan Greenspan MD
- NIH/NIA Board of Scientific Counselors (BSC), 2011-2015
- NIH/NIA Clinical Trials Advisory Program (CTAP), 2014-present
- Editorial Board, Journal of Gerontology: Medical Sciences, 1999-present
- Editorial Board, National Osteoporosis Foundation, 2004-present
- Board of Trustees, National Osteoporosis Foundation, 2010-present
- Vice President, National Osteoporosis Foundation, 2016-present
- Chair, Education Committee, National Osteoporosis Foundation, 2013-2016
- Chair, International Society of Osteoporosis Annual Meeting, 2013-present
- Associate Director for Research, University of Pittsburgh Aging Institute, 2013-present
- “Best Doctors in America,” Best Doctors, Inc., 2016
- Pittsburgh Magazine, Best Doctors in Pittsburgh, 2016

Steven Handler, MD PhD CMD
- Enhanced Care and Coordination Provider (ECCP), Medical Director Council, Center for Medicare and Medicaid Services’ (CMS) Innovation Center, 2013-present
- Long-Term Care Research Network Steering Committee, American Medical Directors Association (AMDA), 2006-present
• Health Information Technology (HIT) Subcommittee, American Medical Directors Association (AMDA), 2008-present
• Member, Executive Committee for Quality Prescribing Campaign, AMDA/Society for Post-Acute and Long-Term Care, 2015-present
• Taskforce on Quality Improvement in Nursing Home Regulation and Oversight, PA Dept of Health, 2015-present
• Peer Reviewer, Agency for Healthcare Research and Quality, 2015-present
• Taskforce on eHealth and Health IT, PA Medical Society, 2016

Joseph Hanlon PharmD MS
• Editorial Board, Journal of Gerontology: Medical Sciences, 2014-present
• Editorial Board, Drugs and Aging, 2014-present
• Editorial Board, Dementia Panel, Annals of Pharmacotherapy, 2003-present
• "Beers List" Updating Panel, American Geriatrics Society, 2011-present
• NIA K07 Leadership Award, University of Pittsburgh's Program for Pharmaceutical Outcomes Research in Aging, 2009-present
• Reviewer, Health Services Research Scientific Merit Review Board, Department of Veteran Affairs, 2013-present
• Geriatric Advisory Panel, “Modifying the Impact of ICU-Induced Neurological Dysfunction-USA Study” (MIND-USA), Vanderbilt University, 2009-present
• Co-Chair, NIA U13 Polypharmacy in Older Adults with Cardiovascular Disease Conference, Washington, DC, 2014-present
• Technical Advisory Committee, PACE Program, Harrisburgh, PA, 2012-present
• Consultant, VA-funded Patient Safety Center of Inquiry: Safeguarding Ambulatory Care For Veterans With Chronic Kidney Disease, 2016-present
• Consultant, NIA-funded “Addressing Behavior and Mood in Assisted Living: Organizational Characteristics Related to the Use of Antipsychotic and Psychotropic Medications and Alternative Practices”, University of North Carolina-Chapel Hill, 2016-present

Shuja Hassan MD
• Pittsburgh Magazine, the “Best Doctors”, 2016

David Nace MD MPH
• Board Secretary, AMDA, The Society for Post-Acute and Long-Term Care Medicine, 2016-present
• Member, Hepatitis B Work Group, Advisory Committee on Immunization Practices (ACIP), 2010-present
• Member, National Influenza Vaccine Summit/National Adult Immunization Summit, 2007-present
• Chair, AMDA, The Society for Post-Acute and Long-Term Care Medicine (AMDA) Infections Advisory Committee, 2013-present
• Vice Chair, AMDA Public Policy Committee, 2015-present
• PA Patient Safety Authority Healthcare Associated Infections LTC Advisory Panel, 2013-present
• Chair, Pennsylvania Dementia Care Partnership, 2012-present
• POLST Champion, PA POLST Coalition, 2010-present
• Chair, PMDA Public Policy Committee, 1997-present
• “Best Doctors in America,” Best Doctors, Inc., 2009-present
• *Pittsburgh Magazine*, Best Doctors in Pittsburgh

Neelesh Nadkarni MD PhD FRCPC
• American Geriatrics Society New Investigator Award, 2016

Anne Newman MD MPH
• NIA, National Advisory Council on Aging (NACA), 2014-present
• Associate Editor, *Journal of Gerontology*, 2006-present
• Editorial Board, *Journal of Aging and Health*, 2010-present
• External Advisory Committee, KURE (Korean Urban Rural Elderly) Study, 2012-present
• Scientific Advisory Board, The Irish Longitudinal Study of Aging (TILDA), 2009-present
• Advisory Board, NIH/NIA Baltimore Longitudinal Study of Aging (BLSA), 2005-present
• NIH/NHLBI DSMB, Hispanic Community Health Study, Study of Latinos (HCHS-SOL), 2007-2015
• External Advisory Committee, ALLHAT (Antihypertensive and Lipid-Lowering Treatment to Prevent Heart Attack Trial), 2011-present
• Director, Epidemiological Basis of Disease Control, 2015-present

Elizabeth O’Keefe MD
• *Pittsburgh Magazine*, “Best Doctors”, 2016
• Panelist, Fall Voice Conference, 2015

David Pasquale DO
• *Pittsburgh Magazine*, “Best Doctors”, 2016

Subashan Perera PhD
• Ad Hoc Member, Veterans Affairs Health Services Research & Development Post-Acute and Long-Term Care Scientific Merit Review Board, Aug. 2015, March 2016

Neil M. Resnick MD
• Grand Champion, 8th Annual “Celebrating Senior Champions,” UPMC, University of Pittsburgh, 2016
• Editorial Board, *Current Geriatrics Reports* (Springer), 2014-present
• Advisor, CMS/Medicare Innovation Advisors Program, 2014-present
• Keynote Talk, AUA 110th Annual Scientific Meeting: “The brain’s role in continence”, 2015-2016
• Keynote Talk, NIH Bench to Bedside U13 Research Conference Series, “Geriatric Incontinence--Where do we stand? Where should we go?”, 2015-2016
• Invited Participant, National Summit on Healthcare Payment Reform, 2015-2016
• American Geriatrics Society, Pennsylvania Representative, Council of State Affiliates, 2003-present
• Board of Directors, American Geriatrics Society, Pennsylvania Chapter 2000-present
• Board of Directors, Pittsburgh Regional Health Initiative (PRHI), 2012-present

http://www.dom.pitt.edu/geri
• Board of Directors, Jewish Healthcare Foundation, 2012-present
• “Top Doctors in America,” Castle Connolly's Guide to America’s Top Physicians, 2000-2016

Eric Rodriguez MD MPH
• “Best Doctors in America,” Best Doctors, Inc., 2014-2016
• Rater for McMaster Online Rating of Evidence, 2014-2016

Michelle Rossi MD MPH
• VA Undersecretary of Health, Promising Practice Consortium-Semifinalist “TeleDementia Clinic”, 2016
• Gold Excellence in Government Award (Federal Executive Board) Outstanding Professional Employee – Medical/Scientific Category, 2016

Fred Rubin MD
• Allegheny County Medical Society Richard E. Deitrick Humanity in Medicine Award, 2016
• President, Pennsylvania Geriatrics Society, Western Division, 2010-2018
• “Best Doctors in America,” Best Doctors, Inc., 2016
• Pittsburgh Magazine, Best Doctors in Pittsburgh, 2016

Stasa Tadic MD MS
• Academic Chief, Geriatric Medicine, UPMC Mercy, 2015

Adele Towers MD MPH FACP
• UPMC Presbyterian Campus Medical Staff, Dedication to Commitment and Quality Award, 2015

Debra Weiner MD
• Editorial Board, Pain Medicine, 2000-present
• Senior Editor, Pain Medicine, 2011-present
• Professional Advisory Board, American Chronic Pain Association, 2011-present
• Ad Hoc reviewer of NIH grant applications, 2013-present

Rollin Wright MD MA MPH
• Member, American Medical Directors Association Annual Program Planning Committee, 2014-present
• Project Director, HRSA Geriatric Workforce Enhancement Program Project 3 (Advanced Dementia Communication Competency), 2015-2018
• Mentor, one faculty master's student, four residents, one fellow, one faculty PhD candidate.
• Course director, Interprofessional Geriatrics Week, October 2015
<table>
<thead>
<tr>
<th>PUBLIC HEALTH SERVICE</th>
<th>RESEARCH DESCRIPTION</th>
<th>GRANTOR</th>
<th>DIRECT COSTS</th>
<th>INDIRECT COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>GREENSPAN, SUSAN</td>
<td>OBESITY AND BODY SEGMENT PARAMETERS IN WORKING ADULTS</td>
<td>NIOSH</td>
<td>$69,046</td>
<td>$37,285</td>
</tr>
<tr>
<td>GREENSPAN, SUSAN</td>
<td>VITAMIN D AND VASCULAR FUNCTION IN OBESE CHILDREN</td>
<td>NHLBI</td>
<td>$11,255</td>
<td>$6,078</td>
</tr>
<tr>
<td>GREENSPAN, SUSAN</td>
<td>RANDOMIZED TRIAL OF A MULTIFACTORIAL FALL INJURY PREVENTION STRATEGY</td>
<td>BRIGHAM AND WOMEN’S HOSPITAL, INC./ NIA</td>
<td>$174,400</td>
<td>$43,600</td>
</tr>
<tr>
<td>GREENSPAN, SUSAN</td>
<td>PITT CLINICAL RESEARCH TRAINING PROGRAM IN GERIATRICS AND GERONTOLOGY</td>
<td>NIA</td>
<td>$428,304</td>
<td>$28,247</td>
</tr>
<tr>
<td>GREENSPAN, SUSAN</td>
<td>PITTSBURGH OLDER AMERICANS INDEPENDENCE CENTER</td>
<td>NIA</td>
<td>$327,040</td>
<td>$101,897</td>
</tr>
<tr>
<td>GREENSPAN, SUSAN</td>
<td>AUTOIMMUNITY AND EMPHYSEMA AND RISK OF OSTEOPOROSIS IN SMOKERS</td>
<td>NHLBI</td>
<td>$5,880</td>
<td>$3,175</td>
</tr>
<tr>
<td>GREENSPAN, SUSAN</td>
<td>ACTIVATING PATIENTS TO REDUCE OSTEOPOROSIS (APROPOS)</td>
<td>UNIVERSITY OF ALABAMA AT BIRMINGHAM/ NIAMS</td>
<td>$10,840</td>
<td>$5,853</td>
</tr>
<tr>
<td>GREENSPAN, SUSAN</td>
<td>ADVANCING GERIATRICS INFRASTRUCTURE AND NETWORK GROWTH (AGING)</td>
<td>UNIVERSITY OF MASSACHUSETTS/NIA</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>GREENSPAN, SUSAN</td>
<td>MAINTENANCE OF SKELETAL INTEGRITY IN FRAIL ELDERS - PHASE 2</td>
<td>NIA</td>
<td>$406,128</td>
<td>$219,309</td>
</tr>
<tr>
<td>GREENSPAN, SUSAN</td>
<td>SUSTAINING SKELETAL HEALTH IN FRAIL ELDERLY</td>
<td>NIA</td>
<td>$124,848</td>
<td>$64,448</td>
</tr>
<tr>
<td>GREENSPAN, SUSAN</td>
<td>DISSEMINATION OF A DIABETES PREVENTION PROGRAM AMONG MEDICARE ELIGIBLE RETIREES</td>
<td>NIH</td>
<td>$11,255</td>
<td>$5,796</td>
</tr>
<tr>
<td>HANDLER, STEVEN M.</td>
<td>POST-HOSPITAL DISCHARGE ADVERSE EVENTS IN THE NURSING SETTING</td>
<td>UNIVERSITY OF MASSACHUSETTS/ AHRQ</td>
<td>$12,280</td>
<td>$6,631</td>
</tr>
<tr>
<td>HANDLER, STEVEN M.</td>
<td>TRANSFORMING THE MEDICATION REGIMEN REVIEW PROCESS OF HIGH-RISK DRUGS USING A PATIENT-CENTERED TELEMEDICINE-BASED APPROACH TO PREVENT ADVERSE DRUG EVENTS IN THE NURSING HOME</td>
<td>AGENCY FOR HEALTHCARE RESEARCH AND QUALITY</td>
<td>$48,516</td>
<td>$26,200</td>
</tr>
<tr>
<td>HANLON, JOSEPH T.</td>
<td>RESILIENCE TO MOBILITY IMPAIRMENT: NEURAL CORRELATES AND PROTECTIVE FACTORS</td>
<td>NIA</td>
<td>$6,196</td>
<td>$3,191</td>
</tr>
<tr>
<td>Name</td>
<td>Project Description</td>
<td>Funding Agency</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------</td>
<td>--------------</td>
<td>----------------</td>
</tr>
<tr>
<td>HANLON, JOSEPH T.</td>
<td>Pittsburg Older Americans Independence Center PESC</td>
<td>NIA</td>
<td>$95,432</td>
<td>$51,533</td>
</tr>
<tr>
<td>NACE, DAVID</td>
<td>Geriatric Education Centers of Pennsylvania</td>
<td>Health Research and Services Administration</td>
<td>$5,076</td>
<td>$406</td>
</tr>
<tr>
<td>NACE, DAVID</td>
<td>Pittsburg Older Americans Independence Center RC1</td>
<td>NIA</td>
<td>$86,364</td>
<td>$46,637</td>
</tr>
<tr>
<td>NACE, DAVID</td>
<td>Improving Outcomes of UTI in LTC Facilities: The IOU Study</td>
<td>Agency for Healthcare Research and Quality</td>
<td>$376,319</td>
<td>$162,948</td>
</tr>
<tr>
<td>NACE, DAVID</td>
<td>Building a Novel Antiobiotic Stewardship Intervention for Nursing Homes</td>
<td>University of Wisconsin/ AHRQ</td>
<td>$38,598</td>
<td>$20,843</td>
</tr>
<tr>
<td>NADKARNI, NEELESH</td>
<td>The Longitudinal Relationship Between Brain Amyloid Accrual and Decline in the Cognition-Mobility Interface in Clinically Normal Older Adults</td>
<td>NIA</td>
<td>$18,750</td>
<td>$10,125</td>
</tr>
<tr>
<td>NADKARNI, NEELESH</td>
<td>The Life Outcomes Study (LIFE-OS)</td>
<td>University of Florida/ NIA</td>
<td>$3,141</td>
<td>$1,618</td>
</tr>
<tr>
<td>NADKARNI, NEELESH</td>
<td>The Aging Brain and the Cognition-Mobility Interface in Clinically Normal Older Adults</td>
<td>NIA</td>
<td>$142,400</td>
<td>$11,352</td>
</tr>
<tr>
<td>PERERA, KPG SUBASHAN</td>
<td>Task Specific Timing and Coordination Exercises to Improve Mobility in Older Adults</td>
<td>NIA</td>
<td>$19,308</td>
<td>$10,426</td>
</tr>
<tr>
<td>PERERA, KPG SUBASHAN</td>
<td>Improving Medication Safety for Nursing Home Residents Prescribed Psychotropic Drugs</td>
<td>NIA</td>
<td>$12,046</td>
<td>$964</td>
</tr>
<tr>
<td>PERERA, KPG SUBASHAN</td>
<td>Cell Autonomous and Non-Autonomous Mechanisms of Aging - Core A</td>
<td>Scripps Research Institute/ NIA</td>
<td>$8,710</td>
<td>$4,703</td>
</tr>
<tr>
<td>PERERA, KPG SUBASHAN</td>
<td>Biomarkers Predictive of Lung Function in Decline in Physiologically Normal Smokers</td>
<td>NHLBI</td>
<td>$12,339</td>
<td>$6,663</td>
</tr>
<tr>
<td>PERERA, KPG SUBASHAN</td>
<td>Postural Control in the Elderly: The Role of Attention</td>
<td>NIA</td>
<td>$12,352</td>
<td>$6,362</td>
</tr>
<tr>
<td>Principal Investigator</td>
<td>Title of Project</td>
<td>Sponsor/Granting Agency</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>------------------------</td>
<td>------------------------------------------------------------</td>
<td>----------------------------------</td>
<td>---------------</td>
<td>----------------</td>
</tr>
<tr>
<td>PERERA, KPG SUBASHAN</td>
<td>MECHANISMS/TREATMENTS OF LOWER URINARY TRACT DYSFUNCTION AFTER SPINAL CORD INJURY - CORE B</td>
<td>NIDDK</td>
<td>$8,769</td>
<td>$4,735</td>
</tr>
<tr>
<td>PERERA, KPG SUBASHAN</td>
<td>PITTSBURGH OLDER AMERICANS INDEPENDENCE CENTER DMAC</td>
<td>NIA</td>
<td>$86,502</td>
<td>$46,711</td>
</tr>
<tr>
<td>RESNICK, NEIL M.</td>
<td>FURTHER ENHANCING NON-PHARMACOLOGICAL THERAPY FOR INCONTINENCE</td>
<td>NIA</td>
<td>$244,864</td>
<td>$109,006</td>
</tr>
<tr>
<td>RODRIGUEZ, ERIC G.</td>
<td>ALZHEIMER'S DISEASE RESEARCH CENTER-CORE B</td>
<td>NIA</td>
<td>$14,993</td>
<td>$8,096</td>
</tr>
<tr>
<td>TYAGI, SHACHI</td>
<td>IMPACT OF SLEEP ON CHRONOBIOLOGY OF MIKTURITION</td>
<td>NIA</td>
<td>$46,209</td>
<td>$24,953</td>
</tr>
<tr>
<td>WEINER, DEBRA K</td>
<td>CHRONIC LOW BACK PAIN IN OLDER ADULTS: THE ROLE OF CO-EXISTING HIP IMPAIRMENTS</td>
<td>UNIVERSITY OF DELAWARE / NIA</td>
<td>$13,980</td>
<td>$7,200</td>
</tr>
<tr>
<td>WRIGHT, ROLLIN</td>
<td>GERIATRICS WORKFORCE ENHANCEMENT PROGRAM</td>
<td>HRSA</td>
<td>$60,540</td>
<td>$4,843</td>
</tr>
<tr>
<td></td>
<td>TOTAL PUBLIC HEALTH SERVICE</td>
<td></td>
<td>$2,955,133</td>
<td>$1,098,559</td>
</tr>
</tbody>
</table>

**SOCIETY AND FOUNDATIONS**

<table>
<thead>
<tr>
<th>Principal Investigator</th>
<th>Title of Project</th>
<th>Sponsor/Granting Agency</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>FORMAN, DANIEL</td>
<td>COMPARATIVE EFFECTIVENESS OF HOME VS. CENTER-BASED CARDIAC REHABILITATION</td>
<td>UNIVERSITY OF CALIFORNIA - SAN FRANCISCO/ PCORI</td>
<td>$58,674</td>
<td>$14,669</td>
</tr>
<tr>
<td>FORMAN, DANIEL</td>
<td>STUDY OF THE UTILITY OF ORAL NITRATE THERAPY TO IMPROVE SKELETAL MUSCLE BIOENERGETICS AND PHYSICAL CAPACITY IN OLDER HEART FAILURE PATIENTS</td>
<td>AGING INSTITUTE OF UPMC</td>
<td>$37,500</td>
<td>$0</td>
</tr>
<tr>
<td>GREENSPAN, SUSAN</td>
<td>INTEGRATING PATIENT-CENTERED EXERCISE COACHING INTO PRIMARY CARE TO REDUCE FRAGILITY FRACTURE</td>
<td>PENN STATE/ PCORI</td>
<td>$25,080</td>
<td>$10,032</td>
</tr>
<tr>
<td>HANLON, JOSEPH T.</td>
<td>CUMULATIVE CNS MEDICATION DOSAGE AND SERIOUS FALL INJURIES</td>
<td>THE DONAGHUE FOUNDATION</td>
<td>$48,399</td>
<td>$4,840</td>
</tr>
</tbody>
</table>
### DIRECT COSTS

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Funding Body</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNDERSTANDING PATIENT-SPECIFIC DEFICITS CAUSING STEP ASYMMETRY POST-STROKE: A STEP TOWARDS PERSONALIZING GAIT REHABILITATION</td>
<td>AMERICAN HEART ASSOCIATION</td>
<td>$3,731</td>
<td>$373</td>
</tr>
<tr>
<td><strong>ON THE MOVE: OPTIMIZING PARTICIPATION IN GROUP EXERCISE TO PREVENT WALKING DIFFICULTY IN AT-RISK OLDER ADULTS</strong></td>
<td>PATIENT-CENTERED OUTCOMES RESEARCH INSTITUTE</td>
<td>$92,466</td>
<td>$36,988</td>
</tr>
<tr>
<td>A STRATEGIC RETREAT TO SUPPORT THE GERIATRICS DIVISION AT THE UNIVERSITY OF PITTSBURGH</td>
<td>AMERICAN FEDERATION FOR AGING RESEARCH/JHART</td>
<td>$10,000</td>
<td>$0</td>
</tr>
<tr>
<td>TO DEVELOP A SYSTEMS-BASED APPROACH TO DELIRIUM (DELIRIUM PROJECT)</td>
<td>PITTSBURGH FOUNDATION</td>
<td>$22,000</td>
<td>$0</td>
</tr>
<tr>
<td>JOHN A. HARTFORD CENTER OF EXCELLENCE</td>
<td>AMERICAN FED. FOR AGING RESEARCH</td>
<td>$93,000</td>
<td>$0</td>
</tr>
<tr>
<td><strong>TOTAL SOCIETY AND FOUNDATIONS</strong></td>
<td></td>
<td><strong>$390,850</strong></td>
<td><strong>$66,902</strong></td>
</tr>
</tbody>
</table>

### INDIRECT COSTS

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Funding Body</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>TERIPARATIDE AND RISEDRONATE IN THE TREATMENT OF PATIENTS WITH SEVERE POSTMENOPAUSAL OSTEOPOROSIS: COMPARATIVE EFFECTS ON VERTEBRAL FRACTURES</td>
<td>LILLY USA, LLC.</td>
<td>$19,056</td>
<td>$4,048</td>
</tr>
<tr>
<td><strong>TOTAL INDUSTRY</strong></td>
<td></td>
<td><strong>$19,056</strong></td>
<td><strong>$4,048</strong></td>
</tr>
</tbody>
</table>

**TOTAL** $3,365,039 **$1,169,509**
TEACHING ACTIVITIES

In addition to the research training described above, Division faculty members teach trainees at every level, from high-school student to practicing physician. We also teach advance practice providers and trainees in pharmacy, nursing, psychology, chaplaincy, physical/occupational therapy, and social work.

Medical Students

Drs. Metrovich and Resnick lead a novel Geriatrics Area of Concentration which spans all four years and awards a Certificate in Geriatrics to several students annually (nine in FY16). We also sponsor scholarly projects for three to seven students/year. Finally, led by Dr. Rollin Wright, we teach an innovative and required week-long geriatrics course, which offers an interdisciplinary curriculum for 200 medical, nursing, pharmacy, and therapy students. Evaluation shows that the exposure has improved their knowledge, attitudes, and beliefs about geriatric medicine and team-based practices.

Medical Residents

We teach a month-long geriatrics experience in the clinic, home, hospital, and nursing home settings for all UPMC Presbyterian and Mercy residents in internal medicine. In addition, led by Dr. Rollin Wright, we offer an innovative and unique Geriatrics Track which allows five to nine residents from Presbyterian and Shadyside to “major” in geriatrics; five were enrolled in FY16. Dr. Wright has also created four advanced geriatrics rotations, which are available to both Track and non-Track residents and attracted five additional participants. Several of Dr. Wright’s innovations have been featured at national AGS meetings, including her “Roadmap,” milestones, and pharmacology QI projects and, more recently, a new curriculum to teach residents how to communicate and work with patients and families living with dementia.

Geriatric Medicine Fellowship

In FY16, we trained four fellows and recruited four new ones for FY17, one of whom is participating in our new three-year geriatric academic track and who won an award for her research abstract at the 2016 GME Leadership Conference. We also developed a new integrated fellowship in geriatric palliative care, which will match in FY17, and we are exploring other joint fellowships as well.

Advanced Practice Provider Students

Under the leadership of Gwyn Gilliland CRNP, we train both Physician Assistant and CRNP students in acute care geriatrics. Comprising four-week blocks, the rotation is highly rated, is requested by most PA students, and is growing in popularity with CRNP students.

High School Students (University of Pittsburgh Health Scholars Academy)

The Division supports this highly competitive summer program on aging for 30 elite high school students who are selected each year from throughout Pennsylvania.

Continuing Medical Education (CME)

Recognized by a national award from AGS, this year our annual CME course attracted nearly 450 attendees from 22 states and three other countries. The program includes the national HELP course on delirium, which was transferred from Harvard to Pitt and is annually co-taught by Dr. Sharon Inouye. Dr. Susan Greenspan continues to teach programs
on osteoporosis, which she helped to create for the American Academy of Family Medicine, ISCD, and the National Osteoporosis Foundation. Several faculty lead “Meet the Professor” sessions at national meetings of ACP, AGS, etc.

**Other**

Our faculty author chapters on aging for major medical textbooks, including *Cecil’s* (Resnick; Greenspan), *UpToDate* (Weiner), and *DiPiro’s Pharmacotherapy: A Pathophysiologic Approach* (Hanlon). Dr. Joseph Hanlon serves on the expert panel that updates the AGS Beers criteria. Division faculty have also developed geriatric curricula for several surgical subspecialties, including ENT, urology, and gynecology.

**Teaching Honors and Awards**

**Amy Gennari MD**
- Education Committee Member, 2015-present
- Developing Curriculum for new Longitudinal Resident’s Clinic, 2016
- Instructor, Advanced Physical Diagnosis Course, 2015-present

**Susan Greenspan MD**
- Co-Founder and Core Faculty, “Better Bones,” a program created with the American Academy of Family Practice (AAFP) to help FPs & APPs update their knowledge and treatment of osteoporosis, 2003-present
- Co-Founder and Core Faculty, International Society of Clinical Densitometry (ISCD) Certification Program, 1997-present
- Core Faculty, National Osteoporosis Foundation (in association with ISO) annual meeting to update practicing physicians and other health care professionals in the management of osteoporosis, 2010-present
- Core Faculty, University of Pittsburgh Division of Endocrinology “DXA 101”, a program to teach and certify endocrine fellows how to read DXA exams, 2007-present
- Director, T32 training grant that supports predoctoral, postdoctoral, and medical student trainees, 2014-present
- Mentor, to three University of Pittsburgh medical students for their scholarly projects, 2015-present

**Joseph Hanlon PharmD MS**
- Instructor, Aging Epidemiology Medication Ascertainment, and Medication Errors, GSPG, 2010-present
- Instructor, Interprofessional Geriatrics (Macy), Pharmacogeriatrics, 2012-present
- Instructor, Geriatric Pharmacology and Geriatric Pharmacotherapy, School of Medicine, 2010-present

**Shuja Hassan MD**
- Co-Director, “Clinical Update in Geriatric Medicine” CME Course, coordinated by the American Geriatrics Society (Pennsylvania Chapter) and the University of Pittsburgh, 2009-present
- Instructor, Advanced Physical Diagnosis Course, 2015-present
- Associate Director, Geriatrics Rotation, UPMC Shadyside, 2004-present

**Anne Newman MD**
- Co-Director, Advanced Course in the Epidemiology of Aging, 1991-present
- Director, Biology and Physiology of Aging, 1997-present
- Instructor, Epidemiology of Aging Methods, 2006-present
- Director, Epidemiological Basis of Disease Control, 2015-present
Elizabeth O'Keefe MD
- Co-Developer of Geriatric Survivor teaching module, Geriatrics (Macy) Course, 2011-present
- Coordinator Ambulatory Care (CAMC) Clerkship Geriatrics Workshop, 2015
- Member of Education Committee, 2014-present
- Coordinator LTC session at Charles Morris, Geriatrics (Macy) Course, 2011-present
- Mentor fellows for conference presentations, 2015-2016

Michelle Rossi MD MPH
- Director, Geriatrics Rotation for Internal Medicine residents, UPMC Presbyterian/MUH, 2009-present
- Director, Elective in Geriatric Medicine, University of Pittsburgh School of Medicine, 1998-present
- Director, GRECC rotation for Geriatric Psychiatry fellows, 2009-present
- Co-Developer, Geriatric Survivor teaching modules for Geriatric Medicine course 3rd-year medical school, 2011-present
- Faculty and planning committee, VA Webinar series for homecare nurses and other home-based primary care team members, 2012-present

Neil M. Resnick MD
- Director, Geriatrics Fellowship, University of Pittsburgh and UPMC, 2013-present
- Director, Geriatrics Area of Concentration (AoC), University of Pittsburgh Medical School, 2014-present
- Co-Director, “Clinical Update in Geriatric Medicine” CME Course, coordinated by the American Geriatrics Society (Pennsylvania Chapter) and the University of Pittsburgh, 2000-present
- Developer, Syndromes module, University of Pittsburgh Medical School’s Geriatrics Course, 2007-present
- Leader, small groups sessions, University of Pittsburgh Medical School’s Geriatrics Course, 2007-present
- Lecturer, Governor’s School (University of Pittsburgh Health Scholars Academy), 2000-present

Fred Rubin MD
- Planning Committee, “Update in Geriatric Medicine” CME course, University of Pittsburgh, 1988-present
- Program Director, Medicine Grand Rounds, UPMC Shadyside, 1992-present
- Program Co-Director, 14th annual Internal Conference on the Hospital Elder Life Program (HELP), 2016
- Professor Rounds for 3rd-year medical students at UPMC Shadyside, 1999-present
- Planning Committee, Update in Internal Medicine, 1999-present

Karen Scandrett MD MPH
- Associate Program Director, Geriatric Fellowship, 2014-2016
- Program Director, Geriatric Fellowship, 2016-present
- Co-Director, Integrated Training Program in Geriatric and Palliative Medicine, 2016
- Faculty Preceptor, Inter-Professional Geriatric Medicine Course: Advance Care Planning, Health Assessment Fairs, 2015

Stasa Tadic MD MS
- UPMC Mercy Residents’ Noon Conferences, “Delirium in Hospitalized Elderly”, April 2015
- Director, Geriatric Grand Rounds Seminar Series, UPMC Mercy, 2015-present
- Director, Geriatric Noon Conference Case Series, UPMC Mercy, 2015-present

Adrian Visoiu MD
- Instructor, Advanced Physical Diagnosis Course, 2015-present
Debra Weiner MD
- VAPHS GRECC Clinical and Education Activities Planning Committee, 2013-present
- Education Committee, Geriatric Medicine Division, 2012-present
- Co-Director of Center of Excellence in Pain Education, participated in developing learning modules and facilitating course implementation, 2015-present
- Career development mentor for Elizabeth DiNapoli, MIRECC post-doc, 2016
- Scholarly project mentor for Zachary Jacobs, internal medicine resident at UPMC, 2016
- Research mentor for medical students Jonathan Cohen and Evan Madill, 2016

Rollin Wright MD MA MPH
- Director, Geriatrics Track Residency in Internal Medicine, 2008-present
- Geriatrics Subspecialty Education Coordinator (SEC), 2013-present
- Associate Director, Geriatrics Rotation, UPMC Presbyterian Internal Medicine Residents, 2012-present
- Curriculum Developer and Director, Advanced Geriatrics Rotations, 2011-present
- Mentor (one faculty master’s student, four track residents, one categorical medicine resident, two fellows, one faculty PhD candidate), 2016
- Coordinator, Geriatrics Area of Concentration Noon Case Series, 2008-present
- Preceptor, Advanced Medical Interviewing, 2006-present
- Curriculum co-developer, Interprofessional Geriatrics (Macy) Course, 2010-present
- Course director, IP Geriatrics course, 2015-present
- Curriculum developer, LTC and Teaching to Teach electives for fellows, 2011-present
- Clinical preceptor, LTC setting two, 8-hour days per week, 2008-present
- Clinical preceptor (residents and students), inpatient geriatrics service, four to five weeks per year, 2005-present
- Clinical preceptor, geriatric fellows’ continuity outpatient clinic and long-term care, 2013-14, 2015-present
- Lecturer, Natural History of the Patient course, 2012-2015
- Lecturer, Integrated Lectures series for fellows, three to four standard required lectures, 2012-present
- Coordinator/Presenter, 2 ½-day symposia on dementia care, AMDA Annual Meeting, 2015
- Member, AMDA-PALTC Annual Conference Planning Committee, 2014-present
- Presenter, Western PA Geriatrics Society Update, 2013-present
- Chair, Pennsylvania Geriatrics Society-Western Division Awards Committee 2015-present
- Education research (curriculum development): Geriatric Workforce Enhancement Program project “Advancing Dementia-Care Competency and Preparedness Across Disciplines in Multiple Care Settings”, curricula for medical students (yearly), medical residents (twice per rotation), and geriatric fellows (monthly x one year), 2015-2016
- Geriatrics faculty development series, three talks/year 2010-current
- Division of Geriatric Medicine Education Committee Chair, 2015-present
**Fellowship Program**

<table>
<thead>
<tr>
<th>Current Fellow</th>
<th>Medical School</th>
<th>Residency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arabi Syeda</td>
<td>St. George's School of Medicine, Grenada</td>
<td>West Penn Allegheny Health Systems</td>
</tr>
<tr>
<td>Patel, Bhavinkumar</td>
<td>Pramukhswami Medical College, India</td>
<td>Easton Hospital, Easton, PA.</td>
</tr>
<tr>
<td>Patel, Palak</td>
<td>Oregon Health &amp; Science University School of Medicine</td>
<td>Dartmouth Hitchcock Medical Center, Lebanon, NH</td>
</tr>
<tr>
<td>Noguchi Ryoko</td>
<td>Gifu University School of Medicine, Japan</td>
<td>UPMC Shadyside Family Medicine</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Departing Fellow</th>
<th>Current Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arabi Syeda</td>
<td>Travel and Family Management</td>
</tr>
<tr>
<td>Patel, Bhavinkumar</td>
<td>Carolina Healthcare System Hospital Senior Care department- Staff/Attending physician</td>
</tr>
<tr>
<td>Patel, Palak</td>
<td>Sutter Coast Hospital in Crescent City, CA, and Chetco Medical Center In Brookings-Harbor, Oregon</td>
</tr>
<tr>
<td>Noguchi Ryoko</td>
<td>SSM Health Good Samaritan Hospital - Hospitalist</td>
</tr>
</tbody>
</table>

**Fellow Awards and Honors**

**Noguchi, R.** AMDA Foundation Futures Program Scholar, Travel Award, Society for Post-Acute/ Long-Term Care Medicine Annual Meeting, March 2016

**Patel, B.** AMDA Foundation Futures Program Scholar, Society for Post-Acute/ Long-Term Care Medicine Annual Meeting, March 2016

**Fellow Presentations**


**Arabi S, Pasquale D.** Poster Presentation "Rare Cause of Neck Pain in Elderly." American Geriatric Society Annual Scientific Meeting, Long Beach, CA, May 2016

**Noguchi R.** “Preventative Care in the Geriatric Population.” UPMC Family Medicine core lecture series. April 2016


CLINICAL CARE

Our faculty—15 of whom are included in America’s Top Docs and/or Best Doctors in America—focus on prevention and management of the complex medical and psychosocial problems that afflict older adults. Excluding our VA efforts, we are annually responsible for more than 16,000 ambulatory visits, nearly 1,000 hospital discharges, and nearly 17,000 long-term care visits at 13 different facilities. In addition to our clinical volume, which is large for an academic geriatric Division, our effort comprises several special features:

- **Vertically-Integrated Care, Across the Entire Health Care Spectrum**: This is provided by our service at each of our main UPMC bases: Presbyterian, Shadyside, and Magee Women’s Hospitals.
- **Patient Centered Medical Home**: Each of our primary ambulatory sites is NCQA-certified yet also specifically designed for geriatric patients (see: Gennari A et al. Cleveland Clin J Med 2012; 79: 359-66).
- **Group Visits**: Dr. Adele Towers leads one of the first such programs in an academic center.
- **Integrated Geriatric Subspecialty Care**: Consultative care is provided by fellowship-trained geriatricians, many with dual fellowship training i cardiology, chronic pain, gait and mobility, sarcopenia, falls, osteoporosis, physical therapy, sleep disorders, incontinence, rheumatology, depression, dementia, and palliative care. Bone densitometry is provided by a dually-trained geriatric endocrinologist (Dr. Greenspan).
- **Geriatric Pharmacists**: Our on-site geriatric pharmacists review medications, provide education, and counsel patients. This service is especially important for patients recently discharged from the hospital and for those being anticoagulated with warfarin. (cf: Gavini, Gennari, Ruby, Consult Phar 2015;30:153)
- **Emergency Care**: UPMC Magee now screens for delirium in every older patient in the Emergency Room.
- **Hospitalist and Consult Services**: At both Magee and Shadyside, we staff a geriatrics hospitalist service and a consult service. Metrics are excellent. For instance, at Magee, despite our short length of stay, our all-cause readmission rate was just 10%. For results of another one of our programs, see Sorbero JAGS 2012.
- **HELP Program**: Based on Dr. Inouye’s program and led by Drs. Rubin and Hassan, this service continues to prevent delirium and has saved >$7 million/year since 2008 at UPMC Shadyside (Rubin, JAGS 2011).
- **Readmission Prevention Program**: All of our patients are contacted within 48 hours of discharge home to review their progress, medications, unanticipated problems, and plans for medical follow-up. We also have a similar and relatively unique process for all of our patients following discharge from SNFs. The clinician groups also meet biweekly to review and discuss every one of our patients who was readmitted within 30 days.
- **Provision of Non-Reimbursable Services**: These include the readmission prevention service, an anticoagulation program for frail patients, Lifeline® even for those unable to pay, health screening clinics, 55 Alive (to assess driving safety), and respite care.
- **Program for All-Inclusive Care of the Elderly (PACE)**: Directed by one of our adjunct faculty (Jaffe) and working closely with the Division, this multisite program allows frail elderly to continue living at home.
- **Nursing Home (NH) and Assisted Living**: We care for hundreds of these residents, and provide training and medical leadership to more than a dozen facilities to improve care and reduce unnecessary admissions.
- **UPMC Presbyterian Geriatric Trauma Service**: Dr. Karen Scandrett initiated this service in January 2016 to meet the needs of >2000 older patients admitted annually to our Level 1 trauma hospital.
- **Fracture Liaison Service (UPMC Presby-Shadyside)**: Dr. Susan Greenspan created this program to ensure that, in addition to surgical repair, those with a fracture are evaluated and treated for osteoporosis (JBMR 2017).
CLINICAL QUALITY IMPROVEMENT INITIATIVES

Our initiatives focus on each relevant setting. This year we also monitored and achieved nearly 100% compliance on five metrics: immunization for influenza and pneumonia, control of blood pressure, detection and management of osteoporosis, and advance care planning. Function will be added next. Other highlights follow.

**Ambulatory Care**

*Patient-Centered Medical Home (PCMH), NCQA-Certified Level 3:* Over the past six years, under the leadership of Drs. Amelia Gennari and Adrian Visiou, we have adapted our Medical Homes to better meet the needs of geriatric patients. We guarantee ≤ 72-hour access for all new patients, link closely with our inpatient services, call in a few days and see our patients within a week of discharge home from the hospital or skilled nursing facility, and manage our high-risk patients in collaboration with the EDs, Home Health, and UPMC Health Plan. In FY16, we implemented a biweekly report to identify our high-risk patients. This allows us to better target resources for chronic care management, and to ensure that we have developed an individualized care plan in the context of their goals, life expectancy, and functional status. Such initiatives have resulted in top scores for preventive services, low readmission rates, and a 96% score on CG CAHPS for physician communication in FY16.

*Depression:* We strengthened our CRNP-led depression screening and management program, which is based on our geropsychiatrists’ PROSPECT study (JAMA, 2004). Each of our patients is screened with the PHQ-2, followed as needed by the PHQ-9. A positive score triggers a provider evaluation, treatment, and follow up according to an algorithm adapted by the Divisions of Geriatric Medicine and Geriatric Psychiatry. Patients are followed for 6-12 months at prescribed intervals by an interdisciplinary team, which monitors adherence and response and assists with problem-solving. After enrolling more than 60 patients, in FY16 we began utilizing this approach at all of our sites.

**Emergency Care**

In 2015, we and our colleagues in the Magee-Women’s Emergency Department became one of just two programs in the country selected to work with leaders from the American College of Emergency Physicians and the Society of Academic Emergency Physicians. The goal is to improve the care of older adults who present to the ED. Funded by
the Hartford Foundation, the project began with a “Geriatric Bootcamp,” followed by development of a quality improvement program to enhance detection and management of delirium in the ED. Repeated QI cycles have improved nurse-administered screening of all older adults from 33% to 65%, and the rate of physician confirmatory testing to 63%. A process to trigger referral for pharmacist review of medications has begun, as has programming of the tools into the electronic record. Followup of all patients with a positive score is underway to determine which patients can be safely discharged from the ED and what support is required. A standardized care plan for admitted patients is also being developed and educational tools for patients and family are being refined.

**Inpatient Care**

*Magee Acute Care and Transitions Program (ACT)*: Our program is based on two tenets: optimal geriatric care requires anticipating problems and preventing them, and improved systems can help to accomplish this. Led by Dr. Adrian Visoiu, in this—our sixth year—we identified new problems in medication reconciliation (Marcum et al. *J Am Geriatr Soc* 2015 [2 articles]), expanded and enhanced our Geriatric Consult Service, and worked with orthopedics to improve protocols for all fracture patients. We also sustained our previous advances, maintaining low ALOS, complication rates, and readmissions (10%). More gratifying, improvement in these metrics was sustained across the entire medical service.

*Delirium Pathway Project*: Led by Dr. Adrian Visoiu, Division faculty have been working with leaders in psychiatry, nursing, ED, and IT to design a Pathway to improve the approach to delirium in older patients. The goal is universal screening, prevention, and enhanced interprofessional management, from the ED to the wards. As described above, we integrated ED screening of all patients >65. Unexpected departures of key faculty and UPMC’s CMIO delayed further intervention, but prompted us to focus on nursing documentation. We postulate that such documentation can be substantially streamlined, thereby enabling enhanced screening and intervention—not only to address delirium but other problems as well. To test this, we initiated a new project with UPMC’s CNO (Lorenz) and CQO (Minnier). Early results are encouraging. At the same time, the successful HELP program continues at Shadyside on 11 wards.

*Supportive Services Program*: Developed in partnership with UPMC’s Health Plan and Palliative Care, early analyses proved that this program improved care and saved nearly $500,000/year. Based on its success at UPMC Presbyterian, Dr. Stasa Tadic launched a new base at UPMC Mercy in FY14 where, over the past two years, it also generated a demand for consults on patients not insured by the Health Plan. Both sites are staffed by a nurse who is backed up by faculty from geriatrics and palliative care. By identifying and consulting proactively on high-risk patients, our goal is to minimize complications, ensure a seamless post-discharge transition, and reduce readmissions.

*Fracture Liaison Service (FLS)*: With ongoing national pressure to decrease length of stay, most fracture patients are now discharged with neither assessment nor treatment of the underlying cause. With extramural funding, Dr. Susan Greenspan designed and implemented this novel service, which increased bone densitometry screening in such patients from 9% to 74% and, for UPMC Health Plan patients, achieved a 74% rating. Based on these impressive results, UPMC decided to fund the program itself. To date, nearly 200 patients have been enrolled.

**Home Care**

*Staying at Home/Living at Home* (Dr. Eric Rodriguez, Medical Director): This proactive, team-based preventive program collaborates with hundreds of PCPs to provide advanced care coordination for high-risk community-dwelling elderly with evidence of inadequate social support, cognitive and functional compromise, and avoidable health care utilization. Nurses and social workers make home visits to assist with managing medications, keeping medical appointments, arranging in-home and community services, and defining goals of care. Results have been excellent (Castle, Resnick. *J Applied Gerontol* 2014). SAH/LAH serves 975 patients, over half referred by UPMC’s Health Plan.
**Long-Term Care (LTC)**

*Reducing Unplanned Admissions:* Led by Drs. David Nace and Steven Handler, in collaboration with the Aging Institute and Senior Communities, we established a comprehensive program to reduce unplanned admissions from nursing facilities to the hospital. It focuses on four key phases: a) improved understanding of patients’ care goals, b) earlier detection of deterioration, c) improved communication among team members, and d) use of clinical care pathways. The program reduced unplanned admissions across UPMC-owned facilities by 45% (from 4.9/1000 patient days in Jan 2010 to 2.7 in June 2013, with subsequent plateau). Outcomes of this program were responsible for UPMC Community Provider Services receiving a $19 million CMS Innovation Award to reduce unplanned nursing facility admissions (RAVEN).

*Transitions Tool from LTC:* Transition planning after hospitalization is problematic, but it is far advanced compared with such planning from SNF to home. Thus, at UPMC Heritage, Dr. Namita Ahuja developed and implemented an innovative informational tool complemented by a comprehensive discharge packet. These are sent directly to each SNF patient’s PCP. Community PCPs report that this intervention has improved continuity of care during these transitions.

*Dementia Care Management Initiative:* The Division has led local and state initiatives to reduce unnecessary antipsychotic usage among nursing home residents. During our leadership of the Pennsylvania Dementia Care Partnership, usage declined 28.5% statewide over the past four years. In addition, by emphasizing an interprofessional behavioral approach, usage at Division-affiliated SNFs has declined as well. In fact, one of the most striking reductions in PA occurred this year at a UPMC facility, with usage dropping from 36% to 14%, a level below state and national levels.

*Antimicrobial Stewardship Initiatives:* Under Dr. David Nace’s leadership, the Division recently secured three AHRQ-funded LTC antimicrobial stewardship projects. Because nursing homes lack such programs, one project developed a novel toolkit; preliminary results show that it also cut costs. A second project will implement a nursing facility-tailored antimicrobial stewardship program that includes an “antibiotic time out”, a CDC-recommended best practice which has never been implemented or tested. The third aims to improve the approach to urinary tract infections (UTI) in nursing homes. Suspected UTI is the leading reason for antimicrobial use in nursing homes, but one- to two-thirds of antimicrobial use for UTI is unwarranted and contributes substantially to antimicrobial resistance. Because most such misuse is for uncomplicated cystitis, the team has developed the first evidence-based treatment guideline for SNFs and has just begun evaluating it, beginning with the first four of 40 nursing homes in NC, PA, TX and WI.

*Quality Assurance Performance Improvement (QAPI):* New CMS regulations require nursing homes to establish QAPI programs, which will also be tied to payments. The Division is leading this effort on behalf of UPMC Senior Communities. A formal organization structure has been developed and will oversee defined focus areas. Members include all stakeholders, from individual facilities to the Board of Directors. A systematic assessment of all currently available and proposed quality measures has been conducted. The group is now defining ways to enable timely data submission and automate the use of visual data including control charts.
## FACULTY

### Faculty in Core Divisions
**Fiscal Year 2014-2016**

<table>
<thead>
<tr>
<th>Division</th>
<th>FY 2003 (Base Year)</th>
<th>FY 2014</th>
<th>FY 2015</th>
<th>FY 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geriatric Medicine</td>
<td>24</td>
<td>28</td>
<td>27</td>
<td>28</td>
</tr>
</tbody>
</table>

*Note: Includes University of Pittsburgh full-time faculty and volunteer faculty who have a UPP appointment and excludes research associates, adjunct faculty and emeritus faculty.*

### Current Geriatric Medicine Faculty

#### Full-Time Faculty

<table>
<thead>
<tr>
<th>Faculty Name</th>
<th>Title</th>
<th>Degree(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bartels</td>
<td>Amelia Gennari</td>
<td>MD</td>
</tr>
<tr>
<td>Clarkson</td>
<td>Becky</td>
<td>D. PhD</td>
</tr>
<tr>
<td>Forman</td>
<td>Daniel</td>
<td>E. MD</td>
</tr>
<tr>
<td>Greenspan</td>
<td>Susan</td>
<td>L. MD</td>
</tr>
<tr>
<td>Handler</td>
<td>Steven</td>
<td>M. MD</td>
</tr>
<tr>
<td>Hanlon</td>
<td>Joseph</td>
<td>T. PharmD</td>
</tr>
<tr>
<td>Hassan</td>
<td>Shuja</td>
<td>MD</td>
</tr>
<tr>
<td>Nace</td>
<td>David</td>
<td>A. MD</td>
</tr>
<tr>
<td>Nadkarni</td>
<td>Neelsh</td>
<td>K. MD, PhD</td>
</tr>
<tr>
<td>O'Keefe</td>
<td>Elizabeth</td>
<td>A. MD</td>
</tr>
<tr>
<td>Perera</td>
<td>KPG Subashan</td>
<td>PhD</td>
</tr>
<tr>
<td>Rana</td>
<td>Sanjeeta</td>
<td>MD</td>
</tr>
<tr>
<td>Resnick</td>
<td>Neil</td>
<td>M. MD</td>
</tr>
<tr>
<td>Rodriguez</td>
<td>Eric</td>
<td>G. MD</td>
</tr>
<tr>
<td>Rossi</td>
<td>Michelle</td>
<td>I. MD</td>
</tr>
<tr>
<td>Scandrett</td>
<td>Karen</td>
<td>E. MD</td>
</tr>
<tr>
<td>Tadic</td>
<td>Stasa</td>
<td>D. MD</td>
</tr>
<tr>
<td>Towers</td>
<td>Adele</td>
<td>E. MD</td>
</tr>
<tr>
<td>Tyagi</td>
<td>Sachi</td>
<td>MD</td>
</tr>
<tr>
<td>Weiner</td>
<td>Debra</td>
<td>K. MD</td>
</tr>
<tr>
<td>Wright</td>
<td>Rollin</td>
<td>M. MD</td>
</tr>
</tbody>
</table>

#### Affiliated Faculty with UPP Appointments

<table>
<thead>
<tr>
<th>Faculty Name</th>
<th>Title</th>
<th>Degree(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ahuja</td>
<td>Namita</td>
<td>MD</td>
</tr>
<tr>
<td>Metrovich</td>
<td>Elizabeth</td>
<td>M. DO</td>
</tr>
<tr>
<td>Naumovski</td>
<td>John</td>
<td>MD</td>
</tr>
<tr>
<td>Pasquale</td>
<td>David</td>
<td>A. D.O.</td>
</tr>
<tr>
<td>Porter</td>
<td>Elizabeth</td>
<td>S. MD</td>
</tr>
<tr>
<td>Roberts</td>
<td>Sara</td>
<td>L. MD</td>
</tr>
<tr>
<td>Visoiu</td>
<td>Adrian</td>
<td>MD</td>
</tr>
</tbody>
</table>

*http://www.dom.pitt.edu/geri*
**Affiliated Faculty without UPP Appointments**

<table>
<thead>
<tr>
<th>Name</th>
<th>First Name</th>
<th>MI</th>
<th>Degree</th>
<th>Primary Title</th>
<th>Division</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coyle</td>
<td>Patricia</td>
<td>G.</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Fatigati</td>
<td>Mario</td>
<td>J.</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
<td></td>
</tr>
<tr>
<td>Lindenbaum</td>
<td>Jorge</td>
<td></td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td></td>
</tr>
</tbody>
</table>

**New Faculty Hires**

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>MI</th>
<th>Degree</th>
<th>Primary Title</th>
<th>Division</th>
<th>Previous Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Porter</td>
<td>Elizabeth</td>
<td>S.</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td>Geriatric Medicine</td>
<td>Geriatric Medicine Fellow, UPMC</td>
</tr>
</tbody>
</table>

Department of Medicine  
http://www.dom.pitt.edu/geri
## Current Post Docs in FY 2015-2016

<table>
<thead>
<tr>
<th>Employee Last Name</th>
<th>Employee First Name</th>
<th>Degree Code</th>
<th>Current Title</th>
<th>Summary of activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andolina-Sanders</td>
<td>Laurie</td>
<td>PhD</td>
<td>Postdoctoral Scholar</td>
<td>Dr. Sanders will examine whether exercise, which has been shown to improve mitochondrial mass and function in elderly subjects as well as to improve PD motor function, has measurable beneficial effects on the mtDNA damage found in PD patients.</td>
</tr>
<tr>
<td>Tyagi</td>
<td>Shachi</td>
<td>MD PhD</td>
<td>Assistant Professor of Medicine</td>
<td>Dr. Tyagi is exploring the role of sleep in the etiology of nocturia and insomnia as a therapeutic target for nocturia. She completed three projects in the past year. Two were published (in JAGS and Sleep), and the third received an award from a major scientific society. The projects were entitled: &quot;Behavioral Treatment of Insomnia: Also Effective for Nocturia?&quot;, &quot;Treating Insomnia: Does Nocturia Matter&quot;, &quot;Defining Nocturnal Polyuria: Should time spent in bed be considered&quot;.</td>
</tr>
<tr>
<td>Naples</td>
<td>Jennifer</td>
<td>PharmD</td>
<td>Postdoctoral Scholar</td>
<td>Dr. Naples is investigating medication-related problems in older adults. During her time as a post-doctoral scholar, she completed a certificate in clinical research, participated in the Integrated Lectures Series, and presented at both the AGS and Science of Adherence conferences.</td>
</tr>
<tr>
<td>Kotlarczyk</td>
<td>Mary</td>
<td>PhD</td>
<td>Postdoctoral Scholar</td>
<td>Dr. Kotlarczyk is working with Dr. Susan Greenspan in the Osteoporosis Prevention and Treatment Center conducting clinical trials of osteoporosis medications in long-term care residents. Her interests in geriatrics include fracture and fall prevention, sarcopenia, and the interactions between muscle and bone with aging.</td>
</tr>
</tbody>
</table>

## Terminating Post Docs in FY 2015-2016

<table>
<thead>
<tr>
<th>Employee Last Name</th>
<th>Employee First Name</th>
<th>Degree Code</th>
<th>Current Title</th>
<th>Summary of activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barone-Gibbs</td>
<td>Bethany</td>
<td>PhD</td>
<td>Postdoctoral Scholar</td>
<td>Dr. Barone Gibbs is the PI on a Pitt Research Development Award to examine varying physical activity on arterial stiffness. She became a scholar in late spring 2014. She plans to examine mechanisms and the impact of reducing sedentary behavior in the elderly.</td>
</tr>
</tbody>
</table>
**PUBLICATIONS**

**High Impact Publications**


  In a prior study (JAMA, 2011), Drs. Perera and Studenski found that gait speed correlated strongly with mortality, even after adjusting for a variety of other factors. In this study, they combined data from seven longitudinal elderly cohorts (N=27,220) to examine the association between baseline walking speed and subsequent mobility difficulty and disability. Impressively, the correlations were even stronger than those with death. Equally important, the resulting nomograms can be used to project absolute risk in subgroups of seniors and also to facilitate shared decision decisionmaking for screening, treatment, and advance care planning.


  Although function declines with age, the roles of age and disease are unclear. In this important study, Dr. Newman and colleagues assessed the trajectory of decline in 5,888 participants of the Cardiovascular Health Study, all of whom were >65 years old at enrollment and were followed for up to 18 years. For the first time, sociodemographic factors, function, diseases, medications, and biomarkers were all tracked prospectively and concurrently. The study found that functional decline: (1) occurred in all participants, (2) accelerated late in life, even for those who remained free of disease, and (3) tracked with known biomarkers, especially cystatin-C.


  Drug-induced hypoglycemia is common, hazardous, and under-detected in nursing homes (NH). Dr. Handler’s team devised a clinical surveillance system, which included computer-generated alerts for residents with glucose ≤ 70 mg/dl who were taking a potentially-contributing medication. The system detected 772 alerts involving 141 residents, 64% of whom had a glucose ≤ 55 mg/dl, and 30% a glucose ≤ 40 mg/dl. Insulin was associated with 99% of alerts. The incidence of drug-associated hypoglycemia was substantial at 9.5/1000 resident-days. Future studies will determine the impact on real-time detection and treatment of hypoglycemia.


  Spurred by its Section of Geriatric Cardiology, created by Dr. Forman, the American College of Cardiology published both this White Paper and a Scientific Statement. The White Paper focuses on the rationale and priorities for the new and growing field of geriatric cardiology, and it includes a suggested core curriculum to improve cardiovascular practice. The Scientific Statement (*J Am Coll Cardiol*. 2016;67:2419-40) identifies knowledge gaps in the existing cardiovascular guidelines and the urgent need for more extensive research.


  Led by Dr. Weiner, content experts and primary care providers created practical, age-appropriate, evidence- and expert opinion-based algorithms. The goal was to guide evaluation and treatment of common contributors to pain and disability in older adults with chronic low back pain. These patient-centered algorithms are for: hip
osteoarthritis, fibromyalgia, myofascial pain, depression, anxiety, maladaptive coping, insomnia, sacroiliac joint, leg length inequality, lateral hip/thigh pain, lumbar spinal stenosis, and dementia. Publication of the 12 articles is ongoing in 2016 in Pain Medicine, the official journal of the American Academy of Pain Medicine.


  Osteoporosis affects ≤ 25% of older men, but the best screening strategy for this group is unclear. To address this, Drs. Nayak and Greenspan developed an individual-level state-transition model to identify the cost-effectiveness of different strategies. Not screening was more expensive than strategies that included screening with dual energy X-ray absorptiometry (DXA). A strategy that included age, femoral neck DXA, and vertebral fracture assessment was the most effective one within accepted cost-effectiveness parameters.


  Anticholinergic drugs can cause delirium. Although this usually abates with drug discontinuation, dementia may ensue. Dr. Hanlon and colleagues examined prospective data from >3,000 community-dwelling seniors who were enrolled in an HMO for at least 10 years, cognitively intact at baseline, and screened biannually. Use of a minimum effective geriatric anticholinergic dose for three years was associated with a 54% increased risk of dementia, even after adjusting for other risk factors, comorbidities, and medications. Confirmation of this relationship is required, but these results add one more reason to be cautious in prescribing agents with anticholinergic side effects, especially for chronic conditions over several years.


  Although urge incontinence (UI) is the most common type of geriatric incontinence, its causes remain unknown. Using biofeedback as a therapeutic probe, these investigators discovered that UI may comprise at least two phenotypes: one that mediates response to biofeedback by facilitating deactivation of the prefrontal cortex and another one that does not and may respond better to pharmacotherapy. These results, combined with findings from their studies suggesting a structural/functional correlation between white matter damage and brain activation, should lead to new insights into the brain’s role in incontinence and suggest new therapeutic approaches.

**Peer-Reviewed Publications: 2014, 2015, 2016**


Bone HG, Dempster DW, Eisman JA, Greenspan SL, McClung MR, et al. Odanacatib for the treatment of postmenopausal osteoporosis: development history and design and participant characteristics of LOFT, the Long-Term


Forman DE. Rehabilitation Practice Patterns for Patients with Heart Failure: The United States Perspective. Heart Fail Clin. 2015;11:89-94.


Kalra A, Forman DE, Goodlin SJ. Medical Decision Making for Older Adults: An international perspective comparing the United States and India. J Geriatr Cardiol. 2015;12:329-34.


Kuller LH, Lopez OL, Mackey RH, Rosano C, Edmundowicz D, Becker JT, Newman AB. Subclinical Cardiovascular Disease and Death, Dementia, and Coronary Heart Disease in Patients 80+ Years. J Am Coll Cardiol. 2016 Mar;8;67(9):1013-22.


Lo-Ciganic WH, Donahue JM, Jones BL, Perera S, Thorpe JM, Thorpe CT, Marcum ZA, Gellad WF. Trajectories of diabetes medication adherence and hospitalization risk: a retrospective cohort study in a large state Medicaid program. j Gen Intern Med. 2016 Sep;31(9):1052-60.


Department of Medicine

http://www.dom.pitt.edu/geri


http://www.dom.pitt.edu/geri


http://www.dom.pitt.edu/geri


Weiner DK. Introduction to Special Series: Deconstructing chronic low back pain in the older adult: shifting the paradigm from the spine to the person. Pain Med. 2015 May;16(5):881-5.


Over the past year, the Division of Hematology/Oncology has continued to focus on the tripartite mission of excellence in patient care, research, and education. The Division's priorities continue to center on the recruitment of physician-scientists, the reorganization of clinical services, and on the education and training of the hematology-oncology fellows and Internal Medicine housestaff.

We are pleased to highlight the following faculty recognitions and awards in FY 2016:

- Lisa Butterfield PhD was appointed President of the Society for the Immunotherapy of Cancer (SITC) in November 2015. Her official one-year term began in November 2016.
- Nancy Davidson MD assumed her role as President of the American Association for Cancer Research (AACR) in April 2015 for a one-year term.
- Edward Chu MD was appointed to serve on the Executive Council of the Consortium for the Globalization of Chinese Medicine (CGCM), an international organization focused on the development of Chinese medicine for human diseases.
- James J. Lee MD PhD was appointed to be a member of the NCI Colorectal Cancer Task Force of the NCI GI Cancer Steering Committee. He also serves as a member of the NRG Oncology Colorectal Cancer Core Committee.
- Shannon Puhalla MD was appointed to serve as the Director of the Breast Cancer Early-Phase Drug Development Program for NSABP.
- Rahul Pari MD PhD was awarded the G. David Roodman Excellence in Mentoring Award.
- Donald Woytowitz MD was awarded the Alan Winkelstein MD Memorial Fellow Educator of the Year Award.

RESEARCH

Several Division faculty members are internationally recognized for their leadership and expertise in various solid tumors. –Ever mindful of the Division's patient-focused mission, faculty strive to improve their understanding of cancer's biological basis in an effort to develop new approaches to prevent cancer and to refine and redefine the ways in which patients are diagnosed and treated.

The Division has a benign hematology section with more than 10 physician-scientists and research investigators, making this group one of the larger benign hematology programs in the United States. As a result of recent growth, we expect grant funding and clinical trials accruals to increase significantly over the next few years. In particular, working in close collaboration with the Institute for Transfusion Medicine, plans are in place to develop a Benign Hematology Center of Excellence, which will provide comprehensive outpatient clinical services for the entire spectrum of benign hematologic disorders. In addition to clinical care, the goal of this center will be to conduct state-of-the-art clinical and translational research.

The Division has maintained a strong commitment to research as evidenced by both grant funding and clinical research. In FY 2016, direct funding totaled $12.2 million.

Several key faculty members have noteworthy peer-reviewed grants:
• Timothy Burns MD PhD received a Clinical Scientist Development Award from the Doris Duke Foundation, which is a 3-year award with direct costs totaling $450,000. Dr. Burns is one of 15 research scientists and medical doctors to have received a Kimmel Scholars Award from the Sidney Kimmel Foundation for Cancer Research.

• Edward Chu MD is PI of the NCI T32 training grant focused on cancer therapeutics.

• Edward Chu MD is PI of the NCI UM1 grant focused on the development and conduct of Phase 2 clinical trials. This grant represents a collaborative effort between UPCI and the University of Pennsylvania Abramson Cancer Center, which is now termed the Pennsylvania Cancer Consortium (PCC).

• Adam Brufsky MD PhD is PI of the NCI U10 grant entitled "NCTN Network Lead Academic Site".

• Nancy Davidson MD is PI of the NCI P30 cancer center grant that maintains UPCI as one of 45 NCI-designated comprehensive cancer centers in the US.

• Julie Bauman MD is the Co-PI of the NCI-supported P50 Head and Neck Cancer SPORE grant.

• John Kirkwood MD is the PI of the NCI-supported P50 Melanoma and Skin Cancer SPORE grant and the PI of a T-32 training grant for skin biology and skin cancer.

• Jim Herman MD is the PI of the NCI-supported P50 Lung Cancer SPORE grant.

The Division continues to place significant emphasis on clinical and translational research. Clinical faculty devote considerable time and effort to developing clinical trials that investigate novel agents and/or combination regimens. In FY16, Division faculty enrolled 1,352 patients on therapeutic, non-therapeutic, and compassionate-use clinical trials, which represents a 10% increase when compared with the number of enrolled patients in FY 2015.
Faculty Research Interests

Leonard Appleman MD PhD
Dr. Appleman’s current research efforts in the field of tumor immunology include collaborating with Dr. Pawel Kalinski in the conduct of a clinical trial of an autologous dendritic cell vaccine in patients with biochemical recurrence of prostate cancer (UPCI 06-070). Dr. Appleman is also working with Dr. Michael Lotze on another investigator-initiated Phase I study of high-dose interleukin-2 plus hydroxychloroquine (UPCI 11-080), and he has co-authored a review on inhibiting autophagy in renal cell carcinoma with his collaborators (Lotze, Maranchie and Appleman 2013, Cancer J.). He is site principal investigator for the NCI-funded Cancer Immunotherapy Trials Network (CITN) study of interleukin-7 and sipuleucel-T for men with castration-refractory prostate cancer and was the site PI for the Cytokine Working Group IL-2 Select study (McDermott et al. 2014, Clin. Cancer Res.). Dr. Appleman also serves as site PI for several industry-sponsored studies investigating cancer immunotherapy, one of which was presented at ASCO in 2014 (Choueiri et al.).

Nathan Bahary MD PhD
The principal goal of Dr. Bahary's research interests is to combine the power and insight of vertebrate development to elucidate basic molecular processes and the treatment of cancer. The generation of mutants and alteration of specific gene expression is one method used to characterize the discrete steps involved in normal vertebrate development and the initiation and progression of tumors. The zebrafish (Danio rerio) is an especially robust vertebrate system for isolating and defining the novel factors affecting these processes. The zebrafish's developing embryos are transparent, facilitating visualization, and they have functioning organ systems by 24 hours post-fertilization. Transgenic zebrafish, made by fusing the promoter elements of genes with a fluorescent marker (GFP), are being used to help elucidate the key steps in cancer development. This work will help provide the basis for designing rational, molecularly based disease-directed therapies.

Michael Boyiadzis MD MHSc
Dr. Boyiadzis' research focuses on natural killer cell biology, immunotherapy and hematopoietic stem cell transplantation.

Adam Brufsky MD, PhD

Melissa Burgess MD
Dr. Burgess is a clinical and translational investigator in sarcoma, with active involvement in current clinical trials. Her research efforts include collaboration with Dr. Lisa Butterfield, director of the Immune Monitoring and Cellular Products Laboratory (IMCPL) at the University of Pittsburgh Cancer Institute (UPCI), with a focus on analyzing peripheral blood samples from SARC 028: A Phase II Study of the Anti-PD1 Antibody Pembrolizumab (MK-3475) in Patients with Advanced Sarcomas. Planned analyses include the assessment of T-cell populations and other immune markers in the circulation with correlation to tumor response to pembrolizumab. Results will be combined with the other correlative studies from SARC 028, including correlation of response with PD-L1 status and immune monitoring within the tumor. These transitional studies should offer unique insights into the biology of PD-1 blockade in sarcoma. Dr. Burgess serves as local principal investigator (PI) for SARC 028, a clinical trial through Sarcoma Alliance for Research through Collaboration (SARC), in which the University of Pittsburgh is a SARC-participating institution.

Timothy Burns MD PhD
Dr. Burns's research and clinical interests focus on the development of targeted therapies for KRAS-mutant NSCLC. His laboratory has two principal areas of focus, both of which center on the eventual development of therapies of KRAS-mutant NSCLC. The first line of research involves the role of the transcription factor TWIST1 in oncogene-driven NSCLC. Dr. Burns and his team have demonstrated that TWIST1 is essential for lung tumorigenesis mediated through...
several key oncogenic drivers including mutant KRAS. The lab is currently working on defining the mechanisms through which targeting TWIST1 leads to oncogene-induced senescence and apoptosis, both in vitro and in vivo. Furthermore, Dr. Burns is studying the prognostic significance of TWIST1 overexpression in mutationally defined patient samples and developing inhibitors of TWIST1 that can be translated into the clinic. The second line of research in the Burns lab focuses on studying the mechanisms of resistance to the Hsp90 inhibitor, ganetespib, in KRAS-mutant NSCLC in the laboratory, while in parallel developing a Phase I/II trial of the combination of an MTOR inhibitor and ganetespib in patients with advanced KRAS-mutant lung adenocarcinoma. These preclinical studies will inform the biomarker analysis of patient samples to be collected during the trial.

Lisa Butterfield PhD
The Butterfield laboratory studies the interaction between the immune system and cancer, with a primary focus on on melanoma and hepatocellular cancer. In melanoma, the more immunogenic nature of the tumor and the depth to which it has been studied has created a level of understanding of the tumor's molecular changes and the variety of patient immunological responses. These factors have made possible the highly detailed study of these responses as well as the design of complex immunotherapy clinical trials to induce more potent anti-tumor responses. In hepatocellular cancer, the lack of spontaneous immunity and paucity of known tumor antigens creates an opportunity for the study of new immunotherapy for this difficult disease.

Edward Chu MD
Dr. Chu is involved in basic, clinical, and translational cancer research. His basic research interests have focused on the characterization of the molecular mechanisms underlying the development of cellular drug resistance, especially as it relates to the fluoropyrimidine class of anticancer agents. His research group was the first to identify translational autoregulation as a novel regulatory mechanism in eukaryotes for controlling the expression of the folate-dependent enzymes, thymidylate synthase, and dihydrofolate reductase. His clinical translational research efforts have focused on identifying novel drugs and treatment strategies for colorectal cancer and other GI cancers as well as developing early-phase I/II clinical trials. He has a strong interest in integrating Chinese herbal medicine with standard cancer chemotherapy with the goal of enhancing clinical activity and reducing the toxicity associated with chemotherapy.

The Chu lab has been investigating the potential role of antisense and siRNA's as novel therapeutic molecules for the treatment of colorectal cancer. The goal of these studies is to identify novel molecules to prevent and/or overcome the development of cellular drug resistance to inhibitor compounds that target thymidylate synthase, a well-established target for cancer chemotherapy. The Chu lab observed that siRNA's were significantly more potent and specific in their ability to repress TS mRNA translation, resulting in potent inhibition of TS synthesis. Moreover, they were able to completely restore chemosensitivity to anticancer agents that target TS, including the fluoropyrimidines and TS antifolate inhibitors

Nancy Davidson MD
Dr. Davidson's laboratory provided the first description of epigenetic regulation of the estrogen receptor (ER) alpha gene (ESR1) through DNA methylation and/or histone modification in human breast cancer cells and demonstrated that inhibitors of DNA methyltransferase and/or histone deacetylases could lead to functional ER re-expression. These early studies set the stage for work by many labs, including her own, to define the role of epigenetic gene modifications in hormone resistance in breast cancer. Recognition of the importance of epigenetic changes (in addition to genetic changes) to breast cancer progression as well as their reversibility (which makes them suitable therapeutic targets) led her lab to define the mechanisms by which inhibitors of DNA methyltransferases as well as histone modifying enzymes can suppress breast cancer growth in vitro. These preclinical studies were advanced to a proof of principle "window" trial of the histone deacetylase inhibitor, vorinostat, in women with early breast cancer, which confirmed that vorinostat could decrease markers of proliferation. This provides support for further development of epigenetic modifiers as potential therapies for breast cancer.
Laura De Castro MD
Dr. De Castro's research interests include sickle cell-related psychosocial issues, pulmonary hypertension, drug development, and pregnancy and obstetric outcomes. She has developed research hypotheses, designed studies, and applied for extramural support as well as managed the regulatory, data collection and research-related clinical trials. Dr. De Castro has also implemented the planning and development of phase II and III and translational research clinical trials.

Albert Donnenberg PhD
Dr. Donnenberg's research interests, which he shares with his wife and scientific partner, Dr. Vera Donnenberg, focus on cancer stem cells and their role in tumorigenesis, invasion, and metastasis. They view stemness in epithelial cancers as a state rather than the property of a unique cell type, with individual tumor cells transiting in and out of the cancer stem cell state. According to this interpretation, the more aggressive the tumor, the more cells exist in the stem-like state at any given time. In xenograft models, tumorigenicity is dependent on this state, which can be recognized by the expression of a number of markers that are associated with normal mesenchymal stem cells. In epithelial cancers, mesenchymal markers are associated with invasion, immune suppression and drug resistance. Taken together, the cancer stem cell paradigm has converged with the bidirectional epithelial to mesenchymal/mesenchymal to epithelial transitions (EMT/MET). The Donnenbergs's working hypothesis is that neoplastic transformation and conferral of invasiveness are often independent processes, the later on wound-healing signals present in the tumor microenvironment. Thus, a carcinoma in situ and an invasive carcinoma may share a common mutational profile but exist in very different microenvironments. Since the environment is controlled to a large part by tissue macrophages and stromal cells, which interact at close distances with tumor cells, our research efforts are currently aimed at understanding how polarization toward wound healing influences tumor cell behavior, and how tumor cells influence polarization.

Kathleen Dorritie MD
Dr. Dorritie has been involved in laboratory research focusing on the development of novel therapeutic agents for acute myeloid leukemia. Her lab work focuses on targeting the JAK-STAT pathway, which is implicated in a variety of malignancies, including acute myeloid leukemia. More recently, she has become involved in the UPCI Cancer Therapeutics Program, focusing on developing early phase clinical trials in lymphoid malignancies. She has a particular interest in high risk B-cell lymphomas. Dr. Dorritie also teaches a number of didactic lectures for both medical students and fellows and teaches clinically on the leukemia, stem cell transplant, and malignant hematology consult services.

Jan Drappatz MD
Dr. Drappatz's primary areas of research involve the development of novel agents to treat glioblastoma, central nervous system lymphoma, and other primary and metastatic brain tumors. He has served as the principal investigator of numerous clinical trials to identify effective therapies for patients with brain tumors and other neurological ailments associated with cancer. Dr. Drappatz is currently leading several clinical trials involving immune therapy, new targeted therapies as well as treatments targeting tumor vasculature. His work has been presented nationally and internationally and has resulted in well over 150 manuscripts, book chapters and abstracts. He serves as a peer reviewer for multiple journals.

Robert Ferguson PhD
Dr. Ferguson's research interests include the cognitive-behavioral treatment of late cognitive effects of cancer, cancer survivorship, and palliative care. He focuses on the development of cognitive-behavioral therapies for cancer-related cognitive dysfunction and designing and carrying out randomized clinical trials to evaluate treatments. Funding for his work includes grants from the National Cancer Institute, NIH Office of Research on Women's Health, and the Lance Armstrong Foundation.

Julien Fourcade PharmD PhD
Dr Fourcade's research activities are focused on the study of spontaneous and vaccine-induced T cell immune responses against melanoma and other solid tumors in cancer patients, as well as their interaction with cancer cells.
and other immune cell subsets involved in anti-tumor immunity in the tumor microenvironment. In particular, Dr. Fourcade is involved in the study of the multiple mechanisms leading to tumor-induced immunosuppression and tumor escape in cancer patients, including the study of multiple co-inhibitory receptors (ex: PD-1, BTLA, Tim-3, TIGIT) expressed by tumor antigen (TA)-specific effector CD8+ and CD4+ T cells and regulatory T cells present in the periphery and at tumor sites of patients with advanced cancer. Dr. Fourcade’s aim is to assess the potential of newly designed immunotherapeutic agents targeting immune checkpoint receptors on T cells in order to reverse tumor-induced TA-specific T cell dysfunction/exhaustion and/or reverse Treg-induced immunosuppression in the context of cancer.

Deborah Galson PhD
Dr. Galson investigates the regulation of differentiation starting from identifying the key transcriptional regulators outward to reveal the important signal transduction pathways. Her lab uses this approach to investigate pathological changes in the bone microenvironment, particularly osteoclasts and osteoblasts, in Multiple Myeloma (MM) and Paget’s disease of bone. Dr. Galson’s current studies focus on: the mechanism by which Measles virus nucleocapsid protein (MVNP), which contributes to Paget’s disease of bone, activates cellular genes and alters osteoclast differentiation; the mechanism of cooperation between MVNP and p62 (SQSTM1) with ptotic mutations (eg. p62P392L) to generate Paget’s lesions; the mechanism by which MM cells suppress osteoblast differentiation by inducing epigenetic repression of Runx2; the role of Gfi1 in regulating osteoblast and osteoclast differentiation and identification of cofactors; and the roles of the IKK family members TBK1, IKKe, and optineurin in inflammatory bone diseases. The Galson lab studies have identified novel potential therapeutic targets in the pathological bone microenvironment in MM-induced bone disease. The usefulness of inhibiting these targets is under investigation in preclinical studies.

James Herman MD
Dr. Herman is the associate director of the Hematology/Oncology Fellowship program at the University of Pittsburgh. His research program explores changes in DNA methylation in cancer and was the first to demonstrate that tumor suppressor genes are silenced by promoter region methylation. Dr. Herman’s team has characterized changes in methylation associated with the development and progression of cancer, including the demonstration of changes in DNA methylation in premalignant lesions. Current research is aimed at utilizing these findings to improve the management of patients through the development of prognostic, predictive, and early detection epigenetic biomarkers, and in studies of epigenetic therapy. Dr. Herman’s lab has developed new methods for the study of DNA methylation (methylation specific PCR, in Situ MSP, ERMA, and more recently nanotechnology based detection methods, included MS-QFRET and MOB, DREAMing). These sensitive methods have been used for the early detection of cancer and for developing predictive biomarkers. He is a member of TCGA (The Cancer Genome Atlas) and has characterized genome wide epigenetic changes in multiple forms of cancer.

Annie Im MD
As a clinical researcher, Dr. Im has been involved in the development of clinical trials for the treatment of acute myeloid leukemia (AML) and GVHD. Specifically, she has implemented a trial for the treatment of AML in elderly patients using a novel induction regimen based on the mechanism of epigenetic priming. In addition, she has an interest in novel targets for the treatment of chronic GVHD, such as JAK-STAT pathway inhibition, and has implemented trials in this area in collaboration with the Chronic GVHD Research Group in the Experimental Transplantation and Immunology Branch of the National Cancer Institute. Her clinical interests also include development of a Chronic GVHD and Long-Term Follow Up program for the stem cell transplant program at UPMC. Dr. Im has also been heavily involved in medical education for residents and fellows, serving as an Associate Program Director for the Hematology/Oncology Fellowship and the Subspecialty Education Coordinator for the Internal Medicine Residency from 2013-2016.

Rachel Jankowitz MD
Dr. Jankowitz is an Assistant Professor of Medicine in the Division of Hematology/Oncology at the University of Pittsburgh School of Medicine. She has served as a PI or co-investigator on multiple breast cancer clinical trials. Her areas of research include the study of invasive lobular carcinoma (ILC), including an ongoing clinical trial examining endocrine response in invasive lobular carcinoma, (effort supported by a Komen Career Catalyst Award) and a
comprehensive database of ILC. She also is the co-PI of the Cancer Family Registry for Research and Surveillance (CFR, IRB#0406182), an established registry and specimen bank to facilitate multidisciplinary research related to individuals with family history concerning for hereditary breast and/or ovarian cancer.

**Gregory Kato MD**
Dr. Kato's research specialties have focused on blood flow physiology studies, clinical trials, and proteomic analysis of plasma to unravel new mechanisms contributing to pulmonary hypertension and other complications of sickle cell disease. His lab has formulated a model to suggest that pulmonary hypertension, stroke, leg ulcers, and priapism share features of vasculopathy and more severe hemolytic anemia, and that pain crisis, acute chest syndrome, and avascular necrosis share evidence of poor blood circulation due to viscosity. These two groups overlap and are not completely distinct.

**John Kirkwood MD**
Dr. Kirkwood's research focuses upon melanoma immunobiology, therapy, and prevention. He developed the first FDA-approved immunotherapy of melanoma (1996) and has led immunotherapy development in cancer for the past 45 years, beginning decades before immunotherapy had reached the limelight it has achieved in melanoma and other solid tumors over the past 5 years. He has advanced the multimodal therapy of melanoma with surgery, stereotactic radiotherapy, chemotherapy, and molecular antitumor agents. Dr. Kirkwood is now pioneering new approaches to the assessment of combinations of the 10 recently-approved new immunotherapies and molecular therapies that are anticipated to be the focus of the next decade of clinical translational research.

The Kirkwood laboratory is engaged in the molecular and immunohistological analysis of melanoma, studying tissues from the institutional, national, and international trials with which Dr. Kirkwood is engaged. Metastatic and loco-regional tumor tissues from patients participating in new combination therapies, neoadjuvant trials, and prevention interventions are examined with an emphasis upon the alterations in immunomodulatory STAT signaling pathways, and effector immune responses.

**Joseph Kiss MD**
As a clinical investigator, Dr. Kiss has received federal funding for the past 13 years as a member/grantee of several NHLBI-sponsored research programs, including the Transfusion Medicine Hemostasis/Thrombosis Clinical Trials Network (TMH-CTN), and REDS-II and III programs [REDS is an acronym for Retrovirus(REDS-II) or Recipient (REDS-III) Epidemiology in Donors Study], and through the RO1 award mechanism (STRIDE-Strategies to Reduce Iron Deficiency). His research interests include studies in thrombotic microangiopathies, particularly thrombotic thrombocytopenic purpura (TTP). He served as protocol lead/PI on the multicenter Study of TTP and Rituximab (STAR) trial in 2009. Although the trial was closed early, the study was innovative in its design to utilize immunotherapy (rituximab) up front in a randomized controlled trial in acquired (autoimmune) TTP that has served as a template for other non-randomized studies performed successfully in Europe. He continues his research work in TTP as a site PI for caplacizumab, a novel heavy chain monoclonal antibody that blocks VonWillebrand A1domain-platelet receptor Ib binding. He is also pursuing therapies for other thrombotic microangiopathies, such as "TAMOF", or Thrombocytopenia-associated Multiorgan Failure, with plans for designing a randomized pilot trial utilizing plasma exchange.

**James Lee MD PhD**
The primary focus of Dr. Lee's research has been two-fold: the design and conduct of early-phase clinical studies of novel agents in colorectal cancer and early drug development in solid tumors—and the development of immunotherapy to treat metastatic colorectal cancer. He has designed and conducted several Phase I and Phase II studies in both areas. Dr. Lee has also served as a principal investigator of several NCI-sponsored phase I trials at the University of Pittsburgh Cancer Institute as well as several industry-sponsored phase I/II clinical trials. He is presently a co-investigator of his lab's NCI-UM1 Phase I grant.

Dr. Lee has served as the Director of the UPCI Phase I Clinic and the Director of the UPCI Early Phase Clinical Research Support (EPCRS). He has also served as a member of the NSABP Foundation Protocol Planning Team for
Early Phase Clinical Studies and Colorectal Cancer Committee, the NRG Colorectal Cancer Committee, and the Colon Cancer Task Force of the NCI Gastrointestinal Steering Committee (GISC).

Vera Levina PhD
Dr. Levina’s research interests include lung NSCLC and SCLC biology and therapy. She also focuses on lung cancer stem cells, the mechanisms of drug and radiation resistance, and the preclinical study of drug combination targeting bulk tumor cells and CSCs.

Frank Lieberman MD
Dr. Lieberman serves as the director of the adult neuro-oncology program within the University of Pittsburgh Cancer Institute, where he oversees the design and conduct of clinical trials for patients with primary and metastatic brain tumors. He has more than 30 years of experience in the design and conduct of translational therapeutic trials for brain tumor patients and currently serves as our institution’s principal investigator for participation in the Adult Brain Tumor Consortium, NRG Consortium, and ECOG-ACRIN. Dr. Lieberman serves on the CNS Tumor committee, experimental imaging, and biomarker committees for ECOG-ACRIN. He has a focused expertise in immunotherapeutic approaches to high- and low-grade gliomas. He has served and currently serves as principal investigator and co-investigator in glioma vaccine trials as well as immune checkpoint inhibitor trials and in trials evaluating molecularly targeted therapeutic drugs. In addition, he is the co-investigator on our institutional imaging projects assessing novel PET tracers and high-field-strength MRI spectroscopy and dynamic contrast imaging as early biomarkers of response in clinical trials for newly diagnosed and recurrent glioblastomas. Dr. Lieberman has chaired the working group for Clinical Trials Design and Development for the NCI Quantitative Imaging Network. In collaboration with Dr. Marina Nikaforovna and Dr. Ronald Hamilton in the Department of Pathology, he has participated in the development of one of the largest molecular genomic databases for high- and low-grade gliomas in the United States.

Anna Lokshin PhD
Dr. Lokshin’s research centers on the discovery and characterization of biomarkers for screening, diagnosis, and prognosis of cancer, in particular, ovarian and pancreatic cancers. Her group has identified biomarker combinations that recognize ovarian cancer 1-4 years earlier than current methods (CA125 and transvaginal ultrasound) and pancreatic cancer – 2-6 years earlier. The group also is working on discovering biomarkers in several bodily fluids, including serum/plasma and urine.

Carissa Low PhD
Dr. Low’s research focuses on interactions between behavior, biology, and patient-centered outcomes in the context of cancer. She is particularly interested in the use of mobile and online technology to assess and target health behaviors, psychological stress, and symptoms during cancer treatment. Current projects include a prospective observational study examining biological (e.g., proinflammatory cytokines) and behavioral (e.g., physical activity) predictors of postoperative recovery after cancer surgery; a randomized controlled trial testing a technology-mediated sedentary behavior intervention before and after cancer surgery; a pilot study testing whether smartphone and wearable sensor data can detect changes in stress and symptoms during chemotherapy; and sentiment analyses to identify the mechanisms underlying American Cancer Society online support communities.

Enrico Novelli MD
Dr. Novelli’s research has focused on the mechanisms underlying vascular dysfunction in SCD via three main projects: 1) He has explored the role of the protein thrombospondin-1 in SCD, finding that elevated plasma levels of TSP1 in several large cohorts of patients with SCD are associated with vaso-occlusive complications and identify a subset of patients who display hemostatic activation and have a more severe phenotype. In translational studies presented as podium talk at the American Society of Hematology Annual Meeting, he also found TSP1 to cause pulmonary hypertension in transgenic mice by binding to its receptor CD47. A second line of Dr. Novelli’s research has focused on the characterization of arterial stiffness as a mechanism of vascular dysfunction in SCD. He has discovered a link between hemolysis and arterial stiffness by showing that hemolysis is independently associated with arterial stiffness measured by pulse pressure in a large cohort of SCD patients. This discovery is of high clinical relevance because it
suggests that elevated hemolysis rates encountered in a subset of SCD patients may lead to an increased risk of vascular complications. Dr. Novelli’s third and most recent project concerns the cerebral vasculature in SCD in an effort to elucidate SCD-related cognitive impairment. He has discovered a neuroimaging marker of small vessel disease associated with cognitive function in SCD.

Solomon Ofori-Acquah PhD
Dr. Ofori-Acquah has research interests in molecular hematology, endothelial barrier function, sickle cell disease (SCD), and global health. His basic science research focuses on mechanisms of neutralizing erythroid danger associated molecular pattern (eDAMP) molecules. This work encompasses studies of developmental, genetic, and epigenetic regulation of hemopexin and heme oxygenase-1, the key neutralizing molecules of extracellular heme the prototypical eDAMP. The research is translated into an understanding of the role and mechanism of extracellular heme in the pathobiology of vascular complications in SCD. One major translational focus is acute chest syndrome, the leading cause of premature death in SCD. The Ofori-Acquah lab developed the first mouse model of acute chest syndrome and this preclinical model is being used to find targeted therapies for for the syndrome. Dr. Ofori-Acquah’s global health research centers on a longitudinal observational study of a large newborn cohort in Ghana to define markers of end-organ damage in SCD. Additional global health work focused also on SCD is performed under the auspices of the H3Africa consortium, with a multi-disciplinary team of collaborators in Cameroon, Tanzania, and South Africa. Dr. Ofori-Acquah directs a research education NIH-funded R25 program aimed at catalyzing the training of graduates, postdocs, and junior faculty in blood science research. He is a Visiting Professor and Director of a human genetics graduate course in a Wellcome Trust funded DELTAS (Developing Excellence in Leadership, Training and Science) program at the University of Ghana in collaboration with the Pitt Graduate School of Public Health.

Amma Owusu-Ansah, MD
Dr. Owusu-Ansah's primary research interest is translating novel or repurposed therapeutics into clinical settings to prevent or halt the progression of complications of sickle cell disease. Her current research focuses on identifying surrogate markers or nrf2 activation in sickle cell disease. Other interests are in global health and implementation research, specifically identifying strategies to improve access to state-of-the-art medical care for individuals with benign hematologic disorders in different demographic regions of the world. Up to 50% of her research effort is spent in Ghana, West Africa.

Rahul Parikh MD PhD
Dr. Parikh's is engaged in research that evaluates DNA repair pathways in human tumors and the association with resistance to chemotherapy and ionizing radiation. Specifically, Dr. Parikh's team observed that copy number loss of distal 11q is the first step in 11q13 amplification in head and neck cancer. Researchers identified that distal 11q harbored critical DNA damage response genes, including ATM, MRE11A, and H2AFX. Distal 11q loss leads to a functionally deficient ATM pathway and upregulation of the compensatory ATR-CHEK1 pathway. This resulted in therapeutic resistance and poor outcomes for patients with head and neck cancer and other cancers. Dr. Parikh's lab demonstrated that targeted knockdown of the ATR-CHEK1 pathway led to re-sensitization to therapy. His lab's unique role was to identify distal 11q loss and consequent loss of the ATM gene to ATR pathway upregulation and therapeutic resistance. Currently, Dr. Parikh's team is actively involved in evaluating the ATM and ATR pathways in urothelial malignancies. His research is funded by the Bladder Cancer Advocacy Network (BCAN) young investigator award.

Dr. Parikh is actively involved in evaluating the role of androgen deprivation therapy (ADT) in the treatment of prostate adenocarcinomas. In collaboration with Zhou Wang, they evaluated the role of 5alpha-reductase inhibitors sequenced with ADT in delaying the re-growth of prostate cancer cells. The goal is to lengthen the duration of sensitivity to ADT using intermittent ADT sequenced with 5 alpha-reductase inhibitors. This will help prevent side-effects associated with ADT and delay time to developing castrate resistant disease in prostate cancer patients.

Vida Cecilia Passero MD
Dr. Passero's research interests are the analytic hierarchy process for healthcare decision processes and the development of innovative cancer care models using technology.
Shannon Puhalla MD
Dr. Puhalla is the Director of Breast Cancer Clinical Research, overseeing the clinical and translational research efforts of the Breast Cancer Clinical Research Program at the University of Pittsburgh Cancer Institute (UPCI). Her clinical and translational research interests include molecular therapeutics and drug discovery, with a particular emphasis on development of novel agents and combination regimens in early-phase clinical trials in breast cancer. She has received Career Development Awards from the American Society of Clinical Oncology (ASCO)/Conquer Cancer Foundation and the Breast Cancer Research Foundation (BCRF) and also from the Breast Cancer Specialized Program of Research Excellence (SPORE) that was co-held by Johns Hopkins University and the University of Pittsburgh. Her work has been published in key medical journals, such as the Journal of Clinical Oncology, and she has served as a guest reviewer for Cancer Chemotherapy and Pharmacology, the Journal of Clinical Oncology, and the Journal of the National Cancer Institute. She was awarded the Cancer Clinical Investigator Team Leadership Award (CCITLA) by the National Cancer Institute. Dr. Puhalla is actively involved in the National Surgical Adjuvant Breast and Bowel Program (NSABP) Division of Industry Sponsored Trials, and she is the local co-principal investigator of the Translational Breast Cancer Research Consortium (TBCRC). She is particularly focused on novel therapeutics for triple negative breast cancer, reversal of endocrine therapy resistance, and the care of patients with metastatic breast cancer. Her work has also focused on treatment of breast cancer brain metastases and genomic analysis of breast cancer.

Margaret Ragni MD MPH
Dr. Ragni has actively initiated and participated in clinical translational research in congenital hemostasis and thrombosis disorders. She has served as chair of clinical trials, prospective epidemiologic, observational, case-control studies, cost-effectiveness analyses, and investigator-initiated new drug trials in hemophilia and VWD. Dr. Ragni's research studies were among the first multi-center NIH-funded investigator-initiated studies in hemophilia malignancy (NCI), hemophilia inhibitor formation (NHLBI), hemophilia HIV/HCV infection (NHLBI), hemophilia AIDS therapy (NIAID), and hemophilia adult prophylaxis (NHLBI). She co-chaired the State of the NHLBI Science SOS Hemophilia & VWD Subcommittee to design future trials, with three U34 trials funded NHLBI, and three R01 clinical trials in preparation, including one to prevent inhibitors in hemophilia A, one to reduce VWD menorrhagia, and one to prevent VWD postpartum bleeding. She has collaborated on multi-center organ transplant HIV trials (NIAID), hemophilia gene therapy trials (NHLBI); VWD genotype-phenotype studies (NHLBI); novel therapeutics (siRNA-AT3, emcizumab (ACE910) and extended half-life protein trials (VIIa, VIII, IX) for hemophilia, and rhIL-11 and recombinant VWF for VWD.

Priya Rastogi MD
Dr. Rastogi is involved with the development and implementation of phase II and phase III clinical trials, and she serves as the protocol officer for phase II and phase III adjuvant and neoadjuvant breast cancer clinical trials. Her research has been published in several medical journals, including Journal of Clinical Oncology, Clinical Breast Cancer, New England Journal of Medicine, Oncology, Oncology Nurse Forum, Onkologie, Menopause, and Breast Cancer Research Treatment.

Robert Redner MD
Dr. Redner's research interest has been the molecular biology of leukemic transformation and myeloid differentiation. A major focus of his laboratory has been the mechanism underlying differentiation arrest in myeloid leukemia, investigating acute promyelocytic leukemia (APL) as a model system. His group first cloned the NPM-RAR translocation that characterizes the t(5;17) variant of APL, and his lab has had an active program studying the mechanism by which NPM-RAR generates the leukemic phenotype. Dr. Redner is a physician/scientist in the Division of Hematology/Oncology in the Department of Medicine, and a member of the Cancer Therapeutics Program of the University of Pittsburgh Cancer Institute.
Linda Robertson RN MSN Dr PH
Dr. Robertson has multiple research interests, including decision-making as it relates to cancer prevention and early detection, including preventative vaccines. Dr. Robertson also continues to explore the growing problem of HPV infection in our community. Particular interest includes; assessment of individuals’ of lower SES and their knowledge of HPV infection, specifically methods of transmission, the potential for illness/disease, and prevention of HPV through behavior and vaccination. In addition, she is interested in the issue of health equity and cancer care: Dr. Robertson is the site PI for the RCT for “Accountability for Cancer Care through Undoing Racism and Equity (ACCURE)”. Finally, Dr. Robertson, working with a multidisciplinary team, recently completed a pilot study using a mixed qualitative and geostatistical approach for characterizing psychosocial stressors and their spatial relationships with air pollution, across the city of Pittsburgh, and to explore possible relationships with other exposures and cancer incidence. Further research is being developed.

John Schmitz PhD
Dr. Schmitz's laboratory research focuses on the development of novel chemotherapeutic targets and agents for the treatment of human colorectal cancer (CRC). Among his research interests are pharmacodynamic biomarkers of DNA damage response. Dr. Schmitz’s lab demonstrated that local targeted radiotherapy can induce a DNA damage response in patient peripheral blood mononuclear cells as observed by induction of phosphorylation of ATM. The therapeutic inhibition of protein kinase D in CRC is another area of focus. Dr. Schmitz’s team has identified PKD2 as the key isoform responsible for CRC proliferation and demonstrated that PKD2 inhibition (small molecules; siRNA nanoparticles) resulted in tumor growth suppression in in vivo animal models. A third interest area is the identification and validation of traditional Chinese herbal medicines and/or natural compounds with anticancer activity by themselves and in combination with current therapies. The Schmitz lab has shown that an analog of the natural product C1 disorazole effectively inhibited cell proliferation in CRC cells overexpressing ABCB1 protein, a known mediator of resistance to tubulin inhibitors. In addition to small molecule compounds, the lab has demonstrated that clove extract has significant antitumor activity against CRC in both in vitro and in vivo model systems. Researchers in Dr. Schmitz’s lab identified oleanolic acid as the active anti-proliferative compound in clove extract. Current research interests have focused on identifying herbal medicines that enhance the antitumor activity of standard CRC therapies.

Craig Seaman MD MS
Dr. Seaman’s primary research focus is on the role of aging and aging-related conditions in hereditary bleeding disorders, specifically von Willebrand disease and hemophilia. His current research interests include the role of cardiovascular disease and related disorders in von Willebrand disease and hemophilia; the effects of aging on von Willebrand factor levels and bleeding phenotype in von Willebrand disease; and the use of alternative descriptors of body weight for clotting factor concentrate dosing in overweight and obese patients with hemophilia.

Malabika Sen PhD
Dr. Sen’s research focuses on cancer epigenetics with an emphasis on lung cancer. The current work involves understanding and characterizing epigenetic changes in cancer, developing therapeutic strategies based upon epigenetic alterations, and developing alterations in DNA methylation for use as predictive biomarkers and early detection of lung cancer. The aim of our work is to elucidate epigenetic alterations and investigate mechanisms in a series of preclinical models based on key observations from the clinic and use therapeutic strategies to predict sensitivity for the development of clinically relevant biomarkers.

Warren Shlomchik MD
Dr. Shlomchik’s research is dedicated to understanding the complex immunology of allogeneic hematopoietic stem cell transplantation (alloSCT), including graft-versus-host disease (GVHD), graft-versus-leukemia (GVL) and immune reconstitution. The goal of his studies is to make discoveries that can be translated in the clinic. One discovery—that memory phenotype T cells induce less GVHD than do naïve T cells—has been tested in a phase I/II clinical trial in which patients received grafts depleted of naïve T cells. This approach is now being examined in a 4-arm clinical trial that includes high and lower intensity conditioning and grafts that are matched related and unrelated. At the bench, Dr. Shlomchik has mostly taken genetic approaches with mouse models to test fundamental hypotheses regarding alloSCT.
immunology. One major part of his research program has focused on mechanisms of GVHD: the roles of donor and host antigen presenting cells in priming alloreactive T cells; the mechanisms of antigen presentation; and the role of donor tissue infiltrating APCs in promoting GVHD end organ damage. The second main area of investigation has been to understand mechanisms of GVL and GVL-resistance. Dr. Shlomchik’s lab has developed mouse models of GVL-sensitive chronic phase CML (CP-CML) and GVL-resistant blast crisis CML (BC-CML), with both leukemias induced by retroviral transfer of human oncogenes. This has provided both realistic models and genetic flexibility in that leukemias can be induced in any mouse, including those that are gene-modified. Recently, his lab has been applying two photon intravital microscopy to both GVHD and GVL.

Roy Smith MD
Dr. Smith served as the Director of Medical Affairs for the NABP. He has had an interest in breast and colorectal clinical trials for many years. Dr. Smith is a former chair of the Central Investigational Review Board for Cancer Therapy Evaluation Program of the National Cancer Institute and has played a key role in revising its role in the conduct of Cooperative Group Pogram trials.

Richard Steinman MD PhD
Dr. Steinman's laboratory studies the cancer microenvironment with a focus on the molecular and functional interactions between cancer cells, fibroblasts, and platelets. He has developed novel tools to enable fluorescent labeling and desired planned genetic recombination of normal cells that are next to cancer cells, making it possible for normal cells in the path of cancer cells to be isolated and characterized for cancer-induced collaborative signals. Through this approach, he seeks to uncover and to dissect the impact of signaling pathways on tumor-stromal co-evolution. Dr. Steinman also studies tumor dormancy, modeling factors in host stromal cells that could contribute to breast cancer recurrence, and conversion to estrogen receptor negativity in bone. His study of communication between cancer and normal cells also includes work on platelets, in which his laboratory has identified an unexpected pathway that appears to be necessary for platelets to bind to cancer cells and support their spread. Dr. Steinman is currently PI on 3 NIH grants as well as a DoD grant

Quanhong Sun PhD
Dr. Sun’s research focus is determining the mechanism by which the Measles virus nucleocapsid protein (MVNP) results in aberrant osteoclast differentiation. MVNP has been shown to be able to induce a Pagetic phenotype when transduced into osteoclast precursors, and there is increasing evidence that it can play a role in the development of Paget’s disease. Dr. Sun’s lab has reported that MVNP signals through the IKK family member TBK1 to increase IL-6, a key player in creating the pagetic microenvironment. Current studies seek to determine the mechanism by which MVNP regulates the competitive balance between TBK1 activity and levels of OPTN (a negative regulator) in osteoclasts. The lab is also using transgenic mouse models to determine whether increased TBK1 expression in OCL precursors will phenocopy MVNP or cooperate with p62P394L to generate the pagetic phenotype in mice. Further, testing is being done to determine whether TBK1 is required for the formation of pagetic lesions in vivo by crossing TBK1 conditional knockout mice with MVNP/P62KI mice. Dr. Sun is also interested in determining the role and mechanisms of TBK1 and its homolog IKK epsilon in other inflammatory bone diseases, such as multiple myeloma (MM) bone disease. To address this point, Dr. Sun seeks to determine the requirement for TBK1 and/or IKK? activity in myeloma cells, osteoclasts, and osteoblast precursor interactions in the MM bone microenvironment. Her team is working to determine if targeting TBK1/IKKepsilon signaling in vivo will decrease MMBD in an immunocompetent MM mouse model.

Weijjing Sun MD
Dr. Sun focuses on the treatment and clinical research of GI malignancies, primarily on the development of new drugs and biologic/targeted oriented agents in treatment/therapy (including translational research) of gastrointestinal malignancies.
Ahmad Tarhini MD PhD
Identification of biomarkers for therapeutic response, toxicity prediction, and disease prognosis are major foci of Dr. Tarhini's research. He led efforts that demonstrated that S100B is a significant prognostic marker in melanoma, and he also reported on a serum signature consisting of TNFRII, TGFα, TIMP1, and CRP that is prognostic of worse survival. Dr. Tarhini also recently reported that an early-on treatment signature of pro-inflammatory serum markers (IL2Ra, IL-12p40, and IFNa) significantly predicted survival in patients treated with adjuvant IFNa2b.
He has led neoadjuvant studies of immune checkpoint blockade and has reported significant mechanistic findings in the circulation and the tumor microenvironment with therapeutic predictive value. These and other related significant biomarker findings have formed the basis for his recently renewed NIH-funded Skin Cancer SPORE Biomarker Project within the US Intergroup E1609 adjuvant phase III trial, where Dr. Tarhini is testing the therapeutic predictive value of markers of the pro-inflammatory immune response and immune suppression within the circulation and the TME based on common-systems biology. As a clinical and translational physician-scientist, a major objective of Dr. Tarhini's research is focused on overcoming melanoma immune tolerance through combinations of novel immunotherapeutic strategies that involve cytokines and inhibitors of unique checkpoints of immune regulation (UPCI 05-125, E3611, UPCI 11-063, UPCI 14-102, UPCI 15-113). He chairs US Intergroup E1609 adjuvant trial testing ipilimumab at 3 or 10 mg/kg versus IFNa, and co-chairs the Intergroup S1404 anti-PD1 adjuvant trial. He also co-chairs the E3612 and EA6141 trials testing novel combinations targeting immune checkpoints.

Darcy Thull MS
Dr. Thull's primary research interest is the use of hereditary cancer registries to facilitate research in cancer prevention, screening, and personalized care for families with hereditary cancer predisposition.

Gijsberta Van Londen MD MS
Dr. Van Londen performs her own research, but also collaborates on research that is highly relevant to cancer survivors. Her main foci are the assessment and management of adverse effects of and adherence to self-administered cancer therapies as well as the needs of post-treatment cancer survivors.

Liza Villaruz MD
Dr. Villaruz is a clinical and translational investigator in lung cancer, with active involvement in current clinical trials and a strong track record of successfully developing institutional clinical trials through NCI-CTEP and industry. Dr. Villaruz actively develops clinical trials in both the UPCI Lung Cancer Program (LCP) and the UM1 NCI ET-CTN with Phase I Emphasis at the UPCI, facilitating the interactions between them. Among the institutional clinical trials she has developed is the NCI-CTEP UM1 sponsored multi-center phase I clinical trial of the ATR inhibitor VX-970 in combination with irinotecan in patients with solid organ tumors (UPCI 15-164/NCI P9938), which was developed in close collaboration with the translational and basic scientists at the UPCI. Dr. Villaruz is the UPCI Principal Investigator (PI) for the Academic Thoracic Oncology Medical Investigators Consortium (ATOMIC), a national consortium of academic institutions that design and conduct clinical trials in thoracic oncology.

Lazar Vujanovic PhD
Dr. Vujanovic's research is focused on the development of novel immune therapies to treat melanoma, hepatocellular carcinoma, and other solid tumors. His research interests are: identifying the mechanisms by which tumor-derived alpha fetoprotein impacts natural killer (NK) cell biology in hepatocellular carcinoma patients; defining the mechanisms by which recombinant adenovirus-engineered dendritic cell (DC) vaccines recruit, engage, and activate NK cells; developing novel DC-based vaccines for cancer therapy; investigating new strategies to prevent acquired resistance to BRAF and MEK inhibitors in patients harboring BRAF mutant melanoma; and characterizing the role epitope mimicry plays in the development of tumor-specific T cell responses.

Hassane Zarour, MD
Dr. Zarour’s research interests include the identification of novel MHC class II epitopes derived from tumor antigens expressed by melanoma. His laboratory has developed successfully the approach to identify T-helper epitopes derived from a number of human tumor antigens and capable of stimulation antigen-specific CD4+ T cells in patients with
advanced cancer. A second research focus is the development of novel melanoma vaccines trial with T-helper epitopes and adjuvants. Following the successful identifications of T-helper epitopes derived from tumor antigens, Dr. Zarour’s lab has implemented two novel clinical trials with peptides and adjuvants. In particular, it has performed two pilot trials with MHC class I and MHC class II epitopes derived from the cancer/testis antigen NY-ESO-1 in combination with CPG in patients with advanced melanoma. The research has demonstrated the capability of CPG to stimulate potent and ex vivo detectable CD8+ T cell responses to NY-ESO-1. A third research focus is the study of the mechanisms of melanoma-induced T cell dysfunction, including the role of the PD-1, Tim-3, BTLA and TIGIT pathways. Dr. Zarour has reported the upregulation of multiple inhibitory receptors by tumor antigen-specific CD8+ T cells in human melanoma, including PD-1, Tim-3, BTLA, and TIGIT. These studies have led to the identification of CD8+ T cell subsets present in the tumor microenvironment and exhibiting variable levels of T cell dysfunction. His research has also shown the role of dual PD-1/Tim-3 and PD-1/TIGIT blockades in augmenting the expansion and function of tumor antigen-specific CD8+ T cells isolated from patients with advanced melanoma.
Faculty Research and Other Scholarly Activities

Leonard Appleman MD PhD
- Reviewer, New England Journal of Medicine, 2004-present
- University of Pittsburgh Institutional Review Board, 2006-present
- Chair, University of Pittsburgh Cancer Institute Protocol Review Board, 2007-present
- Reviewer, Journal of Immunotherapy, 2007-present
- Reviewer, Cancer Immunology and Immunotherapy, 2007-present
- Reviewer, Cancer Chemotherapy and Pharmacology, 2007-present
- Reviewer, Journal of Urology, 2007-present
- American Society of Clinical Oncology (ASCO), 2007-present
- Reviewer, Journal of Molecular Medicine, 2008-present
- Reviewer, Clinical Genitourinary Oncology, 2009-present
- Reviewer, Urologic Oncology, 2012-present
- Reviewer, Clinical Cancer Research, 2013-present

Nathan Bahary MD PhD
- Eastern Cooperative Oncology Group (ECOG), (GI Steering Committee), 2004-present
- American Society of Clinical Oncology (ASCO), 2015-2016
- Society for Clinical and Translational Science (SCTS), 2015-2016
- National Surgical Adjuvant Breast and Bowel Project (NASBP), 2015-2016
- Pancreatic Cancer Research Team (PCRT), 2015-2016
- American Association for Cancer Research (AACR), 2015-2016
- North American Neuroendocrine Tumor Society (NANETS), 2015-2016
- Liver Center-Interest Group: Liver Tumorigenesis, University of Pittsburgh, 2015-2016
- Digestive Diseases and Nutrition Fellowship study section, 2011-present
- Fellowship Curriculum Committee, UPMC, 2011-present
- BMG Student Review Committee, University of Pittsburgh, 2007-present
- Rotation Site Director, Complex General Surgical Oncology Fellowship, 2013-present
- Ad hoc Reviewer, Science, 2015-2016
- Ad hoc Reviewer, Development, 2015-2016
- Ad hoc Reviewer, Developmental Dynamics, 2015-2016
- Ad hoc Reviewer, Stem Cells, 2015-2016
- Ad hoc Reviewer, Hepatology, 2015-2016
- Ad hoc Reviewer, Gastroenterology, 2015-2016
- Ad hoc Reviewer, Clinical Colorectal Cancer, 2015-2016
- Ad hoc Reviewer, Expert Opinion On Investigational Drugs, 2015-2016
- Ad hoc Reviewer, BMC Genomics, 2015-2016
- Ad hoc Reviewer, Cancer Chemotherapy and Pharmacology, 2015-2016
- Ad hoc Reviewer, Gene, 2015-2016
- Ad hoc Reviewer, Genome Biology, 2015-2016
- Ad hoc Reviewer, Genomics, 2015-2016
- Ad hoc Reviewer, American Journal of Physiology, 2015-2016
- Ad hoc Reviewer, Wound Repair and Regeneration, 2015-2016
- Ad hoc Reviewer, Journal of Translational Medicine, 2015-2016
- Ad hoc Reviewer, Oncology, 2015-2016
- Ad hoc Reviewer, BioTechniques, 2015-2016
• Editorial Advisory Board, *Oncology Research*, 2015-2016
• Editorial Advisory Board, *Clinical Colorectal Cancer*, 2015-2016
• Lecturer, “Borderline Pancreatic Adenocarcinoma”, ISGIO Meeting, October 2015
• Lecturer, “Updates in Oncology”, Course #4293, Uniontown Hospital, October 21, 2015
• 2016 National Pancreas Foundation Courage Award Recipient, Heinz Field, Pittsburgh, PA, June 24, 2016
• Member, Thesis Committee, Mark Zimmerman, 2009-present
• Member, Thesis Committee, Derek Laux, 2011-present
• Member, Thesis Committee, Mehwish Khaliq, 2013-present
• Member, Thesis Committee, Ali Amjad, 2014-present
• Member, Special Emphasis Panel, NCI SPORE Review, February 2016
• Standing Member, Special Emphasis Review Panel, Postdoctoral Fellowship applications for Digestive Diseases and Nutrition, NIDDK, 2011-present
• Co-Chair, Clinical Pathways in Colorectal Cancer, University of Pittsburgh CancerCenter, 2006-present

Julie E. Bauman MD MPH

• Member, Head and Neck Core Committee, Eastern Cooperative Oncology Group (ECOG), 2008-present
• Member, Head and Neck Core Committee, NRG Oncology, 2015-present
• Chair, HPV/Immunotherapy Subcommittee, NCI Head and Neck Cancer Steering Committee, Recurrent/Metastatic Task Force, 2011-present
• Co-Chair, NCI Head and Neck Steering Committee, Developmental Clinical Trials Working Group, 2013-present
• Director, Section of Head and Neck Cancer, University of Pittsburgh, 2012-present
• Director, Section of Thyroid Cancer, University of Pittsburgh, 2012-present
• Co-Director, UPMC Head and Neck Cancer Center of Excellence, 2012-present
• Guest Editor, Special Topics in Head and Neck Oncology, Oral Oncology Special Edition, 2015
• Editorial Board, *Oral Oncology*, 2012-present
• Scientific Advisor, Incyte Pharmaceuticals: 2015
• American Society of Clinical Oncology, 2004-present
• American Association for Cancer Research, 2005-present
• Data Safety and Monitoring Committee, UPCI, 2013-present

Jan H. Beumer PharmD PhD

• Dutch Society of Clinical Pharmacology and Biopharmaceutics (NVKFB), 2003-present
• American Society of Clinical Oncology (ASCO), 2005-present
• American Association for Cancer Research (AACR), 2005-present
• Society for Analytical Chemists of Pittsburgh (SACP), 2005-present
• American Society for Clinical Pharmacology and Therapeutics (ASCPT), 2010-present
• Pharmacology Subcommittee, Aids Malignancy Consortium (AMC), 2010-present
• Gynecologic Oncology Group (GOG), 2011-present
• Special Member, Alliance for Clinical Trials in Oncology (ALLIANCE), 2012-present
• International Association of Therapeutic Drug Monitoring and Clinical Toxicology (IATDMCT), 2014-present
• Member, National Cancer Institute (NCI) Investigational Drug Steering Committee (IDSC): Pharmacology Task Force Member, 2010-present; Co-Chair Pharmacology Task Force, 2014-present; Clinical Trial Design Task Force Member, 2014-present
• Member, National Cancer Institute (NCI) Cancer Therapy Evaluation Program (CTEP); Member, Translational Scientist VX-970 (ATR inhibitor) Project Team, December 2014-present
• Director, Pharmacology Core Reference Laboratory, 2010-present
• Member, Pharmacogenomics and Populations Pharmacology Committee, 2012-present
• Member, Gynecologic Oncology Group (GOG) now part of NRG; Director, GOG Pharmacology Core Laboratory, 2010-present; Member, Committee on Experimental Medicine, 2011-present; Member, Phase 1 Sub-Committee, 2012-present
• Member, Oncology (ONC) section, American Society for Clinical Pharmacology and Therapeutics (ASCPT), 2011-present
• Founding member, “TDM in oncology” committee, International Association of Therapeutic Drug Monitoring and Clinical Toxicology (IATDMCT), 2014-present
• Member, Clinical Pharmaceutical Scientist Program; Department of Pharmaceutical Sciences, 2008-present
• PharmD Admissions Committee, School of Pharmacy, 2011-present
• Chair, Molecular Therapeutics Drug Discovery Program Correlative Science meeting, 2010-present
• Chair, PhD Program Curriculum Committee, Department of Pharmaceutical Sciences, 2012-present
• Comprehensive Examination Committee, NTMS program, 2014-present
• Appointments, Promotions and Tenure Committee, School of Pharmacy, 2014-present
• Reviewer, Cancer Chemotherapy and Pharmacology, 2005-present
• Reviewer, Journal of Pharmaceutical and Biomedical Analysis, 2006-present
• Reviewer, British Journal of Clinical Pharmacology, 2006-present
• Reviewer, Pharmacotherapy, 2006-present
• Reviewer, Journal of Mass Spectrometry, 2006-present
• Reviewer, Journal of Chromatography B. Analytical Technologies in the Biomedical and Life Sciences, 2006-present
• Reviewer, Molecular Cancer Research, 2007-present
• Reviewer, Molecular Cancer Therapeutics, 2007-present
• Reviewer, Clinical Cancer Research, 2007-present
• Reviewer, Therapeutics and Clinical Risk Management, 2007-present
• Reviewer, Drugs of the Future, 2007-present
• Reviewer, Rapid Communications in Mass Spectrometry, 2007-present
• Reviewer, International Journal of Laboratory Hematology, 2007-present
• Reviewer, Xenobiotica, 2008-present
• Reviewer, Cancer Research, 2008-present
• Reviewer, Oncology Research, 2008-present
• Reviewer, Bioorganic & Medicinal Chemistry Letters, 2008-present
• Reviewer, Applied Radiation and Isotopes, 2008-present
• Reviewer, Bioanalysis, 2009-present
• Reviewer, The Oncologist, 2009-present
• Reviewer, European Journal of Cancer, 2009-present
• Reviewer, Leukemia and Lymphoma, 2010-present
• Reviewer, Expert Opinion On Drug Metabolism and Toxicology, 2010-present
• Reviewer, Journal of Neuro-Oncology, 2010-present
• Reviewer, Clinical Pharmacology and Therapeutics, 2010-present
• Reviewer, Journal of Cellular and Molecular Medicine, 2010-present
• Reviewer, Pharmacogenomics, 2010-present
• Reviewer, Investigational New Drugs, 2010-present
• Reviewer, BMC Pharmacology, 2011-present
• Reviewer, *Melanoma Research*, 2011-present
• Reviewer, *Bioanalysis*, 2012-present
• Reviewer, *Journal of Clinical Oncology*, 2012-present
• Reviewer, *Neurobiology of Disease*, 2014-present
• Editorial Advisory Board, *Cancer Chemotherapy and Pharmacology*, 2009-present
• Editorial Advisory Board, *Journal of Chromatography and Separation Techniques*, 2010-present
• Editorial Advisory Board, *Oncology Research*, 2015-present
• Grant Reviewer, National Science Center (Narodowe Centrum Nauki, NCN) Poland, funding scheme Preludium, Kraków, Poland, 2014
• Member, Educational Book Expert Panel (reviewer of educational chapters), American Society of Clinical Oncology (ASCO), 2010-present
• Abstract Reviewer, American Society for Clinical Pharmacology and Therapeutics (ASCPT), 2012-present
• Reviewer, Clinical Protocols, University of Pittsburgh Cancer Institute, Clinical and Translational Research Center, 2012-present
• Member, Member IDSC Coordination Team (CT), 2016-present
• Member, Appointment, Self-Study Subcommittee on Students Standard; School of Pharmacy, 2015-present
• Poster Judge, Twenty-eighth Annual University of Pittsburgh Cancer Institute Scientific Retreat, 2016
• Director of Translational Science, Appointment, University of Pittsburgh Cancer Institute ETCTN Phase II Trials, 2016-present

Franklin A. Bontempo MD
• American Society of Hematology, 1990-present
• International Liver Transplant Society, 2014-present
• Alpha Omega Alpha, Honor Medical Society, 2014-present
• Appointments and Promotions Committee, 1995-present
• Board Member, Leukemia and Lymphoma Society, 1997-present
• Faculty Member, AOA, 2010-present

Michael Boyiadzis MD MHSc
• Steering Committee, Society of Immunotherapy for Cancer, Immunotherapy Guidelines-Hematology (CIG-HEME), 2014-present
• Director, Acute Leukemia Program, University of Pittsburgh Cancer Institute, 2009-present
• Medical Director, UPCI Immunologic Monitoring and Cellular Products Laboratory, University of Pittsburgh, 2011-present
• Chair, Immunotherapy Guidelines, Acute Leukemia, Society for Immunotherapy of Cancer (SITC), April 2014-present
• Cancer Immunotherapy Guidelines Oversight Committee, Society for Immunotherapy of Cancer (SITC), April 2015-present
• Editorial Board, *Oncology Research*, 2015-present

Adam Brufsky MD PhD
• Leader, Susan G. Komen Postdoctoral Fellowship Study Section, 2010-present
• Editorial Board, *Journal of Clinical Oncology*, 2010-present
• Editorial Board, *Journal of Bone Oncology*, 2012-present
• Reviewer, *Cancer Investigation*, 1998-present
• Reviewer, *Cancer*, 1999-present
• Reviewer, *Journal of Clinical Oncology*, 2000-present
• Reviewer, *Oncology*, 2001-present

http://www.dom.pitt.edu/hemaonc
• Reviewer, *Cancer, Pharmacology*, and Therapeutics, 2002-present
• Reviewer, *Clinical Breast Cancer*, 2003-present
• Member, Breast Committee, National Surgical Adjuvant Breast and Bowel Project, 2006-present
• Reviewer, *Lancet Oncology*, 2007-present
• Reviewer, *Annals of Oncology*, Department of Defense, 2008-present
• Leader, Experimental Therapeutics 2 Study Section, Department of Defense Congressionally Mandated Breast Cancer Research Program, 2009-present

**Melissa Burgess MD**

• Fellowship Clinical Competency Committee, 2015-present
• Member, Pittsburgh Cure Sarcoma, 2015-present
• UPCI Protocol Review Committee, 2014-present
• Fellowship Program Evaluation Committee, 2014-present
• Shadyside Hospital ACT (Admissions/Consults/Transfers) Committee, 2014-present
• Fellowship Curriculum Development Committee, 2014-present
• Sarcoma Alliance for Research through Collaboration (SARC), 2015-present
• Connective Tissue Oncology Society, 2015-present
• American Society of Clinical Oncology, 2015-present

**Timothy F. Burns MD PhD**

• Reviewer and study section member, American Lung Association, 2015-present
• Ad hoc reviewer, MRC New Investigator Research Grant (NIRG Only), 2015
• Reviewer and study section member, CMRF, 2014-present
• Reviewer, *British Lung Foundation*, 2016
• Reviewer and study section member, Genome Canada Genomic Applications Partnership Program, 2016
• Reviewer and study section member, the LUNGevity Foundation, 2015-2016
• Reviewer, Welcome Trust/DBT India Alliance, 2016
• Reviewer, *PLoS ONE*, 2013-present
• Reviewer, *Cancer Biology & Therapy*, 2013-present
• Reviewer, *Cancer*, 2013-present
• Reviewer, *Cancer Research*, 2015-present
• Reviewer, *Clinical Cancer Research*, 2015-present
• Reviewer, *Pharmacology & Therapeutics*, 2015-present
• Reviewer, *BMC Cancer*, 2015-present
• Reviewer, *Frontiers in Oncology*, section Thoracic Oncology, 2015-present
• Sidney Kimmel Foundation for Cancer Research Kimmel Scholar Award, 2015
• Doris Duke Clinical Scientist Development Award, 2015
• UPCI Lung SPORE Development Research Project Award, 2015
• 2016 ASCI Young Physician-Scientist Award, 2016
• American Association for Cancer Research, 1998-present
• American Medical Association, 1998-present
• American Association of Clinical Oncology, 2008-present
• International Association for the Study of Lung Cancer, 2010-present
• Eastern Cooperative Oncology Group (ECOG), 2012-present
• Alliance for Clinical Trials in Oncology, 2013-present
Lisa H. Butterfield PhD
- Chair, Review Panel, NCI ZCA1 SRB-D Omnibus R03 & R21 SEP-7 Review, Bethesda, MD, July 9-10, 2015
- NIAID/CIC Lumexin Steering Committee, 2012-present
- Editorial Board, Cancer Research, 2010-present
- Editorial Board, OncoImmunology, 2011-present
- Section Editor, Journal for ImmunoTherapy of Cancer (JITC), Immunotherapy Biomarkers Section, 2012-present
- Member, Society for Immunotherapy of Cancer (SITC), 2004-present; SITC Society Officer: Secretary/Treasurer, 2011-2014; Vice President, 2014-2016; Member, SITC Council for Immunotherapy Education, 2013-present
- Member, Eastern Cooperative Oncology Group–American College of Radiologic Imaging Network (ECOG-ACRIN), 2005-present; Immunology Core Laboratory Director, ECOG-ACRIN, 2007-present; Lab Science Liaison of the Melanoma Committee, ECOG-ACRIN, 2008-present
- NIH Cancer Immunotherapy Trials Network (CITN) Correlative Science Committee (CSC), 2011-present
- International Society for Cellular Therapy (ISCT), 2013-present; Member, ISCT Immunotherapy Committee, 2013-2016
- NCI Cancer Steering Committee Immunotherapy Working Group, 2015-present
- Co-organizer, UPCI 30th Anniversary Immunotherapy Symposium, June 2016

Edward Chu MD
- Member, American Association for Cancer Research (AACR), 1985-present; Scientific Program Committee, 2011-present; Exhibits Committee, 2012-present; Basic Cancer Research Fellowships Scientific Review Committee, 2013-present; Clinical Research and Experimental Therapeutics Awards Committee, 2014-2016; Colon Cancer Research Fellowships Scientific Review Committee, 2014-present
- Member, American Society of Clinical Oncology (ASCO), 1990-present; Scientific Program Committee, 2012-2015, Track Leader, Colorectal Cancer, 2014-2015
- NCI Investigational Drug Steering Committee, 2010-present
- NCI Experimental Therapeutics (NeXT) Committee, 2012-present
- Chair, Clinical Research Committee, Consortium for Globalization of Chinese Herbal Medicine (CGCM), 2003-present
- Life Sciences Selection Committee, Presidential Science Prize of Taiwan, 2009-2016
- Member/Reviewer, National Health Research Council of Italy, 2005-present
- Member/Reviewer, University Grants Committee, University of Hong Kong, 2005-present
- Member/Reviewer, Grants Committee, Singapore National Medical Research Council, 2008-present
- Scientific Advisory Board, Albert Einstein Cancer Center, 2006-present
- Scientific Advisory Board, Dartmouth-Hitchcock Norris Cotton Cancer Center, 2007-present
- Scientific Advisory Board, Herbert Irving Columbia Cancer Center, 2012-present; Chair, 2015-present
- Scientific Advisory Board, USC Norris Cancer Center, 2012-present
- Scientific Advisory Board, University of Vermont Cancer Center, 2007-present; Chair, 2012-present
- Scientific Advisory Board, Case Western Seidman Cancer Center, 2013-present
- Scientific Advisory Board, NCI Cancer Centers, Medical University of South Carolina Hollings Cancer Center, 2013-present
- Scientific Advisory Board, NCI Cancer Centers, Indiana University Simon Cancer Center, 2014-present
- Scientific Advisory Board, NCI Cancer Centers, University of Wisconsin Cancer Center, 2014-present
- International Cancer Centers Scientific Advisory Board, Taiwan Cooperative Oncology Group, National Health Research Institutes of Taiwan, 1998-present
• International Cancer Centers Scientific Advisory Board, Division of Clinical Research, NHRI, Taiwan, 1999-present
• Scientific Advisory Board, Adventix Pharmaceuticals, San Diego, CA, 2007-2015
• Scientific Advisory Board, Celator, Vancouver, British Columbia, 2009-present
• Scientific Advisory Board, Salzburg Therapeutics, Winston-Salem, NC, 2009-present
• Scientific Advisory Board, The Chemotherapy Foundation, New York, NY, 2008-2013
• Member and Chair, Scientific Advisory Board, Saladex, Bethlehem, PA, 2011-present
• Scientific Advisory Board, Chris4Life Foundation/Colon Cancer Alliance, Washington, DC, 2012-present
• Editorial Board, International Journal of Oncology, 1997-present
• Founding Editor-in-Chief, Clinical Colorectal Cancer, 2000-present
• Editorial Board, Oncology Special Edition, 2003-present
• Editorial Board, Current Reviews in Hematology and Oncology, 2004-present
• Editorial Board, Journal of Chemotherapy, 2004-present
• Editorial Board, Oncology, 2006-present
• Editorial Board, Oncology News International, 2006-present
• Editorial Board, Principles and Practice of Oncology: The Cancer Journal, 2006-present
• Editorial Board, Clinical Oncology News, 2008-present
• Editorial Board, Journal of Clinical Oncology, 2008-present
• Co-Editor-in-Chief, Oncology Research, 2008-present
• Editorial Board, Journal of Experimental and Clinical Medicine, 2009-present
• Journal Referee/Reviewer, Cancer Research, 2015-2016
• Journal Referee/Reviewer, Clinical Cancer Research, 2015-2016
• Journal Referee/Reviewer, Journal of Clinical Oncology, 2015-2016
• Journal Referee/Reviewer, Journal of the National Cancer Institute, 2015-2016
• Journal Referee/Reviewer, Cancer, 2015-2016
• Journal Referee/Reviewer, New England Journal of Medicine, 2015-2016
• Journal Referee/Reviewer, Nature Oncology, 2015-2016
• Journal Referee/Reviewer, Oncogene, 2015-2016
• Journal Referee/Reviewer, Journal of Biological Chemistry, 2015-2016
• Journal Referee/Reviewer, Journal of Clinical Investigation, 2015-2016
• Journal Referee/Reviewer, Molecular and Cellular Biology, 2015-2016
• Journal Referee/Reviewer, Lancet Oncology, 2015-2016
• Journal Referee/Reviewer, Proceeding National Academy of Science, 2015-2016
• Journal Referee/Reviewer, Nucleic Acids Research, 2015-2016
• Journal Referee/Reviewer, RNA, 2015-2016
• Journal Referee/Reviewer, Molecular Pharmacology, 2015-2016
• Journal Referee/Reviewer, Molecular Cancer Therapeutics, 2015-2016
• Journal Referee/Reviewer, Cancer Chemotherapy, 2015-2016
• Journal Referee/Reviewer, Pharmacology, 2015-2016
• Co-Leader, Molecular Therapeutics Drug Discovery Program, 2010-present
• UPCI Clinical Executive Committee, 2010-present
• UPCI Senior Leadership Committee, 2010-present
• UPCI Clinical Research Oversight Committee, 2010-present
• UPCI Biomarkers Steering Committee, 2010-present
• Division of Hematology-Oncology Fellowship Curriculum Committee, 2011-present
• UPCI/UPMC EMR Governance Committee, 2011-present
• University of Pittsburgh Materials Transfer Agreement (MTA) Exception Committee, 2011-present
• UPCI Executive Oversight Committee, 2012-present
- American Association for the Advancement of Science (Fellow), 2005-present

Nancy E Davidson MD
- Co-Chair, Breast Cancer Steering Committee, National Cancer Institute, 2010-2016
- Clinical Trials and Translational Research Advisory Committee (CTAC), National Cancer Institute, 2011-present; Chair 2016-present
- Scientific Advisory Board, Breast Cancer Research Foundation, 1999-present
- Kimmel Scholars Award Committee, 2006-present
- Scientific Advisory Board, V Foundation for Cancer Research, 2008-present
- Damon Runyon Clinical Investigator Award Committee, 2012-present
- External Advisory Board, Vanderbilt-Ingram Cancer Center, Nashville, TN, 2000-present
- External Advisory Board, Karmanos Cancer Center, Detroit, MI, 2003-present
- External Advisory Board, University of Maryland Cancer Center, Baltimore, MD, 2005-2016
- Board of Scientific Consultants, Memorial Sloan Kettering Comprehensive Cancer Center, New York City, NY, 2008-present
- External Advisory Board, Lineberger Comprehensive Cancer Center, University of North Carolina at Chapel Hill, Chapel Hill, NC, 2008-present, Chair 2015-present
- External Advisory Board, MD Anderson Cancer Center, Houston, TX, 2009-present, Chair 2014-present
- External Advisory Board, University of Michigan Comprehensive Cancer Center, 2010-present
- External Advisory Board, Washington University Siteman Cancer Center, St. Louis, MO, 2010-present
- External Advisory Board, Fred Hutchinson/University of Washington Cancer Center, Seattle, WA, 2011-present
- External Advisory Board, Clinical and Translational Science Collaborative, Case Western Reserve University, Cleveland, OH, 2012-present
- External Advisory Board, Baylor College of Medicine Breast Cancer SPORE, 2013-present
- External Advisory Board Mayo Clinic Breast Cancer SPORE, 2013-present
- Scientific Advisory Board, Cologne Center for Integrated Oncology, 2012-present
- Scientific Advisory Board, Institute National du Cancer, Paris, France, 2010-present
- Editor, Oncology, 2008-present
- Editorial Board, Cancer Prevention Research, 2008-present
- Editorial Board, Journal of the National Cancer Institute, 2012-present
- Editorial Board, Breast Cancer Research and Treatment, 2012-present
- American Society of Clinical Oncology, 1985-present
- Co-Chair, Breast Cancer Follow-up Testing Guidelines Expert Panel, American Society of Clinical Oncology, 1996-present
- President, American Association for Cancer Research, 2016-2017
- CME Committee, American Association for Cancer Research, 2010-2016; Chair 2015-2016
- Association of American Physicians, 2010-present; Member AAP Council, 2015-present
- Member, Institute of Medicine, 2011-present
- Distinguished Professor of Medicine, University of Pittsburgh, 2013-present
- The Johns Hopkins Women’s Medical Alumnae Association Hall of Fame, 2015
- Johns Hopkins University Society of Scholars, 2016
- Fellow, American College of Physicians, 2016

Laura De Castro MD
- Steering Committee Member for study entitled STRIDE, 2012-present
- Leader, Safety Review Committee (SRC) for study entitled NKTT 120-SCD1, 2013-present
- University of Pittsburgh School Admission Interviewing Committee, 2015-present

http://www.dom.pitt.edu/hemaonc
• Hem Onc Fellowship Program Evaluation Committee, 2015-2016
• Member, FDA Office of Orphan Products Development, 2012-present
• Recipient, Beckwith Institute Frontline Innovation Program grant, Dec. 2015-present
• American Society of Hematology, 1996-present
• ASH Committee on Practice (four-year commitment), Jan. 2016-present

Albert Donnenberg PhD
• Director, UPMC Hematopoietic Stem Cell Laboratory, 1998-present
• Director, University of Pittsburgh Cancer Institute Flow Cytometry Facility, 1998-present
• Laboratory Director, Children's Hospital of Pittsburgh Hematopoietic Stem Cell Laboratory, 2002-present
• Mentor, Sai Gopalakrishna Yerneni PhD, Research Fellow, CMU, “Bioprinted substrates to study the epithelial to mesenchymal transition”, 2015-2016
• Mentor, Erika Moravcikova PhD, Research Fellow, Cardiothoracic Surgery, “Role of BOK in cancer cell survival”, 2015-2016
• Mentor, Aisha Walker PhD, Research Assistant Professor, “Mechanisms of hydroxyurea efficacy and toxicity in sickle cell disease”, 2015

Kathleen Dorritie MD
• The American Society of Hematology, 2011-present
• American Society for Blood and Marrow Transplantation, 2012-present
• American Society of Clinical Oncology, 2011-present
• American Association for Cancer Research, 2011-present
• Recipient, University of Pittsburgh Vascular Medicine P3HVB Pilot Grant, 2016-2017
• Recipient, University of Pittsburgh Department of Medicine Junior Faculty Scholar Award, 2015-2017
• Recipient, Awarded Loan Repayment Through NIH Loan Repayment Program, 2014-2016
• Protocol Review Committee, University of Pittsburgh School of Medicine, 2015-present
• UPCI Committee Member, Foundation for the Accreditation of Cellular Therapies, 2015-present
• Member, Data Safety and Monitoring Board – Hematologic Malignancies, 2015-present
• Peer Reviewer, three manuscripts for Leukemia, 2015-present

Jan Drappatz MD
• Neuro-Oncology Committee, Alliance for Clinical Trials in Oncology, 2012-present
• Chair, Neuro-Oncology Pathway Development, Via Oncology, 2016-present
• Data Safety Management Committee, University of Pittsburgh, 2012-present
• Institutional Review Board, University of Pittsburgh, Committee D, 2012-present
• Reviewer, Journal of Neuro-Oncology, 2007-present
• Reviewer, Neuro-Oncology, 2015-present
• Reviewer, Expert Reviews of Anticancer Therapy, 2007-present
• Reviewer, International Journal of Radiation Oncology, Biology, Physics, 2008-present
• Reviewer, Future Oncology, 2009-present
• Reviewer, Journal of Clinical Oncology, 2013-present
• Reviewer, Clinical Cancer Research, 2013-present
• Abstract Reviewer, Organizing Committee, 2016 Society of Neuro-Oncology Meeting
• Castle Connolly, Top Doctors, 2012-present
• Best Doctors, 2009-present
• Best of Pittsburgh, 2011-present
• Above and Beyond Award, UPMC, 2014 and 2016
• American Association for Cancer Research, 2005-present
• American Society for Clinical Oncology, 2005-present
• American Academy of Neurology, 2005-present
• Society for Neuro-Oncology, 2005-present

Julien Fourcade PhD
• American Association of Immunology (AAI), 2007-present
• Recipient, U.S. Army Department of Defense CDMRP Career Development Award, “Role of the inhibitory receptor TIGIT in the regulation of CD4+ Tregs in patients with advanced melanoma”, October 2015-September 2018

Deborah Galson PhD
• Research Grant Review Committee, UPSOM Competitive Medical Research Fund, 2004-present
• Membership Engagement and Education Committee, ASBMR, October 2012-October 2015
• VAPHS Subcommittee of Research Safety/Biosafety, 2005-present
• Poster Judge, UPCI Annual retreat, 2011-2012, 2014-2016
• Director & Founder, Pittsburgh Center for Bone & Mineral Research, 2012-present
• 2016 UPCI Retreat Committee; Chaired a session, Fall 2015-June 2016
• Provost's Advisory Committee on Women’s Concerns (PACWC), 2015-2018
• Lumexin Core Advisory Committee, Fall 2015-present
• Member, Qualifying Exam and Thesis Committee for PhD candidate An-Jey Su, Department of Biological Sciences, Duquesne University, Pittsburgh, PA, 2010-2016; Successfully defended.
• Member, Qualifying Exam and Thesis Committee for PhD candidate Sree Harsha Pulugulla, Department of Biological Sciences, Duquesne University, Pittsburgh, PA, 2015-present
• Kurt Weiss Mentoring Committee, Fall 2015-present
• American Society for Bone and Mineral Research (ASBMR), 1996-present
• American Society for Biochemistry and Molecular Biology (ASBMB), 1996-present
• Federation of American Societies for Experimental Biology (FASEB), 1996-present
• American Society of Hematology (ASH), 2014-present
• American Association for Cancer Research (AACR), 2015-present

James Herman MD
• Editor, Cancer Research, 2016-present; Associate Editor, 2000-2006
• Editor, Clinical Cancer Research, 2003-present
• Editor, Journal of Clinical Oncology, 2009-2015
• Senior Editor, Epigenomics, 2009-present
• Editorial Board, Cancer Prevention Research, 2010-present
• American Association for Cancer Research, 2015-2016

Annie Im MD
• ECOG-ACRIN Leukemia/BMT Core Committee, 2012-present
• Reviewer, Protocol Review Committee, University of Pittsburgh Cancer Institute, 2011-present
• Member, Phase I Clinical Trials Group, Molecular Targeted Drug Discovery/Translational Science Group, 2012-present
• Researcher, Chronic Graft-versus-host-disease (GVHD) elective, National Institutes of Health, Experimental Transplantation and Immunology Branch, 2013-present
• Editorial Board, Frontiers in Oncology, 2014-present
• Reviewer, Bone Marrow Transplantation, American Journal of Hematology, Biology of Blood and Marrow Transplantation, Croatian Medical Journal, 2015-2016
• Leukemia & Lymphoma Society Western PA/WV Chapter Advisory Board, 2015-present

http://www.dom.pitt.edu/hemaonc
• Member, Meredith Cowden Foundation, GVHD Symposium Planning Committee, 2015-present
• Invited speaker, National GVHD Symposium, May 2016
• Invited speaker, UPMC CancerCenter conference, Cancer Survivorship for Healthcare Providers: Understanding the Long-Term Side Effects of Cancer Treatment, March 2016
• Invited speaker, Leukemia & Lymphoma Society Blood Cancer Conference, Cranberry, PA, November 2015
• Invited speaker, Society for Immunotherapy of Cancer Regional Advances in Cancer Immunotherapy Regional Program, Pittsburgh, PA, July 2015
• Oral presentation, Leukemia Lymphoma 2015, Dubrovnik Croatia, September 2015
• Poster presentation, ASH Annual Meeting 2015, Orlando, FL, December 2015
• Poster presentation, ASH Annual Meeting 2015, Orlando, FL, December 2015
• Poster presentation, European Society for Blood and Marrow Transplantation Annual Meeting, Valencia Spain, April 2016

Rachel Jankowitz MD
• Eastern Cooperative Oncology Group (ECOG), 2010-present
• Committee Member, Annual Retreat, Women's Cancer Research Center, 2011-present
• Member, Translational Breast Cancer Research Consortium (TBCRC), 2010-present
• Member, National Surgical Adjuvant Bowel and Breast Project (NSABP), 2009-present

Gregory Kato MD
• Editorial Board, Haematologica, the Hematology Journal, 2008-present
• Sickle Cell Trait Literature Review Work Group, Social and Behavioral Research Branch, National Human Genome Research Institute, 2011-present
• Medical Director, Children's Sickle Cell Foundation, Pittsburgh, PA, 2014-present
• Steering Committee, Evaluation of Purified Poloxamer 188 in Vaso-Occlusive Crisis of Sickle Cell Disease (EPIC), 2014-present
• Scientific Chair, Ninth Annual Sickle Cell Disease Research and Educational Symposium, Miami, FL, 2015
• Ad Hoc Member, NIH review of grant applications submitted in response to PAR-13-009: Secondary Dataset Analyses in Heart, Lung, and Blood Diseases and Sleep Disorders, 2015
• Ad-Hoc Grant Application Reviewer, French National Research Agency (ANR), 2015
• Editorial Board, Heliyon Journal, 2015-Present
• Recipient, Enterprise Development Certificate of Achievement, University of Pittsburgh, 2015
• Invited Expert, Prioritizing Comparative Effectiveness Research Questions for the Management of Sickle Cell Disease: PCORI Stakeholder Workshops, 2016
• Reviewer, NIH Study Section P50 application in Stored Blood Toxicity in Trauma Patients, 2016
• Reviewer, NIH Study Section on Secondary Dataset Analyses, 2016
• Grant Application Reviewer, King’s Challenge Fund, King’s College London, 2016

John M Kirkwood MD
• Member, DOD Peer Reviewed Cancer Research Program, 2009-present
• Member, Research Review Section, HJ Lloyd Trust, 2003-present
• Member, M. Scheel Grant Review Study Section, German Cancer Research Foundation, 2007-present
• Professional Advisory Panel, Joanna Nicolay Melanoma Foundation, 2009-present
• Scientific Grant Review Committee, American Association for Cancer Research (AACR), Ocular Melanoma Foundation Fellowship, 2014-present
• Cancer Research Institute Clinic and Laboratory Integration Program Grant Review Study Section (CLIP), 2014-present
• Tissue Bank Committee, Pittsburgh Cancer Institute, 1986-present
• Scientific Advisory Committee, Cancer Research Institute, 1988-present
• Corresponding Member, European Organization for Research and Treatment of Cancer (EORTC), Melanoma Program, 1990-present
• Cancer Research Institute, Kirby Memorial Grant Review Committee/Study Section, 1992-present
• Committee on Tenure, Appointments, and Promotions, Department of Medicine, 2007-present
• Scientific Advisory Committee and Grants Study Section, National Cancer Center, New York, NY, 1984-present
• Scientific Advisory Committee, Melanoma Research Foundation, 2000-present
• Chairman, Medical Advisory Board, Our Clubhouse (formerly Gilda's Club), 2004-present
• Advisory Committee, TAFC Faculty Assembly, 2005-present
• Ad Hoc Appeals Committee, School of Medicine, 2009-present
• Member, Eastern Cooperative Oncology Group (ECOG) Research and Education Foundation, 2011-present
• Advisory Committee, Association of Community Cancer Centers (ACCC), 2012-present
• ECOG-ACRIN Scientific Planning Committee, 2012-present
• ECOG-ACRIN Principal Investigator Committee, 1982-present
• Chair, ECOG-ACRIN Melanoma Committee, 1989-present
• Advisory Committee, Physicians' Education Resource, LLC (PER), 2014-present
• UT Southwestern i-SAbR SPORE External Advisory Board, 2016
• The Italian Association of Medical Oncology Reviewer (AIOM), 2016
• Society of Immunotherapy of Cancer (SITC) Fellowship Review Task Force, 2016
• External Steering Committee Member, Melanoma Value Stream, Oregon Health & Science University, 2016
• American Association of Cancer Research (AACR), 2017 Scientific Program Committee, 2016
• Associate Editor, Clinical Cancer Research, 1995-present
• Associate Editor, American Journal of Clinical Oncology, 1998-present
• Compendium Editor, ASCO, 2005-present
• Editorial Board, Hem-Onc Today, 1998-present
• Editorial Board, Melanoma Research, 1998-present
• Editorial Board, Clinical Advances in Hematology & Oncology, 1998-present
• Editor, Cancer.net, 2005-present
• Associate Editor, American Journal of Translational Research, 2009-present
• Associate Editor, inPractice Oncology, Clinical Care Options, 2009-present
• Current Cancer Therapy Reviews, 2010-present
• Journal of Translational Medicine, Combinational Strategies Section, 2010-present
• Contributing Editor, Cancer Immunology, 2011-present
• Editor, OncoImmunology, 2012-present
• Editor, Biomedicines, 2013-present
• Editor, Melanoma Management, 2013-present
• Editor, Targeted Oncology, 2014-present
• Editor, American Journal of Hematology/Oncology, 2014-present
• AIM at Melanoma, 2004-present
• Steering Committee, Society for Immunotherapy of Cancer, 2009-present
• Steering Committee, DERMA Publications, 2012-present
• European Academy for Tumor Immunology (EATI), 2016
• Elsie Hillman Distinguished Scholar Award, UPCI, 2015
• American Skin Association, Leadership in Melanoma Research, Treatment and Prevention, 2016
• National Cancer Foundation, 1981-present
• International Society for Interferon and Cytokine Research, 1986-present
• Allegheny County Medical Society, 1986-present
• Society for the Immunotherapy of Cancer, 1986-present
Pennsylvania Society of Oncology and Hematology, 1987-present
Clinical Immunology Society, 1990-present
Society for Investigative Dermatology, 1991-present
Pennsylvania Medical Society, 2001-present
Society of Melanoma Research, 2007-present
American Medical Association, 2014-present
Association of American Physicians, 2015-present

Joseph E Kiss MD
- Medical Director, Central Blood Bank, Pittsburgh, PA, 1993-present
- Medical Director, Hemapheresis and Blood Services, The Institute for Transfusion Medicine, Pittsburgh, PA, 1995-present
- Medical Director, Hematopoietic Stem Cell Laboratory, University of Pittsburgh Cancer Institute, 2000-present
- Reviewer, Transfusion, American Society for Apheresis, 2008-present
- Chair, Blood Usage Review Committee, University of Pittsburgh Medical Center, 1991-present
- Chair, Blood Safety Subcommittee, Patient Safety Committee, University of Pittsburgh Medical Center, 2004-present
- Chair, Hemoglobin and Iron Recovery Study (HEIRS) Working Group, NHLBI Recipient Donor Epidemiology Study III (REDSIII), 2011-present
- Total Quality Council, University of Pittsburgh Medical Center, 2013-present
- Research Applications Committee, American Society for Apheresis, 2013-present
- Invited member, The Joint Commission eCQM Blood Management Technical Advisory Panel (TAP) 2014-present

James J Lee MD PhD
- Colon Cancer Task Force of the NCI Gastrointestinal Steering Committee (GISC), 2016
- NRG Oncology Colorectal Cancer Core Committee, 2016
- Associate Member, American Society of Clinical Oncology (ASCO), 2004-present
- Associate Member, American Association for Cancer Research (AACR), 2007-present
- Editorial Board, Clinical Colorectal Cancer, 2006-present
- Editorial Board, Oncology Research, 2015-present
- Advisory Editor, Advances in Gastrointestinal Cancer, 2015-present
- UPCI Protocol Review Committee, 2012-present, (Vice-Chair 2015-present)
- GI Cancer Center Data and Safety Monitoring Board (DSMB), 2012-present
- Phase I Program Data and Safety Monitoring Board (DSMB), 2012-present
- Medical Director, UPCI Phase I Clinic, 2014-present
- Director, UPCI Early Phase Clinical Research Support (EPCRS), 2014-present
- Voting Member, UPMC System Pharmacy & Therapeutics Committee, 2012-present

Vera Levina PhD
- Editorial Board, American Journal of Translational Research, 2009-present
- International Association for the Study of Lung Cancer (IASLC), 2011-present
- Referee, Cancer Research, 2012-present
- Referee, Molecular Cancer Therapeutics, 2012-present
- Referee, Clinical Cancer Research, 2012-present
- Referee, Molecular Cancer, 2012-present
- Referee, Journal of Thoracic Oncology, 2012-present
- Referee, Lung Cancer, 2012-present
- Referee, Radiation Oncology, 2015-present
Frank S Lieberman MD
- Biomarkers Committee, ECOG-ACRIN, 2012-present
- Experimental Imaging Committee, ECOG-ACRIN, 2013-present
- CNS Tumor Committee, ECOG-ACRIN, 2012-present
- Member, Neurooncology Section, American Academy of Neurology, 1990-present
- Examination Committee, ACNS Neurooncology Board, 2009-present
- Member, Adult Brain Tumor Consortium, 2004-present
- Society for Neurooncology, 1996-present
- American Society of Clinical Oncology, 1996-present
- Program Committee: Conference on Medicine and Religion, March 4-6, 2016

Anna Lokshin PhD
- Advisory Board, Biophysical Inc. (Austin, TX), 2015-2016
- Regular member, CDMRP (DOD/Army) review committee, 2015-2016
- Regular member, K-Awards NIH/NCI Study Section (Sergei Radaev, SRO), 2015-2016
- Ad hoc reviewer, for NIH Special Emphasis Panel ZCA1 SRRB-Y: CANCER PREVENTION RESEARCH SMALL GRANT PROGRAM, 2015-2016
- Ad hoc reviewer, NIH SBIR/STTR panel: Cancer Diagnostic and Treatment, 2015-2016
- Associate Editor, Cancer Biomarkers Journal, 2015-2016
- Editorial Board Member, Editor, Journal of Health & Medical Informatics, 2015-2016
- AACR, 1989-present
- ASCO, 2009-present
- EDRN, 2003-present

Enrico Novelli MD
- Abstract Reviewer, American Society of Hematology Annual Meeting, 2015
- Protocol Review Committee, University of Pittsburgh Cancer Institute, 2008-present
- Ad Hoc Manuscript Reviewer, American Journal of Hematology, 2011-present
- Ad Hoc Manuscript Reviewer, New England Journal of Medicine, 2011-present
- Ad Hoc Manuscript Reviewer, Anemia, 2011-present
- Ad Hoc Manuscript Reviewer, Journal of the American Medical Association, 2011-present
- Ad Hoc Manuscript Reviewer, British Journal of Hematology, 2011-present
- Ad Hoc Manuscript Reviewer, European Journal of Hematology, 2011-present
- Member, AHA Study Section, 2013-present
- Editorial Advisory Board, American Journal of Hematology, 2015-present
- Member, NIH SBIR/STTR Study Section, 2015-present

Solomon Ofori-Acquah PhD
- Member, Ghana Biomedical Convention, 2008-present
- Ad Hoc Grant Review Committee, American Society of Hematology, Minority Medical Student Award, member, 2010-present
- Chair, American Society of Hematology, Minority Graduate Student Abstract Achievement Award Committee, member, 2011-present
- Member, NIH, Respiratory Integrative Biology and Translational (RIBT) Science Study Section, 2013-2019
Rahul A Parikh MD PhD

- Institutional Review Board, Committee G, University of Pittsburgh, 2013-present
- Member, Clinical Translational Research Institute (CTSI), 2013-present
- Ad Hoc Reviewer, Oncology Research, 2013-present
- Ad Hoc Reviewer, Clinical Cancer Research, 2015-present
- Protocol Review Committee B, University of Pittsburgh Cancer Institute, 2011-present

Vida Cecilia Almario Passero MD

- Section Chief, Hematology Oncology, VA Pittsburgh Healthcare System, 2013-present
- Associate Fellowship Program Director, UPP Hematology-Oncology, 2011-present
- Chair, Commission on Cancer Care Committee, VA Pittsburgh Healthcare System, American College of Surgeons, 2011-present
- Oncology Field Advisory Committee, Veterans Health Affairs, High Cost Oncology Drug Workgroup, 2011-present
- Telehealth Champion for Hematology-Oncology, VA Pittsburgh Healthcare System, 2010-present
- Responsible Site Investigator, VA Pittsburgh Healthcare System, National Surgical Adjuvant Breast and Bowel Project (NSABP), 2012-present
- Simulation Training Champion, VA Pittsburgh Healthcare System, 2012-present
- VA Molecular Oncology Subcommittee. Member, generate practice guidelines for VA Health System regarding molecular testing in oncology, December 2014-present
- Session Award, 12th Annual Graduate Colloquium Carlow University, Carlow University, Pittsburgh, PA. “Should VA Healthcare Providers Telecommute?”, April 21, 2016
- Presentation, American Society of Clinical Oncology Program Director’s Meeting, Alexandria, VA. Board prep and our approach to the ASCO and ASH in Training Exams, October 2105
- Recognized Reviewer Status, Clinical Colorectal Cancer, 2016

Shannon Puhalla MD

- Journal Reviewer, ASCO Educational Book, 2015-present
- Scientist Reviewer, Breast Cancer Research Program, Department of Defense Congressionally Directed Medical Research Programs (CDMRP), 2015-present

Margaret V. Ragni MD MPH

- American Society of Hematology (ASH) 1983-present
- ASH Scientific Committee on Hemostasis, 2012-2014, 2014-2018
- Chair, ASH Public Health Task Force, 2010-present
- ASH Hemostasis Subcommittee, 2013-2015
- World Federation of Hemophilia (WFH), 1984-present
- National Hemophilia Foundation (NHF), 1987-present
- NHF Review Committee, Judith Graham Pool Awards, 2001-present
- NHF Medical and Scientific Advisory Committee, 1990-present
- NHF Career Development Awards Committee, 2001-present
- NHF New Research Initiatives and Cure Committee, 2005-present
- NHF, MASAC Advisory Subcommittee on Women & Girls with Blood Disorders, 2009-present
- Chair, NHF Adult Complications of Hemophilia Working Group, 2001-present
- Chair, NHF HCV-HIV Task Force, 2000-present
- Hemostasis & Thrombosis Research Society (HTRS), 1990-present

Department of Medicine http://www.dom.pitt.edu/hemaonc
• Board Member, HTRS, 1990-present
• Co-Chair, HTRS Research Committee, 2010-2016
• ATHN/HTRS Joint Research Committee, 2013-present
• International Society of Hemostasis and Thrombosis (ISTH) 2007-present
• ISTH Scientific Subcommittee, on FVIII, Factor IX, 2014-present
• National Heart Lung Blood Institute (NHLBI), 2002-present
• Rituximab in Hemophilia Inhibitors (RICH) Study Protocol Leadership Committee, 2007-present; Vice Chair, 2005-present
• Mentor, eMentoring Initiative (NHLBI), 2008-present
• Vascular Medicine Institute (VMI), 2008-present
• Scientific Proposal Review Committee (VMI), 2009-present
• Fellow, American College of Physicians, 1985-present
• Advisor and Author, Health Resources and Services Administration (HRSA) 1st HRSA-Approved Use of 340B Funds for Research, 2008-2017
• HRSA Hemophilia Research Funding Proposal and Grant Guidance Committee, 1st HRSA-Approved Use of 340B Funds for Research, 2008-2017
• Editorial Board, Advances in Hematology, 2008-present
• Editorial Board, Haemophilia, 2000-present
• Editorial Board, Journal of Coagulation Disorders, 2009-present
• Editorial Board, Journal of Hematology & Thromboembolic Diseases: Open Access, 2012-present
• Editorial Board, Journal of Rare Disorders, 2012-present
• Associate Editor, Editorial Board, Blood Advances, 2016-present
• Ad Hoc Consultant, Food and Drug Administration (FDA), 2015-present
• Blood Products Advisory Committee (BPAC) FDA, 2014-2017
• BioMarin Advisory Board, AAV-FVIII Gene Therapy, Toronto, October 23-25, 2015
• Baxalta Advisory Board, Von Willebrand Disease., Menorrhagia, and VWDMin Trial, Chicago, IL, October 31, 2015
• American Thrombosis Hemostasis Network DREAM Award Review Committee, 2016
• Murray Thelin Researcher of the Year Award, National Hemophilia Foundation, 2015
• Co-Chair, Inaugural Annual ASH Networking Reception, Women Faculty, 2015, 2016
• Best Doctors in America, Pittsburgh Magazine, May, 2016, 2016
• Medical Student Research Mentoring Merit Award, University of Pittsburgh, 2016

Priya Rastogi MD
• Member, Steering Committee for NCI, MBC Endpoints Working Group, 2016-present

Robert L Redner MD
• Reviewer, NIH Study Section 2016/05 ZHL1 CSR-S (M2), April 2016
• Test Material Development Committee, American Society of Hematology, 2006-present
• Editorial Board, Clinical Medicine: Blood Disorders, 2007-present
• Editorial Board, Leukemia and Lymphoma, 2008-present
• Co-Chair, Myelodysplastic Diseases Center of Excellence, UPCI, 2005-present
• Co-Chair, MDS Clinical Pathways, UPCI, 2006-present
• Director, UPCI Clinical Oncology and Hematology Grand Rounds, 2007-present
John C. Schmitz PhD
- UPCI Protocol Review Committee (PRC), 2015-present
- Coordinator (Poster Session), UPCI Retreat, 2012-present
- Poster Judge, UPCI Summer Academy, 2012-present
- Editorial Board, Oncology Research, 2015-present
- AACR Member, 1991-present

Craig Seaman MD
- International Society on Thrombosis and Hemostasis, 2015-present
- Hemostasis and Thrombosis Research Society, 2013-present
- American Society of Hematology, 2011-present

Warren D. Shlomchik MD PhD
- NIH Peer Review Committee (Study Section), Cancer Immunology and Immunopathology, 2011-present
- American Society of Hematology Scientific Committee on Transplantation Biology, 2013-2016

Roy E. Smith MD
- Central Investigational Review Board, CTEP, 2004-present
- Special Government Employee (SGE) Advisor to Oncology Drug Advisory Committee (ODAC) for FDA, 2008-present
- Chair, CTEP Working Group II Committee for Revision of CTEP on informed consent document, 2015-2016
- UPMC’s Anticoagulation Committee, 2005-present
- Chair, Anticoagulation Committee, 2012-present
- Inaugural Director, American Society of Hematology (ASH) Medical Educators Institute (AMEI), 2014-present
- UPMC Pulmonary Embolus Response Team, 2014-present
- Governance Committee, National Pulmonary Embolus Response Team Consortium, 2014-present
- Coagulation Committee, American Society for Pheresis, 2014-present
- Reviewer, Archives of Internal Medicine, 2015-2016
- Reviewer, OB-GYN, 2015-2016
- Reviewer, Journal of Clinical Oncology, 2015-2016
- Reviewer, Clinical Breast Cancer, 2015-2016
- Reviewer, External Reviewer for CTEP Phase III Trials, 2015-2016
- Editor, Journal of Hematology & Thromboembolic Diseases, 2015-2016
- Editorial Board, General Medicine Journal of OMICS Publishing Group, 2015-2016
- Editorial Board, Journal of Hematology & Thrombosis, 2014-present
- Chair, Anticoagulation Committee, 2012-present
- American Society of Hematology, 1980-present
- American Society of Clinical Oncology, 1979-present
- Associate, Southwest Oncology Group, 1976-present
- Fellow, American College of Physicians, 1980-present
- American Medical Association, 1978-present
- American Society for Apheresis, 1996-present
- Society of Head and Neck Surgeons, 1996-present
- Society for Clinical Trials, 1997-present
- North American Society of Thrombosis and Hemostasis, 2014-present
- Internal Society of Thrombosis and Haemostasis, 2014-present
**Weijing Sun MD**
- Hepatobiliary Task Force Member, GI Steering Committee, NCI, 2008-present
- Member, Core Committee for GI Colon Cancer, ECOG, 2007-present
- Director, Phase II Program of University of Pittsburgh Cancer Institute (UPCI), 2015-2016
- Visiting Professor, Zhejiang Province Cancer Hospital, Zhejiang University, 2012-present
- Visiting Professor, Zhenjiang University, School of Medicine, 2015-present
- Advisory Panel, Guideline on the Evaluation of Molecular Markers for Colorectal Cancer, 2013-present
- Deputy Editor, *Journal of Hematology & Oncology*, 2015-present
- Editorial Board, *Clinical Colorectal Cancer*, 2006-present
- Associate Editor, *Journal of Gastrointestinal Cancer*, 2011-present
- Associate Editor, *Journal of Practical Oncology* (China), 2015-present
- Editorial Board, *Chinese Clinical Oncology*, 2011-present
- Advisory Board, *Journal of Hematology-Oncoology*, 2010-present
- Director, Medical Course, International Society of GI Oncology (ISGIO), 2013-present
- Co-Chair, GI/Surg Onc & Esophageal/Gastric Cancer Data and Safety Monitoring Board, University of Pittsburgh Cancer Institute, 2012-present
- Advisory Panel, guideline on the Evaluation of Molecular Markers for Colorectal Cancer; American Society for Clinical Pathology; College of American Pathologists; Pathology and Laboratory Quality Center and Association for Molecular Pathology, 2013-present

**Ahmad Tarhini MD PhD**
- UPCI Protocol Review Committee (PRC), 2006-present
- University of Pittsburgh Internal Review Board (IRB), 2007-present
- Eastern Cooperative Oncology Group (ECOG) - American College of Radiology Imaging Network (ACRIN), 2007-present
- Melanoma Steering Committee, ECOG-ACRIN, 2007-present
- Immune Strategy Biomarkers Group, ECOG-ACRIN, 2007-present
- Cytokine Working Group (CWG), 2008-present
- Editorial Board, Oncology, 2014-present
- Peer reviewer, *Clinical Cancer Research*, 2013-present
- Peer reviewer, *Cancer*, 2012-present
- Peer reviewer, *British Journal of Dermatology*, 2013-present
- Peer reviewer, *Journal of Immunotherapy*, 2012-present
- Peer reviewer, *Melanoma Research*, 2012-present
- Peer reviewer, *PLOS One*, 2013-present
- Peer reviewer, *Head & Neck*, 2013-present
- Peer reviewer, *Future Oncology*, 2013-present
- Peer reviewer, *Cancer Immunology, Immunotherapy*, 2013-present
- Peer reviewer, *Cancer Immunology Research*, 2014-present
- Peer reviewer, *Journal of Immunotherapy*, 2010-present
- ASCO Cancer Education Committee on the Melanoma/Skin Cancers Track, 2014-present
- Track Leader, ASCO Cancer Education Committee on the Melanoma/Skin Cancers Tracks, 2016-present
- Director of Clinical Sciences, Pennsylvania Phase II Cancer Consortium, 2016-present
- Course Director (CME courses), Society of Immunotherapy of Cancer, 2015-present
Gijsberta van Londen MD MS

- Organizing Committee, Magee Womens Cancers Livewell Survivorship Workshops, 2010-present
- Organizing Committee, UPMC Cancer Center's Annual Conference on Survivorship Issues for Healthcare Providers, 2013-present
- UPMC CancerCenter Cancer Committee, representing cancer survivorship issues, 2012-present
- Patient Reported Outcomes (PRO) Committee, UPMC CancerCenter and Magee Womens Hospital, 2011-present
- EpicCare Electronic Health Record Care Plan Module Committee, national committee facilitating the development of a clinically meaningful care plan model, 2012-present
- Consultant, Gilda's Club, piloting efforts of the LIVESTRONG Cancer Transitions Program, 2012-present
- Grant Reviewer, CMRF, 2012-present
- Reviewer, Journal of Urology, 2012-present
- Medical Director, Women's Cancer LiveWell Survivorship Program, Magee, 2010-present
- Medical Director, Cancer LiveWell Survivorship Program, Hillman Cancer Center and UPMC CancerCenter, 2011-present
- Member, National Surgical Adjuvant Bowel and Breast Project, 2011-present
- Course Director, UPMC Cancer Center Annual Conference about Survivorship Issues for Healthcare Providers, 2013-present
- Co-Chair, Survivorship sub-committee of Magee Women's Hospital's Cancer Survivorship Committee, 2013-present
- Cancer Adjudicator, SWAN Study (Study of women's health across the nation, , 2012-present
- Chair, Pathways Cancer Survivorship Taskforce, 2013-present
- Magee Women's Cancer Center Advocacy Taskforce, 2013-present
- UPMC/American Cancer Society Committee, 2014-present
- Steering Committee, Center for Integrative Medicine, 2014-present
- Council of Our Clubhouse, 2014-present
- Affiliate SWAN study investigator, 2014-present
- ASCO Cancer Survivorship Committee, 2015-present
- ASCO Geriatric Oncology Special Interest Group, 2015-present
- ASCO Cancer Survivorship Guideline Advisory Group, 2016-present

Liza Villaruz MD

- Protocol Review Committee, UPCI, 2009-present
- American Society of Clinical Oncology, 2010-present
- International Association for the Study of Lung Cancer (IASLC), 2014-present
- Reviewer, Lung Cancer, 2011-present
- Reviewer, Oncology Research, 2012-present
- Reviewer, Cancer, 2014-present
- Reviewer, PlosOne, 2015-present
- Session Chair, Drug Resistance, IASLC 16th World Conference on Lung Cancer, 2015-present
- Principal Investigator, Academic Thoracic Oncology Medical Investigators Consortium (ATOMIC), 2014-present
- Clinical Scientist, NCI/CTEP/IDB VX-970 Project Team, 12/2014-present
- National Cancer Institute (NCI) Cancer Clinical Investigator Team Leadership Award, 2015
- Recipient, UPCI Junior Scholar Award, 2015

Lazar Vujanovic PhD

- Recipient, 2015 Developmental Research Project Award—The SPORE in Melanoma & Skin Cancer, University of Pittsburgh Cancer Institute, 2015-2016

Department of Medicine http://www.dom.pitt.edu/hemaonc
Donald V. Woytowitz Jr. MD
- Member, Quality Collaborative: Pre-surgical Anemia Correction, 2015-present
- UPCI Protocol Review Committee (PRC), Committee A, May 2016-present
- Recipient, Alan Winkelstein MD Memorial Fellows Educator of the Year Award, 2015-2016
- American Society of Hematology, 1995-present
- American Society of Clinical Oncology, 1995-present

Hassane Zarour MD
- Co-Leader, Melanoma Program, University of Pittsburgh Cancer Institute, 2013-present
- Co-Director, Cancer Immunotherapy Trial Network, University of Pittsburgh site, 2011-present
- Faculty Appointments and Promotions Committee, Department of Medicine, University of Pittsburgh, 2014-present
- Protocol Review Committee, University of Pittsburgh Cancer Institute, 2004-present
- Interviewer, Hematology-Oncology Fellowship Program, 2006-present
- Internal Advisory Board, Ovarian Cancer SPORE, 2015-present
- Internal Advisory Board, NIBIB Biomedical Technology Resource Center P41, Anderson, C., 2015-present
- T32/T35 Training Grant Advisory Board, University of Pittsburgh School of Medicine, 2015-2016
- Cancer Vaccine Collaborative Group, Cancer Research Institute, New York, NY, 2002-present
- Study Section, ZRG1 OTCX 14, Experimental Therapeutics SBIR, 2012-present
- ZRG1-MOSS-U82 Review Panel, 2016
- Reviewer, Fond de la Recherche Scientifique (FNRS), Belgium, 2013-present
- Ad Hoc Reviewer, Melanoma Research Foundation, 2013-present
- Associate Editor, Journal of Immunology, 2012-present
- Ad Hoc Reviewer, Blood, 2002-present
- Ad Hoc Reviewer, Cancer Immunology Immunotherapy, 2002-present
- Ad Hoc Reviewer, Cancer Research, 2002-present
- Ad Hoc Reviewer, Clinical Cancer Research, 2002-present
- Ad Hoc Reviewer, Human Immunology, 2002-present
- Ad Hoc Reviewer, Journal of Clinical Investigation, 2002-present
- Ad Hoc Reviewer, Journal of Clinical Oncology, 2002-present
- Ad Hoc Reviewer, Journal of Immunology, 2002-present
- Ad Hoc Reviewer, Journal of Immunotherapy, 2002-present
- Ad Hoc Reviewer, Journal of Molecular Medicine, 2002-present
- Ad Hoc Reviewer, Leukemia, 2002-present
- Ad Hoc Reviewer, Melanoma Research, 2002-present
- Ad Hoc Reviewer, Proceedings of the National Academy of Science, 2002-present
- Ad Hoc Reviewer, Science Translational Medicine, 2002-present
- American Association of Immunology (AAI), 2000-present
- Eastern Cooperative Oncology Group (ECOG), 2000-present
- American Association for Cancer Research (AACR), 2000-present
- American Society of Clinical Oncology (ASCO), 2004-present
- International Society for Biological Therapy of Cancer (iSBTc), 2005-present
## GRANTS AND CONTRACTS AWARDED

<table>
<thead>
<tr>
<th>PUBLIC HEALTH SERVICE</th>
<th>DIRECT COSTS</th>
<th>INDIRECT COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPLEMAN, L.</td>
<td>NIH</td>
<td>$60,937</td>
</tr>
<tr>
<td>BAHARY, N</td>
<td>YALE UNIVERSITY/ NCI</td>
<td>$206</td>
</tr>
<tr>
<td>BAHARY, N</td>
<td>NCI</td>
<td>$386</td>
</tr>
<tr>
<td>BAHARY, N</td>
<td>NCI</td>
<td>$2,521</td>
</tr>
<tr>
<td>BAHARY, N</td>
<td>YALE UNIVERSITY/ NIH</td>
<td>$1,024</td>
</tr>
<tr>
<td>BAUMAN, J</td>
<td>NIH</td>
<td>$11,255</td>
</tr>
<tr>
<td>BAUMAN, J</td>
<td>UCSF/ NIDCR</td>
<td>$941</td>
</tr>
<tr>
<td>BAUMAN, J</td>
<td>NIH</td>
<td>$40,265</td>
</tr>
<tr>
<td>BAUMAN, J</td>
<td>NIH</td>
<td>$22,509</td>
</tr>
<tr>
<td>BAUMAN, J</td>
<td>NIDCR</td>
<td>$5,706</td>
</tr>
<tr>
<td>BOYIADZIS, M</td>
<td>UNIV OF WASH/ NHLBI</td>
<td>$5,045</td>
</tr>
<tr>
<td>BOYIADZIS, M</td>
<td>NIH</td>
<td>$84,803</td>
</tr>
<tr>
<td>BOYIADZIS, M</td>
<td>NCI</td>
<td>$2,859</td>
</tr>
<tr>
<td>BRUFSKY, A</td>
<td>NIH</td>
<td>$127,135</td>
</tr>
<tr>
<td>BRUFSKY, A</td>
<td>NCI</td>
<td>$265,625</td>
</tr>
<tr>
<td>BRUFSKY, A</td>
<td>NCI</td>
<td>$12,556</td>
</tr>
<tr>
<td>BRUFSKY, A</td>
<td>NCI</td>
<td>$253,033</td>
</tr>
<tr>
<td>BRUFSKY, A</td>
<td>NLM</td>
<td>$18,033</td>
</tr>
<tr>
<td>BRUFSKY, A</td>
<td>NIH</td>
<td>$4,095</td>
</tr>
<tr>
<td>Name</td>
<td>Project Description</td>
<td>Funding Agency</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------------------------------------------------------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>BRUFSKY, A</td>
<td>Mobilization of a unique co-regulatory mechanism between autophagy and apoptosis for breast cancer therapy</td>
<td>NCI</td>
</tr>
<tr>
<td>BRUFSKY, A</td>
<td>CCSG PRMS</td>
<td>NCI</td>
</tr>
<tr>
<td>BRUFSKY, A</td>
<td>CCSG IDS</td>
<td>NCI</td>
</tr>
<tr>
<td>BRUFSKY, A</td>
<td>CCSG PSRS</td>
<td>NCI</td>
</tr>
<tr>
<td>BRUFSKY, A</td>
<td>CCSG CRS</td>
<td>NCI</td>
</tr>
<tr>
<td>BURNS, T</td>
<td>Lung Spore - Project 4</td>
<td>NCI</td>
</tr>
<tr>
<td>BURNS, T</td>
<td>Lung Spore - DRP</td>
<td>NCI</td>
</tr>
<tr>
<td>BURNS, T</td>
<td>Molecular determinants in autophagic repression of intrinsic apoptosis</td>
<td>NCI</td>
</tr>
<tr>
<td>BUTTERFIELD, L</td>
<td>Spore in Skin Cancer Core B TB</td>
<td>NIH</td>
</tr>
<tr>
<td>BUTTERFIELD, L</td>
<td>Spore in Skin Cancer Project 2</td>
<td>NIH</td>
</tr>
<tr>
<td>BUTTERFIELD, L</td>
<td>CCSG - Year 27 (Renewal) - IMCPL IML</td>
<td>NIH</td>
</tr>
<tr>
<td>BUTTERFIELD, L</td>
<td>CCSG - Year 27 (Renewal) - IMCPL CPL</td>
<td>NIH</td>
</tr>
<tr>
<td>BUTTERFIELD, L</td>
<td>PKPD-NCI ET-CTN BUTTERFIELD</td>
<td>NCI</td>
</tr>
<tr>
<td>BUTTERFIELD, L</td>
<td>Spore in Skin Cancer Core B CPL</td>
<td>NIH</td>
</tr>
<tr>
<td>BUTTERFIELD, L</td>
<td>ECOG-ACRIN NCTN Operations Center Grant (ACRIN 6685)</td>
<td>EAMRF/ NCI</td>
</tr>
<tr>
<td>BUTTERFIELD, L</td>
<td>Clinical manufacturing and toxicology testing of an adenoviral-based RSV vaccine</td>
<td>NIAID</td>
</tr>
<tr>
<td>BUTTERFIELD, L</td>
<td>RPCI/UPCI ovarian spore - immunomonitoring core</td>
<td>RPCI/ NIH</td>
</tr>
<tr>
<td>BUTTERFIELD, L</td>
<td>NCI NCTN-Network Lead Academic Site</td>
<td>NIH</td>
</tr>
<tr>
<td>BUTTERFIELD, L</td>
<td>Peptide vaccine immunotherapy for children with recurrent low-grade astrocytomas</td>
<td>NCI</td>
</tr>
<tr>
<td>BUTTERFIELD, L</td>
<td>ECOG-ACRIN Operations Center (ACRIN 6685)</td>
<td>EAMRF/ NCI</td>
</tr>
<tr>
<td>BUTTERFIELD, L</td>
<td>Multiple tumor antigen-loaded DC vaccine for hepatocellular cancer</td>
<td>NIH</td>
</tr>
</tbody>
</table>

Department of Medicine [http://www.dom.pitt.edu/hemaonc](http://www.dom.pitt.edu/hemaonc)
<table>
<thead>
<tr>
<th>LAST NAME</th>
<th>FIRST NAME</th>
<th>TITLE</th>
<th>INSTITUTION</th>
<th>DIRECT COSTS</th>
<th>INDIRECT COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUTTERFIELD, L</td>
<td>DIRECTING TUMOR-SPECIFIC T CELLS TO TUMORS - CORE C-2</td>
<td>PEPTIDE VACCINE IMMUNOTHERAPY FOR CHILDREN WITH RECURRENT LOW-GRADE ASTROCYTOMAS</td>
<td>NCI</td>
<td>$5,099</td>
<td>$2,754</td>
</tr>
<tr>
<td>BUTTERFIELD, L</td>
<td>CCSG IMCPL CPL</td>
<td>CCSG IMCPL IML</td>
<td>NCI</td>
<td>$12,945</td>
<td>$6,667</td>
</tr>
<tr>
<td>BUTTERFIELD, L</td>
<td>CCSG IMCPL CPL</td>
<td>CCSG IMCPL IML</td>
<td>NCI</td>
<td>$3,872</td>
<td>$1,994</td>
</tr>
<tr>
<td>BUTTERFIELD, L</td>
<td>DIRECTING TUMOR-SPECIFIC T CELLS TO TUMORS - CORE C-2</td>
<td>PEPTIDE VACCINE IMMUNOTHERAPY FOR CHILDREN WITH RECURRENT EPENDYMOMAS</td>
<td>NCI</td>
<td>$15,445</td>
<td>$7,954</td>
</tr>
<tr>
<td>BUTTERFIELD, L</td>
<td>NCI-NCTN-NETWORK LEAD ACADEMIC SITE</td>
<td>NCI</td>
<td>$21,062</td>
<td>$11,373</td>
<td></td>
</tr>
<tr>
<td>BUTTERFIELD, L</td>
<td>NCI ET-CTN WITH PHASE I EMPHASIS AT UPCI</td>
<td>NCI</td>
<td>$6,714</td>
<td>$3,626</td>
<td></td>
</tr>
<tr>
<td>BUTTERFIELD, L</td>
<td>NCI ET-CTN WITH PHASE I EMPHASIS AT UPCI-TSPD</td>
<td>NCI</td>
<td>$10,462</td>
<td>$5,649</td>
<td></td>
</tr>
<tr>
<td>CHU, E</td>
<td>CHINESE HERBAL MEDICINE AS A NOVEL PARADIGM FOR CANCER CHEMOTHERAPY PROJECT 1</td>
<td>CHINESE HERBAL MEDICINE AS A NOVEL PARADIGM FOR CANCER CHEMOTHERAPY PROJECT 1</td>
<td>NCI</td>
<td>$23,014</td>
<td>$12,427</td>
</tr>
<tr>
<td>CHU, E</td>
<td>CHINESE HERBAL MEDICINE AS A NOVEL PARADIGM FOR CANCER CHEMOTHERAPY CORE A</td>
<td>CHINESE HERBAL MEDICINE AS A NOVEL PARADIGM FOR CANCER CHEMOTHERAPY CORE A</td>
<td>NCI</td>
<td>$25,631</td>
<td>$13,841</td>
</tr>
<tr>
<td>CHU, E</td>
<td>CHINESE HERBAL MEDICINE AS A NOVEL PARADIGM FOR CANCER CHEMOTHERAPY CORE A</td>
<td>CHINESE HERBAL MEDICINE AS A NOVEL PARADIGM FOR CANCER CHEMOTHERAPY CORE A</td>
<td>NCI</td>
<td>$22,771</td>
<td>$12,296</td>
</tr>
<tr>
<td>CHU, E</td>
<td>CHINESE HERBAL MEDICINE AS A NOVEL PARADIGM FOR CANCER CHEMOTHERAPY CORE A</td>
<td>CHINESE HERBAL MEDICINE AS A NOVEL PARADIGM FOR CANCER CHEMOTHERAPY CORE A</td>
<td>NCI</td>
<td>$20,000</td>
<td>$10,800</td>
</tr>
<tr>
<td>CHU, E</td>
<td>ETCTN PHASE II UM1</td>
<td>ETCTN PHASE II UM1</td>
<td>NCI</td>
<td>$235,333</td>
<td>$55,721</td>
</tr>
<tr>
<td>CHU, E</td>
<td>NCI ET-CTN WITH PHASE I EMPHASIS AT UPCI- CTC</td>
<td>NCI</td>
<td>$44,123</td>
<td>$23,826</td>
<td></td>
</tr>
<tr>
<td>CHU, E</td>
<td>TRAINING IN CANCER THERAPEUTICS RESEARCH</td>
<td>NCI</td>
<td>$115,808</td>
<td>$8,697</td>
<td></td>
</tr>
</tbody>
</table>

http://www.dom.pitt.edu/hemaonc
<table>
<thead>
<tr>
<th>Name</th>
<th>Project Description</th>
<th>Agency</th>
<th>DIRECT COSTS</th>
<th>INDIRECT COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHU, E</td>
<td>NCI ET-CTN WITH PHASE I EMPHASIS AT UPCI</td>
<td>NIH</td>
<td>$3,642</td>
<td>$1,967</td>
</tr>
<tr>
<td>CHU, E</td>
<td>NCI ET-CTN WITH PHASE I EMPHASIS AT UPCI</td>
<td>NIH</td>
<td>$10,000</td>
<td>$5,400</td>
</tr>
<tr>
<td>DAVIDSON, N</td>
<td>CCSG - IVIF MRI FACILITY</td>
<td>NCI</td>
<td>$22,512</td>
<td>$12,156</td>
</tr>
<tr>
<td>DAVIDSON, N</td>
<td>CCSG - PP&amp;E</td>
<td>NCI</td>
<td>$74,708</td>
<td>$40,343</td>
</tr>
<tr>
<td>DAVIDSON, N</td>
<td>CCSG - DEVELOPMENT</td>
<td>NCI</td>
<td>$336,285</td>
<td>$181,594</td>
</tr>
<tr>
<td>DAVIDSON, N</td>
<td>CCSG - ADMIN</td>
<td>NIH</td>
<td>$475,789</td>
<td>$256,927</td>
</tr>
<tr>
<td>DAVIDSON, N</td>
<td>NCI-NCTN-NETWORK LEAD ACADEMIC SITE</td>
<td>NCI</td>
<td>$7,453</td>
<td>$4,025</td>
</tr>
<tr>
<td>DAVIDSON, N</td>
<td>CCSG - TOBACCO SUPPLEMENT</td>
<td>NCI</td>
<td>$309</td>
<td>$167</td>
</tr>
<tr>
<td>DAVIDSON, N</td>
<td>CCSG CBS UPCI</td>
<td>NCI</td>
<td>$8,544</td>
<td>$4,400</td>
</tr>
<tr>
<td>DAVIDSON, N</td>
<td>CCSG - PROGRAM LEADERS</td>
<td>NCI</td>
<td>$197,111</td>
<td>$106,440</td>
</tr>
<tr>
<td>DAVIDSON, N</td>
<td>NCTN-NLPS DAVIDSON</td>
<td>NCI</td>
<td>$3,752</td>
<td>$2,026</td>
</tr>
<tr>
<td>DAVIDSON, N</td>
<td>CCSG TOBACCO SUPP</td>
<td>NCI</td>
<td>$1</td>
<td>$0</td>
</tr>
<tr>
<td>DAVIDSON, N</td>
<td>CCSG PROGRAM LEADERS</td>
<td>NCI</td>
<td>$16,448</td>
<td>$8,471</td>
</tr>
<tr>
<td>DAVIDSON, N</td>
<td>CCSG ADMINISTRATION</td>
<td>NCI</td>
<td>$18,185</td>
<td>$9,365</td>
</tr>
<tr>
<td>DAVIDSON, N</td>
<td>CCSG SENIOR LEADERS</td>
<td>NCI</td>
<td>$24,383</td>
<td>$12,557</td>
</tr>
<tr>
<td>DAVIDSON, N</td>
<td>CCSG DEVELOPMENT</td>
<td>NIH</td>
<td>$2,161</td>
<td>$1,113</td>
</tr>
<tr>
<td>DONNENBERG, A</td>
<td>MICRO-SCALE ANALYSIS OF MESENCHYMAL TO EPITHELIAL TRANSITION IN LUNG CANCER</td>
<td>NIH</td>
<td>$134,566</td>
<td>$32,692</td>
</tr>
<tr>
<td>DONNENBERG, A</td>
<td>INJECTABLE ENGINEERED TISSUE FOR CANCER RECONSTRUCTION</td>
<td>NCI</td>
<td>$23,295</td>
<td>$12,578</td>
</tr>
<tr>
<td>DONNENBERG, A</td>
<td>CCSG - CYT FLOW FACILITY</td>
<td>NCI</td>
<td>$104,077</td>
<td>$56,202</td>
</tr>
<tr>
<td>DONNENBERG, A</td>
<td>ESTABLISHING A RESOURCE CENTER FOR TISSUE ENGINEERED CRANIOFACIAL TECHNOLOGIES</td>
<td>NIDCR</td>
<td>$18,758</td>
<td>$10,129</td>
</tr>
<tr>
<td>DONNENBERG, A</td>
<td>CCSG CYT FLOW FACILITY</td>
<td>NCI</td>
<td>$6,302</td>
<td>$3,403</td>
</tr>
<tr>
<td>DONNENBERG, V</td>
<td>MICRO-SCALE ANALYSIS OF MESENCHYMAL TO EPITHELIAL TRANSITION IN LUNG CANCER</td>
<td>NIH</td>
<td>$10,467</td>
<td>$5,652</td>
</tr>
<tr>
<td>DONNENBERG, V</td>
<td>ENGINEERED NEOVASCULARIZATION OF VASA VASORUM</td>
<td>NHLBI</td>
<td>$6,278</td>
<td>$3,390</td>
</tr>
<tr>
<td>DONNENBERG, V</td>
<td>INJECTABLE ENGINEERED TISSUE FOR CANCER RECONSTRUCTION</td>
<td>NCI</td>
<td>$275,494</td>
<td>$132,370</td>
</tr>
<tr>
<td>GALSON, D</td>
<td>VIRAL AND GENETIC REGULATION OF ABNORMAL OCL ACTIVITY IN PAGET'S DISEASE</td>
<td>NIH</td>
<td>$8,185</td>
<td>$4,907</td>
</tr>
<tr>
<td>Name</td>
<td>Project Description</td>
<td>Agency</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------------------------------------------------------------------------------</td>
<td>----------</td>
<td>--------------</td>
<td>----------------</td>
</tr>
<tr>
<td>HERMAN, J</td>
<td>CCSG - DEVELOPMENT - HERMAN</td>
<td>NIH</td>
<td>$5,513</td>
<td>$2,839</td>
</tr>
<tr>
<td>HERMAN, J</td>
<td>LUNG SPORE - MASTER (CORE A)</td>
<td>NIH</td>
<td>$12,447</td>
<td>$5,280</td>
</tr>
<tr>
<td>HERMAN, J</td>
<td>SPORE IN LUNG CANCER - PROJECT 3 JH</td>
<td>NCI</td>
<td>$41,637</td>
<td>$21,443</td>
</tr>
<tr>
<td>HERMAN, J</td>
<td>CCSG - DEVELOPMENT</td>
<td>NCI</td>
<td>$62,863</td>
<td>$33,946</td>
</tr>
<tr>
<td>HERMAN, J</td>
<td>LUNG SPORE - MASTER (CORE A)</td>
<td>NIH</td>
<td>$76,113</td>
<td>$31,193</td>
</tr>
<tr>
<td>JANKOWITZ, R</td>
<td>QUANTITATIVE ASSESSMENT OF BREAST MRIs FOR BREAST CANCER RISK PREDICTION</td>
<td>NCI</td>
<td>$7,368</td>
<td>$3,979</td>
</tr>
<tr>
<td>KIRKWOOD, J</td>
<td>TRAINING PROGRAM IN SKIN BIOLOGY AND CANCER</td>
<td>NIH</td>
<td>$26,189</td>
<td>$1,930</td>
</tr>
<tr>
<td>KIRKWOOD, J</td>
<td>ECOG-ACRIN NETWORK GROUP OPERATIONS CENTER - MELANOMA COMMITTEE</td>
<td>EAMRF/ NCI</td>
<td>$10,121</td>
<td>$1,215</td>
</tr>
<tr>
<td>KIRKWOOD, J</td>
<td>VALIDATION OF GENOMIC TARGETS IN MELANOMA</td>
<td>CPMCR/ NCI</td>
<td>$5,628</td>
<td>$2,898</td>
</tr>
<tr>
<td>KIRKWOOD, J</td>
<td>CANCER DEEP PHENOTYPE EXTRACTION FROM ELECTRONIC MEDICAL RECORDS</td>
<td>NCI</td>
<td>$1,907</td>
<td>$1,030</td>
</tr>
<tr>
<td>KIRKWOOD, J</td>
<td>ECOG-ACRIN NETWORK GROUP OPERATIONS CENTER - MELANOMA COMMITTEE</td>
<td>EAMRF/ NCI</td>
<td>$5,060</td>
<td>$608</td>
</tr>
<tr>
<td>KIRKWOOD, J</td>
<td>NCI-NCTN-NETWORK LEAD ACADEMIC SITE</td>
<td>NCI</td>
<td>$15,006</td>
<td>$8,104</td>
</tr>
<tr>
<td>KIRKWOOD, J</td>
<td>SKIN SPORE - PROJECT 3</td>
<td>NIH</td>
<td>$11,255</td>
<td>$6,078</td>
</tr>
<tr>
<td>KIRKWOOD, J</td>
<td>REVERSING MELANOMA-INDUCED T CELL DYSFUNCTION</td>
<td>NCI</td>
<td>$3,380</td>
<td>$1,741</td>
</tr>
<tr>
<td>KIRKWOOD, J</td>
<td>PILOT CLINICAL-PATHOLOGICAL AND MOLECULAR ANALYSIS OF ATYPICAL NEVI IN RESPONSE TO BSE-L-SULFORAPHANE</td>
<td>NCI</td>
<td>$19,483</td>
<td>$10,521</td>
</tr>
<tr>
<td>KIRKWOOD, J</td>
<td>SPORE IN SKIN CANCER CORE A</td>
<td>NIH</td>
<td>$221,343</td>
<td>$119,526</td>
</tr>
<tr>
<td>KIRKWOOD, J</td>
<td>TRAINING PROGRAM IN SKIN BIOLOGY AND CANCER</td>
<td>NIH</td>
<td>$285,270</td>
<td>$20,328</td>
</tr>
<tr>
<td>KIRKWOOD, J</td>
<td>CANCER DEEP PHENOTYPE EXTRACTION FROM ELECTRONIC MEDICAL RECORDS</td>
<td>NCI</td>
<td>$9,384</td>
<td>$5,068</td>
</tr>
<tr>
<td>KIRKWOOD, J</td>
<td>NCI-NCTN-NETWORK LEAD ACADEMIC SITE</td>
<td>NCI</td>
<td>$29,815</td>
<td>$16,099</td>
</tr>
<tr>
<td>KIRKWOOD, J</td>
<td>SPORE IN SKIN CANCER PROJ 2</td>
<td>NIH</td>
<td>$11,255</td>
<td>$6,078</td>
</tr>
<tr>
<td>LEE, J</td>
<td>CCSG - EPCRS</td>
<td>NCI</td>
<td>$54,940</td>
<td>$29,668</td>
</tr>
<tr>
<td>LEVINA, V</td>
<td>SPORE IN LUNG CANCER - CEP</td>
<td>NCI</td>
<td>$20,833</td>
<td>$10,654</td>
</tr>
<tr>
<td>LEVINA, V</td>
<td>LUNG SPORE - CDP</td>
<td>NCI</td>
<td>$10,001</td>
<td>$5,149</td>
</tr>
<tr>
<td>Name</td>
<td>Project Description</td>
<td>Funding Source</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>---------------</td>
<td>--------------------------------------------------------------------------------------</td>
<td>------------------------</td>
<td>--------------</td>
<td>----------------</td>
</tr>
<tr>
<td>LOKSHIN, A</td>
<td>Serum and Urine Biomarkers for Screening and Diagnosis of Ovarian Cancer</td>
<td>NCI</td>
<td>$48,229</td>
<td>$24,838</td>
</tr>
<tr>
<td>LOKSHIN, A</td>
<td>CCSG - CPF Luminex</td>
<td>NCI</td>
<td>$17,950</td>
<td>$9,693</td>
</tr>
<tr>
<td>LOKSHIN, A</td>
<td>Biomarker Validation for Intraductal Papillary Mucinous Neoplasms of the Pancreas</td>
<td>NCI</td>
<td>$1,600</td>
<td>$824</td>
</tr>
<tr>
<td>LOKSHIN, A</td>
<td>Validation of Early Pancreatic Cancer Biomarkers in Large Prospective Cohorts</td>
<td>NCI</td>
<td>$343,694</td>
<td>$136,321</td>
</tr>
<tr>
<td>LOW, C</td>
<td>Internet Support Groups: Isolating and Improving Pathways Towards Mental Health</td>
<td>CMU/ NIMH</td>
<td>$4,142</td>
<td>$2,236</td>
</tr>
<tr>
<td>LOW, C</td>
<td>CCSG - DEV Funds (Low)</td>
<td>NCI</td>
<td>$42,575</td>
<td>$22,990</td>
</tr>
<tr>
<td>LOW, C</td>
<td>Adherence to the HCT Medical Regimen: Influence of Cancer Patient-Caregiver Dyads</td>
<td>NCI</td>
<td>$4,256</td>
<td>$2,192</td>
</tr>
<tr>
<td>POSLUSZNY, D</td>
<td>Zimmerman Program for the Molecular and Clinical Biology of VWD</td>
<td>Medical College of Wisconsin / NHLBI</td>
<td>$18,759</td>
<td>$10,130</td>
</tr>
<tr>
<td>RAGNI, MARGARET</td>
<td>Feasibility of the Von Willebrand Disease Minimize Trial</td>
<td>NHLBI</td>
<td>$133,528</td>
<td>$65,765</td>
</tr>
<tr>
<td>RAGNI, MARGARET</td>
<td>Comparative Effectiveness in the Diagnosis of VWD</td>
<td>Blood Center of Wisconsin/ NIH</td>
<td>$12,126</td>
<td>$1,684</td>
</tr>
<tr>
<td>RAGNI, MARGARET</td>
<td>Training Students in Biomedical Research in Hematology</td>
<td>NHLBI</td>
<td>$14,100</td>
<td>$1,269</td>
</tr>
<tr>
<td>RASTOGI, P</td>
<td>NRG Oncology Foundation, Inc.</td>
<td>NRG Onc Fnd/ NIH</td>
<td>$82,623</td>
<td>$44,617</td>
</tr>
<tr>
<td>RASTOGI, P</td>
<td>UP-Industrial-01</td>
<td>NSABP Fnd/ NIH</td>
<td>$34,340</td>
<td>$8,585</td>
</tr>
<tr>
<td>RASTOGI, P</td>
<td>NRG Oncology Foundation, Inc.</td>
<td>NRG Onc Fnd/ NCI</td>
<td>$41,899</td>
<td>$22,625</td>
</tr>
<tr>
<td>RASTOGI, P</td>
<td>UP-Industrial-01</td>
<td>NSABP Fnd/ NIH</td>
<td>$24,158</td>
<td>$6,040</td>
</tr>
<tr>
<td>ROBERTSON, L</td>
<td>Accountability for Cancer Care Through Undoing Racism and Equity ACCURE</td>
<td>UNC / NCI</td>
<td>$48,365</td>
<td>$24,908</td>
</tr>
<tr>
<td>ROBERTSON, L</td>
<td>Accountability for Cancer Care Through Undoing Racism and Equity (ACCURE)</td>
<td>UNC / NCI</td>
<td>$14,886</td>
<td>$7,666</td>
</tr>
<tr>
<td>Name</td>
<td>Project Description</td>
<td>Funders</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------------------------------------------------------------------------------</td>
<td>-----------------------------</td>
<td>--------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Robertson, L</td>
<td>Patient navigation through educational programs and screenings primarily in underserved communities (SAP#440)</td>
<td>Commonwealth of PA/CDC</td>
<td>$22,162</td>
<td>$3,989</td>
</tr>
<tr>
<td>Schmitz, J</td>
<td>NCI ET-CTN with phase I emphasis at UPCI- PKPD</td>
<td>NCI</td>
<td>$20,873</td>
<td>$11,271</td>
</tr>
<tr>
<td>Schmitz, J</td>
<td>CCGP - CPPF Schmitz</td>
<td>NCI</td>
<td>$70,919</td>
<td>$38,297</td>
</tr>
<tr>
<td>Schmitz, J</td>
<td>NCI ET-CTN with phase I emphasis at UPCI</td>
<td>NIH</td>
<td>$10,701</td>
<td>$5,779</td>
</tr>
<tr>
<td>Schmitz, J</td>
<td>DNA BRCA1+Schmitz</td>
<td>NCI</td>
<td>$1,510</td>
<td>$816</td>
</tr>
<tr>
<td>Schmitz, J</td>
<td>CCGP - Development - Schmitz</td>
<td>NCI</td>
<td>$721</td>
<td>$371</td>
</tr>
<tr>
<td>Shlomchik, W</td>
<td>NAIve T Cell Depletion to prevent Graft-Versus-Host Disease</td>
<td>FHCRC/ NHLBI</td>
<td>$4,889</td>
<td>$2,640</td>
</tr>
<tr>
<td>Shlomchik, W</td>
<td>Role of tissue antigen presenting cells in GVHD</td>
<td>NHLBI</td>
<td>$246,250</td>
<td>$132,975</td>
</tr>
<tr>
<td>Shlomchik, W</td>
<td>NAIve T Cell Depletion to prevent Graft-Versus-Host Disease</td>
<td>FHCRC</td>
<td>$49,848</td>
<td>$26,918</td>
</tr>
<tr>
<td>Shlomchik, W</td>
<td>GVL Resistance: Immune selection, T cell ignorance &amp; T cell exhaustion</td>
<td>NHLBI</td>
<td>$454,286</td>
<td>$244,389</td>
</tr>
<tr>
<td>Shlomchik, W</td>
<td>Transfusion of donor effector Memory T Cells for GVL and Immune Reconstitution</td>
<td>NHLBI</td>
<td>$228,243</td>
<td>$123,251</td>
</tr>
<tr>
<td>Shlomchik, W</td>
<td>NAIve T Cell Depletion to prevent Graft-Versus-Host Disease</td>
<td>FRED HUTHINSON CANCER/ NHLBI</td>
<td>$51,803</td>
<td>$27,973</td>
</tr>
<tr>
<td>Steinman, R</td>
<td>Exosomal Recombinase-A tool to dissect metastasis and the cancer microenvironment</td>
<td>NCI</td>
<td>$23,167</td>
<td>$12,510</td>
</tr>
<tr>
<td>Steinman, R</td>
<td>Cell-Specific Transcription in Cancer Microenvironment in vitro and in vivo</td>
<td>NCI</td>
<td>$160,753</td>
<td>$86,807</td>
</tr>
<tr>
<td>Steinman, R</td>
<td>Cell-Specific Transcription in Cancer Microenvironment in vitro and in vivo</td>
<td>NIH</td>
<td>$32,471</td>
<td>$17,534</td>
</tr>
<tr>
<td>Tarhini, A</td>
<td>Photoacoustic detection, Capture and Analysis of circulating melanoma cells</td>
<td>DUQ UNIV/ NCI</td>
<td>$11,880</td>
<td>$6,415</td>
</tr>
<tr>
<td>Tarhini, A</td>
<td>Lung Spore - Core B-3</td>
<td>NIH</td>
<td>$4,690</td>
<td>$2,415</td>
</tr>
<tr>
<td>Tarhini, A</td>
<td>Combinational Immunotherapy targeting the melanoma-associated vasculature</td>
<td>NIH</td>
<td>$33,679</td>
<td>$18,187</td>
</tr>
<tr>
<td>Tarhini, A</td>
<td>Spore in Skin Cancer Proj 1</td>
<td>NIH</td>
<td>$173,246</td>
<td>$93,553</td>
</tr>
<tr>
<td>Name</td>
<td>Project Description</td>
<td>Source</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>-----------------</td>
<td>--------------------------------------------------------------</td>
<td>------------------------------</td>
<td>--------------</td>
<td>----------------</td>
</tr>
<tr>
<td>TARHINI, A</td>
<td>LUNG SPORE - CORE B-3</td>
<td>NCI</td>
<td>$932</td>
<td>$480</td>
</tr>
<tr>
<td>VAN LONDEN, G</td>
<td>A PROSPECTIVE STUDY OF THE IMPACT OF BREAST CANCER ON SYMPTOMS AND FUNCTIONING</td>
<td>WAKE FOREST UNIV/NIH</td>
<td>$1,791</td>
<td>$967</td>
</tr>
<tr>
<td>VILLARUZ, L</td>
<td>CCGS - CCITLA SUPPLEMENT</td>
<td>NCI</td>
<td>$35,714</td>
<td>$19,286</td>
</tr>
<tr>
<td>VUJANOVIC, L</td>
<td>SPORE IN SKIN CANCER DRP</td>
<td>NCI</td>
<td>$15,000</td>
<td>$8,100</td>
</tr>
<tr>
<td>ZAROUR, H</td>
<td>SPORE IN SKIN CANCER PROJECT 3</td>
<td>NCI</td>
<td>$164,312</td>
<td>$88,728</td>
</tr>
<tr>
<td>ZAROUR, H</td>
<td>REVERSING MELANOMA-INDUCED T CELL DYSFUNCTION</td>
<td>NCI</td>
<td>$189,136</td>
<td>$97,405</td>
</tr>
<tr>
<td>ZAROUR, H</td>
<td>SPORE IN SKIN CANCER CORE A</td>
<td>NCI</td>
<td>$11,255</td>
<td>$6,078</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL PUBLIC HEALTH SERVICE</strong></td>
<td></td>
<td><strong>$8,349,099</strong></td>
<td><strong>$4,003,364</strong></td>
</tr>
</tbody>
</table>

**FEDERAL**

<table>
<thead>
<tr>
<th>Name</th>
<th>Project Description</th>
<th>Source</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>BURNS, T</td>
<td>A NOVEL APPROACH TO CO-TARGET KRAS AND YAP IN KRAS-DRIVEN NSCLC</td>
<td>US ARMY</td>
<td>$41,311</td>
<td>$22,308</td>
</tr>
<tr>
<td>DAVIDSON, N</td>
<td>TARGETING HISTONE ABNORMALITY IN TRIPLE NEGATIVE BREAST CANCER</td>
<td>US ARMY</td>
<td>$111,170</td>
<td>$60,033</td>
</tr>
<tr>
<td>DONNENBERG, A</td>
<td>AFIRM CLINICAL Y3</td>
<td>WAKE FOREST/ DOD</td>
<td>$2,948</td>
<td>$1,519</td>
</tr>
<tr>
<td>DONNENBERG, A</td>
<td>THE ROLE OF TUMOR-ASSOCIATED MACROPHAGES IN PROMOTING THE EPITHELIAL TO MESENCHYMAL TRANSITION IN BREAST CANCER</td>
<td>US ARMY</td>
<td>$4,581</td>
<td>$2,473</td>
</tr>
<tr>
<td>DONNENBERG, A</td>
<td>AUTOLOGOUS FAT GRAFTING FOR TREATING PAIN AT AMPUTATION SITE: A PROSPECTIVE RANDOMIZED TRIAL</td>
<td>US ARMY</td>
<td>$12,528</td>
<td>$6,692</td>
</tr>
<tr>
<td>DONNENBERG, A</td>
<td>STRUCTURAL FAT GRAFTING FOR CRANIOFACIAL TRAUMA - JPR</td>
<td>US ARMY</td>
<td>$16,690</td>
<td>$8,595</td>
</tr>
<tr>
<td>DONNENBERG, V</td>
<td>THE ROLE OF TUMOR-ASSOCIATED MACROPHAGES IN PROMOTING THE EPITHELIAL TO MESENCHYMAL TRANSITION IN BREAST CANCER</td>
<td>US ARMY</td>
<td>$65,741</td>
<td>$18,915</td>
</tr>
<tr>
<td>DONNENBERG, V</td>
<td>AUTOLOGOUS FAT GRAFTING FOR TREATING PAIN AT AMPUTATION SITE: A PROSPECTIVE RANDOMIZED TRIAL</td>
<td>US ARMY</td>
<td>$759</td>
<td>$401</td>
</tr>
<tr>
<td>DONNENBERG, V</td>
<td>AFIRM CLINICAL Y3</td>
<td>WAKE FOREST/ DOD</td>
<td>$385</td>
<td>$198</td>
</tr>
<tr>
<td>Project</td>
<td>Description</td>
<td>Funding Agency</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
<td>----------------</td>
<td>--------------</td>
<td>----------------</td>
</tr>
<tr>
<td>FOURCADE, J</td>
<td>ROLE OF THE INHIBITORY RECEPTOR TIGIT IN THE REGULATIONS OF CD4+ TREGS IN PATIENTS WITH ADVANCED MELANOMA</td>
<td>US ARMY</td>
<td>$88,211</td>
<td>$47,634</td>
</tr>
<tr>
<td>HERMAN, J</td>
<td>ADVANCED LUNG CANCER SCREENING: AN INDIVIDUALIZED MOLECULAR NANOTECHNOLOGY APPROACH</td>
<td>US ARMY</td>
<td>$102,457</td>
<td>$39,487</td>
</tr>
<tr>
<td>LEVINA, V</td>
<td>A ROLE OF PLASMINOGEN IN PROMOTING THE IMMUNE ESCAPE IN SMALL CELL LUNG CANCER</td>
<td>US ARMY</td>
<td>$83,333</td>
<td>$45,000</td>
</tr>
<tr>
<td>STEINMAN, R</td>
<td>REAL-TIME VISUALIZATION AND MANIPULATION OF THE METASTATIC TRAJECTORY OF BREAST CANCER CELLS</td>
<td>US ARMY</td>
<td>$136,360</td>
<td>$73,634</td>
</tr>
<tr>
<td><strong>TOTAL FEDERAL</strong></td>
<td></td>
<td></td>
<td><strong>$666,474</strong></td>
<td><strong>$326,889</strong></td>
</tr>
</tbody>
</table>

| VETERANS ADMINISTRATION | | | | |
| LOKSHIN, A | ASSAY KITS AND DATA ANALYSIS OF SAMPLES, LUMINEX LABORATORY | US DEPT VET AFFAIRS | $9,004 | $0 |
| **TOTAL VETERANS ADMINISTRATION** | | | **$9,004** | **$0** |

| STATE | | | | |
| BUTTERFIELD, L | TOBACCO YR 12 - BUTTERFIELD - PROJ 10 | PA COMM | $55,171 | $11,034 |
| CHU, E | TOBACCO PHASE 14 - CHU | PA COMM | $148,906 | $29,781 |
| HERMAN, J | BIG DATA FOR BETTER HEALTH (BD4BH) IN PENNSYLVANIA | COMMONWEALTH OF PA | $84,225 | $16,846 |
| HERMAN, J | TOBACCO PHASE 14 - HERMAN | PA COMM | $118,002 | $23,601 |
| HERMAN, J | TOBACCO PHASE 15 - HERMAN | COMMONWEALTH OF PA | $140,317 | $28,064 |
| ROBERTSON, L | FY 16 STATE APPROPRIATION | PA COMM | $97,826 | $14,674 |
| ROBERTSON, L | EVALUATION REPORT FOR THE PENNSYLVANIA COMPREHENSIVE CANCER CONTROL PROGRAM 2015-2016 EVALUATION SERVICES PR | COMMONWEALTH OF PA | $44,067 | $7,931 |
| VILLARUZ, L | BIG DATA FOR BETTER HEALTH (BD4BH) IN PENNSYLVANIA | COMMONWEALTH OF PA | $17,745 | $3,549 |
| **TOTAL STATE** | | | **$706,259** | **$135,480** |

| SOCIETY AND FOUNDATIONS | | | | |
| APPLEMAN, L | TUMOR DRIVER IDENTIFICATION (TDI) | UPMC | $158 | $97 |
| BAHARY, N | A PRECLINICAL STUDY IN PANCREATIC CANCER | PITTSBURGH FOUNDATION | $37,499 | $0 |

Department of Medicine [http://www.dom.pitt.edu/hemaonc](http://www.dom.pitt.edu/hemaonc)
<table>
<thead>
<tr>
<th>Principal Investigator</th>
<th>Project Title</th>
<th>Funding Agency</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAUMAN, J</td>
<td>Genetic Alterations of PIK3C1 Identify Actionable Targets for HPV-Associated</td>
<td>V FND</td>
<td>$162,729</td>
<td>$5,994</td>
</tr>
<tr>
<td></td>
<td>Head and Neck Cancer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BURNS, T</td>
<td>Targeting Oncogene Driver Dependent Lung Cancer Through Induction of</td>
<td>Sidney Kimmel Cancer</td>
<td>$77,403</td>
<td>$11,611</td>
</tr>
<tr>
<td></td>
<td>Apoptosis After Twist Inhibition</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BURNS, T</td>
<td>Targeting the TWIST1-E2A Pathway in Oncogene Driven Lung Cancer</td>
<td>Doris Duke FND</td>
<td>$100,874</td>
<td>$8,070</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lungevity FDN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BURNS, T</td>
<td>Targeting KRAS-Mutant NSCLC Through Inhibition of MTOR and HSP90</td>
<td>ECOG-ACRIN Biospecimen Bank to Support the NCI-Clinical Trials Network (NCTN)</td>
<td>$69,441</td>
<td>$12,254</td>
</tr>
<tr>
<td>BUTTERFIELD, L</td>
<td>ECOC-AOCRIN Biospecimen Bank to Support the NCI-Clinical Trials Network (NCTN)</td>
<td>EAMRF</td>
<td>$9,706</td>
<td>$5,241</td>
</tr>
<tr>
<td>BUTTERFIELD, L</td>
<td>Novel Oncolytic Vaccinia Strans for Targeted Pancreatic Cancer Therapy</td>
<td>Lustgarten FND</td>
<td>$8,425</td>
<td>$1,685</td>
</tr>
<tr>
<td>BUTTERFIELD, L</td>
<td>ECOG-ACRIN Biospecimen Bank to Support the NCI-Clinical Trials Network (NCTN)</td>
<td>Frontier Science</td>
<td>$504,309</td>
<td>$60,517</td>
</tr>
<tr>
<td>BUTTERFIELD, L</td>
<td>Targeting BRAF-Mutant Melanoma Brain Metastases</td>
<td>UMDA</td>
<td>$16,772</td>
<td>$0</td>
</tr>
<tr>
<td>BUTTERFIELD, L</td>
<td>Immunology Monitoring and Cellular Products Laboratory (IMCPL): E2408</td>
<td>Frontier Science</td>
<td>$102,162</td>
<td>$12,259</td>
</tr>
<tr>
<td>BUTTERFIELD, L</td>
<td>Laboratory Studies: Processing, TNF-A ELISA, Proteasome ELISA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUTTERFIELD, L</td>
<td>Immunology Monitoring and Cellular Products Laboratory (IMCPL): E3612</td>
<td>Frontier Science</td>
<td>$40,015</td>
<td>$4,801</td>
</tr>
<tr>
<td>BUTTERFIELD, L</td>
<td>Phase 1 Vaccine Study Using Brain Tumor Initiating Cells in Who Grade II Gliomas</td>
<td>UCSF</td>
<td>$46,208</td>
<td>$24,953</td>
</tr>
<tr>
<td>BUTTERFIELD, L</td>
<td>A Pilot Multicenter Vaccine Study in Children with Diffuse Intrinsic Pontine</td>
<td>UCSF</td>
<td>$1,987</td>
<td>$0</td>
</tr>
<tr>
<td></td>
<td>Glioma (DIPG) and High-Grade Glioma (HGG) That Carry the Histone H3.3 K27M Mutation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUTTERFIELD, L</td>
<td>BCRF Project 4: A Cohort Study to Evaluate Genetic Predictors for Armoatase Inhibitor Musculoskeletal Symptoms</td>
<td>Frontier Science</td>
<td>$10,000</td>
<td>$2,000</td>
</tr>
<tr>
<td>BUTTERFIELD, L</td>
<td>IMCPL: E3611 Collection Kits, Processing, Shipping and Storage</td>
<td>Frontier Science</td>
<td>$73,872</td>
<td>$8,865</td>
</tr>
</tbody>
</table>

Department of Medicine http://www.dom.pitt.edu/hemaonc
<table>
<thead>
<tr>
<th>Name</th>
<th>Project Description</th>
<th>Institute</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUTTERFIELD, L</td>
<td>ECOG-ACRIN BIOSPECIMEN BANK TO SUPPORT THE NCI CLINICAL TRIALS NETWORK (NCTN)</td>
<td>EAMRF</td>
<td>$38,825</td>
<td>$20,966</td>
</tr>
<tr>
<td>DAVIDSON, N</td>
<td>THE BREAST CANCER RESEARCH FOUNDATION - DR. NANCY E. DAVIDSON</td>
<td>BCRF</td>
<td>$10,437</td>
<td>$2,087</td>
</tr>
<tr>
<td>DAVIDSON, N</td>
<td>EPigenetic Gene Regulation as a Target for Breast Cancer Therapy</td>
<td>BCRF</td>
<td>$192,754</td>
<td>$38,550</td>
</tr>
<tr>
<td>DAVIDSON, N</td>
<td>A PRECLINICAL STUDY IN PANCREATIC CANCER</td>
<td>Pittsburg Foundation</td>
<td>$1</td>
<td>$0</td>
</tr>
<tr>
<td>DAVIDSON, N</td>
<td>Big-NABCG Leadership</td>
<td>BCRF</td>
<td>$102,178</td>
<td>$20,436</td>
</tr>
<tr>
<td>DONNENBERG, V</td>
<td>Tumorigenicity of Breast Cancer Subsets</td>
<td>GOH</td>
<td>$1,910</td>
<td>$0</td>
</tr>
<tr>
<td>HERMAN, J</td>
<td>Personalized Therapy for MCRC Patients Based on Epigenetic Biomarker Status</td>
<td>JHU</td>
<td>$12,206</td>
<td>$2,442</td>
</tr>
<tr>
<td>HERMAN, J</td>
<td>Dutch Su2C: Molecular Early Detection of Colorectal Cancer (MEDOCC)</td>
<td>Dutch Cancer Society</td>
<td>$126,599</td>
<td>$12,660</td>
</tr>
<tr>
<td>JANKOWITZ, R</td>
<td>Generation and Use of a Database for Invasive Lobular Carcinoma</td>
<td>MWRI</td>
<td>$23,933</td>
<td>$0</td>
</tr>
<tr>
<td>JANKOWITZ, R</td>
<td>A Trial of Endocrine Response in Patients with Invasive Lobular Carcinoma</td>
<td>Komen</td>
<td>$8,208</td>
<td>$2,052</td>
</tr>
<tr>
<td>JANKOWITZ, R</td>
<td>Targeting Multiple Inhibitory Receptors in Cancer Patients</td>
<td>Cancer Res Inst</td>
<td>$1,150</td>
<td>$0</td>
</tr>
<tr>
<td>KIRKWOOD, J</td>
<td>Reducing Melanoma Deaths with Informed: Consequences of Screening</td>
<td>Rih/ MRA</td>
<td>$12,778</td>
<td>$0</td>
</tr>
<tr>
<td>KIRKWOOD, J</td>
<td>E1696 Phase II Evaluation of Immunization</td>
<td>ECOG</td>
<td>$18,195</td>
<td>$4,549</td>
</tr>
<tr>
<td>KIRKWOOD, J</td>
<td>Targeting Multiple Inhibitory Receptors in Cancer Patients</td>
<td>Cancer Res Inst</td>
<td>$4,598</td>
<td>$0</td>
</tr>
<tr>
<td>LEE, J</td>
<td>Targeting Multiple Inhibitory Receptors in Cancer Patients</td>
<td>Cancer Res Inst</td>
<td>$1,150</td>
<td>$0</td>
</tr>
<tr>
<td>LEE, J</td>
<td>UP-LEE-INDUSTRY-01</td>
<td>NSABP FND</td>
<td>$23,564</td>
<td>$5,891</td>
</tr>
<tr>
<td>LOKSHIN, A</td>
<td>Microenvironmental Control of Premalignant Lesions in Ovarian Cancer</td>
<td>OCRF</td>
<td>$215,205</td>
<td>$6,505</td>
</tr>
<tr>
<td>PARIKH, R</td>
<td>The Role of ATM Loss and ATR-CHK1 Pathway in Bladder Cancer</td>
<td>BCAN</td>
<td>$26,138</td>
<td>$0</td>
</tr>
<tr>
<td>PUHALLA, S</td>
<td>UP-PUHALLA-INDUSTRY-01</td>
<td>NSABP FND</td>
<td>$23,564</td>
<td>$5,891</td>
</tr>
<tr>
<td>Name</td>
<td>Project Description</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
<td></td>
</tr>
<tr>
<td>-----------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------------</td>
<td>----------------</td>
<td></td>
</tr>
<tr>
<td>RAGNI, MARGARET</td>
<td>A Phase 1 safety study in subjects with severe hemophilia B (factor IX deficiency) using adeno-associated viral vector (&quot;AAV vector&quot;) to deliver the gene for human factor IX into the liver coupled with transient immunomodulation.</td>
<td>$27,945</td>
<td>$2,253</td>
<td></td>
</tr>
<tr>
<td>SCHMITZ, J</td>
<td>A randomized Phase II study of gemcitabine, cisplatin +/- veliparib in patients with pancreas adenocarcinoma and a known BRCA/PALB2 mutation (PARTI) and a Phase II single arm study of single-agent veliparib in previously treated pancreas adenocarcin.</td>
<td>$3,097</td>
<td>$619</td>
<td></td>
</tr>
<tr>
<td>SCHMITZ, J</td>
<td>A randomized Phase II study of gemcitabine, cisplatin +/- veliparib in patients with pancreas adenocarcinoma and a known BRCA/PALB2 mutation (PARTI) and a Phase II single arm study of single-agent veliparib in previously treated pancreas adenocarcin.</td>
<td>$32,250</td>
<td>$6,450</td>
<td></td>
</tr>
<tr>
<td>TARHINI, A</td>
<td>Translational lung cancer clinical trials</td>
<td>$2,527</td>
<td>$253</td>
<td></td>
</tr>
<tr>
<td>THULL, D</td>
<td>The cancer family register</td>
<td>$219</td>
<td>$0</td>
<td></td>
</tr>
<tr>
<td>ZAROUR, H</td>
<td>Targeting multiple inhibitory receptors in cancer patients</td>
<td>$245,280</td>
<td>$0</td>
<td></td>
</tr>
<tr>
<td>ZAROUR, H</td>
<td>Therapy with anti-PD-1 antibody and PEG interferon alpha-2B for melanoma</td>
<td>$100,000</td>
<td>$0</td>
<td></td>
</tr>
<tr>
<td>ZAROUR, H</td>
<td>Targeting multiple inhibitory pathways to reverse m tumor-induced T cell dysfunction</td>
<td>$150,000</td>
<td>$0</td>
<td></td>
</tr>
<tr>
<td>TOTAL SOCIETY AND FOUNDATIONS</td>
<td></td>
<td>$2,666,271</td>
<td>$289,951</td>
<td></td>
</tr>
</tbody>
</table>

**INDUSTRY**

<table>
<thead>
<tr>
<th>Name</th>
<th>Project Description</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPLEMAN, L</td>
<td>UPCI 14-189 NCI funds - Year 2</td>
<td>$31,335</td>
<td>$10,665</td>
</tr>
<tr>
<td>Name</td>
<td>Study Description</td>
<td>Sponsor(s)</td>
<td>Direct Costs</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------------------------------------------------------------------------------</td>
<td>---------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Appleman, Leonard</td>
<td>A phase 2 study of recombinant glycosylated human interleukin-7 (CYT107) after completion of standard FDA approved therapy with sipuleucel-T (PROVENGE®) for patients with asymptomatic or minimally symptomatic metastatic castration-resistant prostate cancer</td>
<td>FHCRC/Dendreon</td>
<td>$10,400</td>
</tr>
<tr>
<td>Appleman, Leonard</td>
<td>A phase 1 study to evaluate the safety, pharmacokinetics, and pharmacodynamics of escalating doses of a vaccine-based immunotherapy regimen (VBIR) for prostate cancer</td>
<td>Pfizer</td>
<td>$430,678</td>
</tr>
<tr>
<td>Appleman, Leonard</td>
<td>A phase 3 randomized, double-blind, multi-center study of adjuvant nivolumab versus placebo in subjects with high risk invasive urothelial carcinoma</td>
<td>Bristol-Meyers squibb oncology immunolog</td>
<td>$32,950</td>
</tr>
<tr>
<td>Appleman, Leonard</td>
<td>Armor3-SV: A phase 3, randomized, open-label, multi-center, controlled study of galeterone compared to enzalutamide in men expressing androgen receptor splice variant-7 mRNA (AR-V7) with metastatic (M1) castrate resistant prostate cancer (CRPC)</td>
<td>Tokai pharmaceuticals, inc.</td>
<td>$22,196</td>
</tr>
<tr>
<td>Appleman, Leonard</td>
<td>A phase 3, randomized, controlled, multi-center, open-label study to compare tivozanib hydrochloride to sorafenib in subjects with refractory advanced renal cell carcinoma</td>
<td>Aveo pharmaceuticals, inc.</td>
<td>$21,184</td>
</tr>
<tr>
<td>Appleman, Leonard</td>
<td>A double-blinded, placebo-controlled, randomized phase II study of enzalutamide with or without the PI3 kinase / mtor inhibitor LY3023414 in men with metastatic castration resistant prostate cancer</td>
<td>Eli Lilly</td>
<td>$21,098</td>
</tr>
<tr>
<td>Name</td>
<td>Study Description</td>
<td>Sponsor</td>
<td>Direct Costs</td>
</tr>
<tr>
<td>------</td>
<td>-------------------</td>
<td>---------</td>
<td>--------------</td>
</tr>
<tr>
<td>Appleman, Leonard</td>
<td>Randomized Phase 2 Trial of ACP-196 and Pembrolizumab Immunotherapy Dual Checkpoint Inhibition in Platinum Resistant Metastatic Urothelial Carcinoma (Rapid Check Study)</td>
<td>Acerta Pharma BV</td>
<td>$251,784</td>
</tr>
<tr>
<td>Bahary, Nathan</td>
<td>A Phase 3, Randomized, Double-Blind, Placebo-Controlled, Multicenter Study of Pegylated Recombinant Human Hyaluronidase (PEGPH20) in Combination with Nab-Paclitaxel Plus Gemcitabine Compared with Placebo Plus Nab-Paclitaxel and Gemcitabine in Subjects with Platinum Resistant Metastatic Urothelial Carcinoma (RAPID Study)</td>
<td>Halozyme</td>
<td>$290,575</td>
</tr>
<tr>
<td>Bauman, J</td>
<td>A Phase 1B Study of Fclatuzumab and Cetuximab in Recurrent/Metastatic Head and Neck Squamous Cell Carcinoma with Biomarker Correlatives</td>
<td>Aveo Pharm</td>
<td>$168,874</td>
</tr>
<tr>
<td>Bauman, J</td>
<td>A Randomized, Phase II Study Evaluating Concurrent or Sequential Fixed-Dose Pembrolizumab in Combination with Nab-Paclitaxel Plus Gemcitabine</td>
<td>Merck</td>
<td>$716,613</td>
</tr>
<tr>
<td>Bauman, J</td>
<td>A Phase 1B Study of Fclatuzumab, Cisplatin and Intensity Modulated Radiotherapy (IMRT) in Intermediate or High Risk, Previously Untreated, Locally Advanced Head and Neck Squamous Cell Carcinoma with Biomarker Correlatives</td>
<td>Aveo Pharm</td>
<td>$167,480</td>
</tr>
<tr>
<td>Bauman, Julie</td>
<td>A Phase 3 Clinical Trial of Pembrolizumab (MK-3475) in First Line Treatment of Recurrent/Metastatic Head and Neck Squamous Cell Carcinoma</td>
<td>Merck</td>
<td>$199,394</td>
</tr>
<tr>
<td>Bauman, Julie</td>
<td>A Window of Opportunity Study of KTN3379 in Surgically Resectable Head and Neck Cancer Patients</td>
<td>Kolltan Pharmaceuticals</td>
<td>$178,460</td>
</tr>
<tr>
<td>Boyiadzis, Michael</td>
<td>Single Patient (D-R) Open Label Treatment Protocol with Neokoplast for Stage IV Pancreatic Cancer</td>
<td>Nankwest</td>
<td>$16,500</td>
</tr>
<tr>
<td>Study Description</td>
<td>Institution</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------</td>
<td>-------------</td>
<td>--------------</td>
<td>----------------</td>
</tr>
<tr>
<td>B-54-I &quot;PENELOPEB&quot;: PHASE III STUDY EVALUATING PALBOCICLIB (PD-0332991), A CYCLIN-DEPENDENT KINASE (CDK) 4/6</td>
<td>NSABP FND</td>
<td>$95,360</td>
<td>$23,840</td>
</tr>
<tr>
<td>EMPOWERING CHOICES IN BREAST CANCER TREATMENT (ECHO) - PHASE 2</td>
<td>UCSF</td>
<td>$4,800</td>
<td>$1,200</td>
</tr>
<tr>
<td>RETROSPECTIVE ASSESSMENT OF OUTCOMES OF PALBOCICLIB IN COMBINATION WITH LETROZOLE IN POSTMENOPAUSAL WOMEN WITH HR+/HER2- ADVANCED BREAST CANCER ENROLLED IN AN EXPANDED ACCESS PROGRAM</td>
<td>PFIZER</td>
<td>$15,795</td>
<td>$3,949</td>
</tr>
<tr>
<td>A PHASE 2 OPEN LABEL, MULTI-CENTER, MULTINATIONAL, RANDOMIZED, PARALLEL DESIGN STUDY INVESTIGATING THE EFFICACY AND SAFETY OF GTX-024 ON METASTATIC OR LOCALLY ADVANCED ER+/AR+ BREAST CANCER (BC) IN POSTMENOPAUSAL WOMEN</td>
<td>GTX, INC</td>
<td>$78,290</td>
<td>$19,573</td>
</tr>
<tr>
<td>A RANDOMIZED OPEN-LABEL PHASE III STUDY OF A SINGLE AGENT PEMBROLIZUMAB VS SINGLE AGENT CHEMOTHERAPY PER PHYSICIAN’S CHOICE FOR METASTATIC TRIPLE NEGATIVE BREAST CANCER (MTNBC)- (KEYNOTE-119)</td>
<td>MERCK</td>
<td>$228,011</td>
<td>$57,003</td>
</tr>
<tr>
<td>A PHASE 2 OPEN LABEL, MULTI-CENTER, MULTINATIONAL STUDY INVESTIGATING THE EFFICACY AND SAFETY OF GTX-024 ON ADVANCED, ANDROGEN RECEPTOR-POSITIVE TRIPLE NEGATIVE BREAST CANCER (AR+ TNBC)</td>
<td>GTX, INC</td>
<td>$75,870</td>
<td>$18,968</td>
</tr>
<tr>
<td>A PHASE 3, RANDOMIZED STUDY OF MARGETUXIMAB PLUS CHEMOTHERAPY VS TRASTUZUMAB PLUS CHEMOTHERAPY IN THE TREATMENT OF PATIENTS WITH HER2+ METASTATIC BREAST CANCER WHO HAVE RECEIVED 2 PRIOR ANTI-HER2 THERAPIES AND REQUIRE SYSTEMIC TREATMENT</td>
<td>MACROGENICS</td>
<td>$265,355</td>
<td>$66,339</td>
</tr>
<tr>
<td>Name</td>
<td>Description</td>
<td>Sponsor</td>
<td>Direct Costs</td>
</tr>
<tr>
<td>-----------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>BRUFSKY, ADAM</td>
<td>MY PATHWAY: AN OPEN-LABEL PHASE IIA STUDY EVALUATING TRASTUZUMAB/PERTUZUMAB, ERLOTINIB, VEMURAFENIB, AND VISMODEGIB IN PATIENTS WHO HAVE ADVANCED SOLID TUMORS WITH MUTATIONS OR GENE EXPRESSION ABNORMALITIES PREDICTIVE OF RESPONSE TO ONE OF THESE AGENTS</td>
<td>GENENTECH, INC.</td>
<td>$118,010</td>
</tr>
<tr>
<td>BRUFSKY, ADAM</td>
<td>A MULTISTAGE, PHASE II STUDY EVALUATING THE SAFETY AND EFFICACY OF COBIMETINIB IN COMBINATION WITH PACLITAXEL AS FIRST-LINE TREATMENT FOR PATIENTS WITH METASTATIC TRIPLE-NEGATIVE BREAST CANCER</td>
<td>HOFFMAN LA-ROCHE, INCORPORATED</td>
<td>$503,848</td>
</tr>
<tr>
<td>BURGESS, MELISSA</td>
<td>A RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED, PHASE 3 TRIAL OF DOXORUBICIN PLUS OLRATUMAB VERSUS DOXORUBICIN PLUS PLACEBO IN PATIENTS WITH ADVANCED OR METASTATIC SOFT TISSUE SARCOMA</td>
<td>ELI LILLY</td>
<td>$39,205</td>
</tr>
<tr>
<td>BURGESS, MELISSA</td>
<td>PHASE II STUDY OF ANK (ACTIVATED NK-92, FORMERLY NEUKOPLAST) INFUSIONS IN PATIENTS WITH UNRESECTABLE STAGE III (IIIB) OR DISTANT METASTATIC (IV) MERKEL CELL CARCINOMA (MCC)</td>
<td>CONKWEST</td>
<td>$20,218</td>
</tr>
<tr>
<td>BURNS, TIMOTHY</td>
<td>AN OPEN-LABEL, SINGLE-ARM, PHASE 2 STUDY EVALUATING THE EFFICACY, SAFETY AND PHARMACOKINETICS OF ROVALPITUZUMAB TESIRINE (SC16L6D6.5) FOR THIRD-LINE AND LATER TREATMENT OF SUBJECTS WITH RELAPSED OR REFRACTORY DELTA-LIKE PROTEIN 3-EXPRESSING SMALL CELL LUNG</td>
<td>STEMCENTRX, INC.</td>
<td>$65,100</td>
</tr>
<tr>
<td>BUTTERFIELD, L</td>
<td>A PHASE II STUDY OF THE ANTI-PD1 ANTIBODY PEMBROLIZUMAB (MK-3475) IN PATIENTS WITH ADVANCED SARCOMAS</td>
<td>SARC</td>
<td>$239,344</td>
</tr>
<tr>
<td>Name</td>
<td>Project Description</td>
<td>Sponsor</td>
<td>Direct Costs</td>
</tr>
<tr>
<td>-----------------</td>
<td>--------------------------------------------------------------------------------------</td>
<td>-----------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>CLUMP, DAVID</td>
<td>A MULTICENTER, RANDOMIZED, PLACEBO-CONTROLLED, DOUBLE-BLINDED STUDY OF THE EFFICACY, SAFETY, AND PHARMACOKINETICS OF COBIPROSTONE FOR THE PREVENTION OF SEVERE ORAL MUCOSITIS IN SUBJECTS WITH HEAD AND NECK CANCER (HNC) RECEIVING CONCURRENT RADIATION AND CH</td>
<td>SUCAMPO AG</td>
<td>$8,600</td>
</tr>
<tr>
<td>DORRITIE, K</td>
<td>ESTABLISHED AND IN VIVO EVALUATION OF EXPERIMENTAL AGENTS IN HUMAN ACUTE MYELOID LEUKEMIA MODELS IN IMMUNOCO</td>
<td>CHAMPIONS ONCOLOGY</td>
<td>$15,000</td>
</tr>
<tr>
<td>DORRITIE, K</td>
<td>ESTABLISHED AND IN VIVO EVALUATION OF EXPERIMENTAL AGENTS IN HUMAN ACUTE MYELOID LEUKEMIA MODELS IN IMMUNOCO</td>
<td>CHAMPIONS ONCOLOGY</td>
<td>$24,000</td>
</tr>
<tr>
<td>DRAPPATZ, J</td>
<td>STING (STUDY OF IMMUNOTHERAPY IN NEWLY DIAGNOSED GlioBLASTOMA)</td>
<td>IMMUNE CELL THERAPY</td>
<td>$163,220</td>
</tr>
<tr>
<td>DRAPPATZ, J</td>
<td>A PHASE 3, RANDOMIZED, CONTROLLED, DOUBLE-ARM, OPEN-LABEL, MULTI-CENTER STUDY OF VB-111 COMBINED WITH BEVACIZUMAB VS. BEVACIZUMAB MONOTHERAPY IN PATIENTS WITH RECURRENT GlioBLASTOMA</td>
<td>VASCULAR BIOGENICS</td>
<td>$54,194</td>
</tr>
<tr>
<td>DRAPPATZ, JAN</td>
<td>ABT-414 ALONE OR ABT-414 PLUS TEMOZOLOMIDE VERSUS LOMUSTINE OR TEMOZOLOMIDE FOR RECURRENT GlioBLASTOMA: A RANDOMIZED PHASE II STUDY OF THE EORTC BRAIN TUMOR GROUP</td>
<td>ABBVIE</td>
<td>$20,995</td>
</tr>
<tr>
<td>FERRIS, R</td>
<td>HEAD AND NECK SQUAMOUS CELL CARCINOMA CHARACTERIZATION OF CHECKPOINT RECEPTOR EXPRESSION AND RESPONSIVENESS OF</td>
<td>MEDIMMUNE</td>
<td>$148,800</td>
</tr>
<tr>
<td>FERRIS, R</td>
<td>AN OPEN LABEL, RANDOMIZED PHASE 3 CLINICAL TRIAL OF NIVOLUMAB VS THERAPY OF INVESTIGATORS CHOICE IN RECURRENT OR</td>
<td>BRISTOL MYERS SQUIBB</td>
<td>$489,500</td>
</tr>
<tr>
<td>Project Description</td>
<td>Sponsor</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------------</td>
<td>--------------------------------</td>
<td>---------------</td>
<td>----------------</td>
</tr>
<tr>
<td><strong>FERRIS, ROBERT</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-comparative, two-cohort, single-arm, open-label, phase 1/2 study of nivolumab (BMS-936558) in subjects with virus-positive and virus-negative solid tumors</td>
<td>Bristol-Myers Squibb Oncology Immunolog</td>
<td>$136,782</td>
<td>$34,196</td>
</tr>
<tr>
<td><strong>FERRIS, ROBERT</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A phase III randomized, open-label, multi-center, global study of medi4736 monotherapy and medi4736 in combination with tremelimunab versus standard of care therapy in patients with recurrent or metastatic squamous cell carcinoma of the head and neck (SCC)</td>
<td>AstraZeneca</td>
<td>$230,444</td>
<td>$57,611</td>
</tr>
<tr>
<td><strong>FERRIS, ROBERT</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A phase I study to evaluate the safety, tolerability, pharmacokinetics, pharmacodynamics, and preliminary clinical activity of medi0562 in adult subjects with selected solid tumors</td>
<td>MedImmune, Inc.</td>
<td>$242,880</td>
<td>$60,720</td>
</tr>
<tr>
<td><strong>FERRIS, ROBERT</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A phase 1, open label, dose escalation study of mga271 in combination with pembrolizumab in patients with b7-h3-expressing melanoma, squamous cell cancer of the head and neck, or non-small cell lung cancer</td>
<td>Macrogenics</td>
<td>$488,426</td>
<td>$122,107</td>
</tr>
<tr>
<td><strong>FERRIS, ROBERT</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A phase I dose escalation and cohort expansion study of the safety, tolerability and efficacy of anti-KIR (lirilumab) administered in combination with anti-PD-1 (nivolumab) in advanced refractory solid tumors</td>
<td>Bristol-Myers Squibb Oncology Immunolog</td>
<td>$240,212</td>
<td>$60,053</td>
</tr>
<tr>
<td><strong>FERRIS, ROBERT</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A phase 1/2 dose escalation and cohort expansion study of the safety and tolerability of urelumab administered in combination with nivolumab in advanced /metastatic solid tumors and B cell non-Hodgkins lymphoma</td>
<td>Bristol-Myers Squibb Oncology Immunolog</td>
<td>$418,802</td>
<td>$104,700</td>
</tr>
</tbody>
</table>

http://www.dom.pitt.edu/hemaonc
<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Sponsor</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ferris, Robert</td>
<td>A Phase II, Randomized, Open-Label, Multi-Center, Global Study of Medi4736 Monotherapy, Tremelimumab Monotherapy, and Medi4736 in Combination with Tremelimumab in Patients with Recurrent or Metastatic Squamous Cell Carcinoma of the Head and Neck (SCCHN)</td>
<td>AstraZeneca</td>
<td>$36,474</td>
<td>$9,118</td>
</tr>
<tr>
<td>Hou, Jing-Zhou</td>
<td>A Randomized, Double-Blind, Placebo-Controlled Phase 3 Study of Ipi-145 in Combination with Rituximab vs Rituximab in Subjects with Previously-Treated Follicular Lymphoma</td>
<td>Infinity Pharmaceuticals, Inc.</td>
<td>$10,950</td>
<td>$2,738</td>
</tr>
<tr>
<td>Hou, Jing-Zhou</td>
<td>An Open Label, Phase 2 Study To Evaluate Efficacy and Safety of Daratumumab in Relapsed or Refractory Mantle Cell Lymphoma, Diffuse Large B-Cell Lymphoma, and Follicular Lymphoma</td>
<td>Janssen Pharmaceuticals</td>
<td>$35,766</td>
<td>$8,941</td>
</tr>
<tr>
<td>Im, Annie</td>
<td>A Phase 3 Open-Label Randomized Study of Quizartinib (Ac220) Monotherapy Versus Salvage Chemotherapy in Subjects with Flt3-Itd Positive Acute Myeloid Leukemia (Aml) Refractory To Or Relapsed After First-Line Treatment With Or Without Hematopoietic Stem Cell</td>
<td>Ambit Biosciences</td>
<td>$42,564</td>
<td>$10,641</td>
</tr>
<tr>
<td>Name</td>
<td>Project Description</td>
<td>Sponsor</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-------------------------------------------------------------------------------------</td>
<td>--------------------------</td>
<td>--------------</td>
<td>----------------</td>
</tr>
<tr>
<td>IM, Annie</td>
<td>A randomized, parallel-cohort phase 1 study of INC039110 in combination with corticosteroids for the treatment of grades II to IV acute graft-versus-host disease</td>
<td>INCYTE CORP.</td>
<td>$10,900</td>
<td>$2,725</td>
</tr>
<tr>
<td>Jankowitz, R</td>
<td>A randomized, parallel-cohort phase 1 study evaluating the combination of trastuzumab emtansine (T-DM1) with neratinib</td>
<td>NSABP FDN</td>
<td>$31,120</td>
<td>$7,780</td>
</tr>
<tr>
<td>Kirkwood, John</td>
<td>A multicenter open label phase 1b clinical study of CMP-001 in combination with pembrolizumab in subjects with advanced melanoma</td>
<td>CHECKMATE PHARMACEUTICALS</td>
<td>$24,955</td>
<td>$6,239</td>
</tr>
<tr>
<td>Kirkwood, John</td>
<td>A phase IB/II dose-escalation study evaluating the combination of trastuzumab emtansine (T-DM1) with neratinib</td>
<td>NSABP FDN</td>
<td>$31,120</td>
<td>$7,780</td>
</tr>
<tr>
<td>Kirkwood, John</td>
<td>A phase II dose-escalation study evaluating the combination of trastuzumab emtansine (T-DM1) with neratinib</td>
<td>NSABP FDN</td>
<td>$31,120</td>
<td>$7,780</td>
</tr>
<tr>
<td>Kirkwood, John</td>
<td>A phase IB/II dose-escalation study evaluating the combination of trastuzumab emtansine (T-DM1) with neratinib</td>
<td>NSABP FDN</td>
<td>$31,120</td>
<td>$7,780</td>
</tr>
<tr>
<td>Kiss, Joseph</td>
<td>A phase III double-blind, randomized, parallel group, multicenter placebo-controlled trial to study the efficacy and safety of caplacizumab in patients with acquired thrombotic thrombocytopenic purpura</td>
<td>ABLYNX NV</td>
<td>$25,299</td>
<td>$6,325</td>
</tr>
<tr>
<td>Lee, A</td>
<td>A phase III double-blind, randomized, parallel group, multicenter placebo-controlled trial to study the efficacy and safety of caplacizumab in patients with acquired thrombotic thrombocytopenic purpura</td>
<td>ABLYNX NV</td>
<td>$25,299</td>
<td>$6,325</td>
</tr>
<tr>
<td>Lee, J</td>
<td>A phase III double-blind, randomized, parallel group, multicenter placebo-controlled trial to study the efficacy and safety of caplacizumab in patients with acquired thrombotic thrombocytopenic purpura</td>
<td>ABLYNX NV</td>
<td>$25,299</td>
<td>$6,325</td>
</tr>
<tr>
<td>Lee, J</td>
<td>A phase III double-blind, randomized, parallel group, multicenter placebo-controlled trial to study the efficacy and safety of caplacizumab in patients with acquired thrombotic thrombocytopenic purpura</td>
<td>ABLYNX NV</td>
<td>$25,299</td>
<td>$6,325</td>
</tr>
<tr>
<td>Name</td>
<td>Study Description</td>
<td>Sponsor/Company</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>---------------------</td>
<td>-----------------------------------------------------------------------------------</td>
<td>----------------------------------------</td>
<td>--------------</td>
<td>----------------</td>
</tr>
<tr>
<td>LEE, JAMES</td>
<td>A Phase 1 Study of the Oral TRK Inhibitor LOXO-101 in Adult Patients with Solid Tumors</td>
<td>LOXO ONCOLOGY</td>
<td>$18,738</td>
<td>$4,685</td>
</tr>
<tr>
<td>LEE, JAMES</td>
<td>A Phase III Study of Pembrolizumab (MK-3475) vs. Chemotherapy in Microsatellite Instability-High (MSI-H) or Mismatch Repair Deficient (DMMR) Stage IV Colorectal Carcinoma (KEYNOTE-177)</td>
<td>MERCK</td>
<td>$153,641</td>
<td>$38,410</td>
</tr>
<tr>
<td>LEE, JAMES</td>
<td>A Phase 1/1B, Open-Label, Multicenter, Repeat-Dose, Dose-Selection Study of CPI-444 as Single Agent and in Combination with Atezolizumab in Patients with Selected Incurable Cancers</td>
<td>CORVUS PHARMACEUTICALS, INC.</td>
<td>$72,618</td>
<td>$18,154</td>
</tr>
<tr>
<td>LEE, JAMES</td>
<td>A Phase II Study of Pembrolizumab (MK-3475) as Monotherapy in Subjects with Previously Treated Locally Advanced Unresectable or Metastatic (Stage IV) Mismatched Repair Deficient or Microsatellite Instability-High Colorectal Carcinoma (KEYNOTE-164)</td>
<td>MERCK</td>
<td>$10,950</td>
<td>$2,738</td>
</tr>
<tr>
<td>LEE, JAMES</td>
<td>A Phase 1/2 Study of the Safety, Tolerability, and Efficacy of INCB24360 Administered in Combination with Nivolumab in Select Advanced Cancers</td>
<td>INCYTE CORP.</td>
<td>$36,628</td>
<td>$9,157</td>
</tr>
<tr>
<td>LIEBERMAN, F</td>
<td>ABTC 1301: Pilot Study of MLN0128 in Preoperative Recurrent Glioblastoma (GBM) Patients (UPCI-14-167)</td>
<td>JHU</td>
<td>$20,596</td>
<td>$9,404</td>
</tr>
<tr>
<td>MARKS, STANLEY</td>
<td>Randomized Trial of SPI-2012 Versus PEGFILGRASTIM in the Management of Chemotherapy Induced Neutropenia in Breast Cancer Patients Receiving Docetaxel and Cyclophosphamide (TC) (ADVANCE-1)</td>
<td>SPECTRUM PHARMACEUTICALS, INC.</td>
<td>$23,060</td>
<td>$5,765</td>
</tr>
<tr>
<td>Project Description</td>
<td>Institution</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
<td></td>
</tr>
<tr>
<td>------------------------------------------------------------------------------------</td>
<td>-------------</td>
<td>---------------</td>
<td>----------------</td>
<td></td>
</tr>
<tr>
<td>CLINICAL AND BIOLOGICAL CHARACTERIZATION OF MALE BREAST CANCER: AN INTERNATIONAL EORTC, BIG, TBCRC, AND NABCG</td>
<td>JHU</td>
<td>$14,400</td>
<td>$2,880</td>
<td></td>
</tr>
<tr>
<td>THE INCIDENCE OF ADJACENT SYNCHRONOUS IPSILATERAL INFILTRATING CARCINOMA AND/OR DCIS IN PATIENTS DIAGNOSED WITH FLA</td>
<td>JHU</td>
<td>$14,888</td>
<td>$2,978</td>
<td></td>
</tr>
<tr>
<td>A RANDOMIZED PHASE II/III TRIAL OF INTRAVENOUS IV PACLITAXEL WEEKLY PLUS IV CARBOPLATIN ONCE EVERY 3 WEEKS VERSUS</td>
<td>Saitama Med Univ</td>
<td>$14,589</td>
<td>$3,811</td>
<td></td>
</tr>
<tr>
<td>A RANDOMIZED PHASE II TRIAL OF EVEROLIMUS AND LETROZOLE OR HORMONAL THERAPY IN WOMEN WITH ADVANCED, PERSISTEN</td>
<td>Gynne Oncology Group</td>
<td>$80,800</td>
<td>$20,200</td>
<td></td>
</tr>
<tr>
<td>A PHASE 2, OPEN-LABEL STUDY OF RUCAPARIB IN PATIENTS WITH PLATINUM-SENSITIVE, RELAPSED, HIGH-GRADE EPITHELIAL OVARIAN, FALLOPIAN TUBE, OR PRIMARY PERITONEAL CANCER (PART 2)</td>
<td>Clovis Oncology, Inc.</td>
<td>$10,950</td>
<td>$2,738</td>
<td></td>
</tr>
<tr>
<td>ASSESSING THE ASSOCIATION BETWEEN PATIENTS' PERCEPTIONS OF SUCCESS WITH POST-OPERATIVE PAIN MANAGEMENT AND OVERALL EXPERIENCE WITH CARE</td>
<td>The Medicines Company</td>
<td>$7,114</td>
<td>$1,779</td>
<td></td>
</tr>
<tr>
<td>A PIVOTAL PHARMACOKINETIC BIOEQUIVALENCE STUDY COMPARING GENERIC TO REFERENCE LIPOSOME-ENCAPSULATED DOXORUBICIN HYDROCHLORIDE IN SUBJECTS WITH EPITHELIAL OVARIAN CARCINOMA WHO HAVE FAILED PLATINUM-BASED CHEMOTHERAPY PHASE I, OPEN-LABEL TRIAL TO EVALUATE THE SAFETY AND IMMUNOGENICITY OF INO-5150 ALONE OR IN COMBINATION WITH I</td>
<td>Tolmar, Inc.</td>
<td>$32,891</td>
<td>$8,223</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Inovio Pharmaceutcls</td>
<td>$77,317</td>
<td>$19,329</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Title</td>
<td>Institution</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>----------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------</td>
<td>---------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Parikh, Rahul</td>
<td>A Phase 2, Two-Arm Multicenter, Open-Label Study to Determine the Efficacy and the Safety of Two Different Dose Regimens of a Pan-FGFR Tyrosine Kinase Inhibitor JNJ-42756493 in Subjects with Metastatic or Surgically Unresectable Urothelial Cancer with FGFr</td>
<td>Janssen Pharmaceuticals</td>
<td>$251,784</td>
<td>$62,946</td>
</tr>
<tr>
<td>Parikh, Rahul</td>
<td>A Phase II Clinical Trial of Pembrolizumab (MK-3475) in Subjects with Advanced / Unresectable or Metastatic Urothelial Cancer</td>
<td>Merck</td>
<td>$9,050</td>
<td>$2,263</td>
</tr>
<tr>
<td>Puhall, S</td>
<td>A Randomized Phase II Study of Adjuvant Trastuzumab Emtansine (T-DM1) vs Paclitaxel in Combination with Trastu</td>
<td>Dana Farber Cancer Inst</td>
<td>$143,600</td>
<td>$35,900</td>
</tr>
<tr>
<td>Puhall, S</td>
<td>A Phase II Randomized Study Evaluating the Biological and Clinical Effects of the Combination of Palbociclib with Letrozole as Neoadjuvant Therapy in Post-Menopausal Women with Estrogen-Receptor Positive Primary Breast Cancer</td>
<td>NSABP FND</td>
<td>$84,400</td>
<td>$21,100</td>
</tr>
<tr>
<td>Puhall, S</td>
<td>UPCI 14-175 Phase II Randomized, Double-Blind, Placebo-Controlled Trial of Radium-223 Dichloride Versus Placebo When Administered</td>
<td>Bayer Corp</td>
<td>$355,630</td>
<td>$88,908</td>
</tr>
<tr>
<td>Puhall, Shannon</td>
<td>A Phase 2 Study of Abemaciclib in Patients with Brain Metastases Secondary to Hormone Receptor Positive Breast Cancer, Non-Small Cell Lung Cancer, or Melanoma</td>
<td>Eli Lilly</td>
<td>$145,221</td>
<td>$36,305</td>
</tr>
<tr>
<td>Puhall, Shannon</td>
<td>An Open-Label Study to Characterize the Incidence and Severity of Diarrhea in Patients with Early-Stage HER2+ Breast Cancer Treated with Neratinib and Intensive Loperamide Prophylaxis</td>
<td>Puma Biotechnology, Inc.</td>
<td>$58,425</td>
<td>$14,606</td>
</tr>
<tr>
<td>Name</td>
<td>Project Description</td>
<td>Sponsor</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>---------------------------</td>
<td>----------------------------------------------------------------------------------------------------------</td>
<td>-----------------------</td>
<td>--------------</td>
<td>----------------</td>
</tr>
<tr>
<td>PUHALLA, Shannon</td>
<td>A RANDOMIZED, PLACEBO-CONTROLLED, DOUBLE-BLIND, PHASE 3 STUDY EVALUATING THE SAFETY AND EFFICACY OF THE ADDITION OF VELIPARIB PLUS CARBOPLATIN VERSUS THE ADDITION OF CARBOPLATIN TO STANDARD NEOADJUVANT CHEMOTHERAPY VERSUS STANDARD NEOADJUVANT CHEMOTHERAPY</td>
<td>ABBVIE</td>
<td>$5,200</td>
<td>$1,300</td>
</tr>
<tr>
<td>PUHALLA, Shannon</td>
<td>A PHASE III, MULTICENTER, RANDOMIZED, PLACEBO-CONTROLLED STUDY OF ATEZOILZUMAB (ANTI-PD-L1 ANTIBODY) IN COMBINATION WITH NAB-PACLITAXEL COMPARED WITH PLACEBO WITH NAB-PACLITAXEL FOR PATIENTS WITH PREVIOUSLY UNTREATED METASTATIC TRIPLE-NEGATIVE BREAST CANCER</td>
<td>HOFFMAN LA-ROCHE, INCORPORATED</td>
<td>$275,673</td>
<td>$68,918</td>
</tr>
<tr>
<td>RAGNI, Margaret</td>
<td>A PHASE II/IIA OPEN LABEL MULTICENTER DOSE ESCALATION STUDY TO ASSESS THE SAFETY PHARMACOKINETICS AND PHARMACODYNAMICS PROFILE OF A LONG ACTING RECOMBINANT FACTOR VIIA (MOD-5014) IN ADULT MEN WITH HEMOPHILIA A OR B</td>
<td>SPARK THERAPEUTICS</td>
<td>$11,567</td>
<td>$7,114</td>
</tr>
<tr>
<td>RAGNI, Margaret</td>
<td>ALN-AT3SC-002 AN OPEN LABEL EXTENSION STUDY OF SUBCUTANEOUSLY ADMINISTERED ALN-AT3SC IN SUBJECTS WITH MODERATE OR SEVERE HEMOPHILIA A OR B WHO HAVE COMPLETED A PREVIOUS CLINICAL STUDY WITH ALN-AT3SC</td>
<td>OPKO BIOLOGICS, LTD</td>
<td>$9,909</td>
<td>$0</td>
</tr>
<tr>
<td>RAGNI, Margaret</td>
<td>A PHASE I SAFETY STUDY IN SUBJECTS WITH SEVERE HEMOPHILIA B (FACTOR IX DEFICIENCY) USING A SINGLE-STRANDED, ADENO-ASSOCIATED PSEUDOTYPE 8 VIRAL VECTOR TO DELIVER THE GENE FOR HUMAN FACTOR IX (AAV8-HFIX19-101)</td>
<td>SPARK THERAPEUTICS</td>
<td>$11,711</td>
<td>$6,910</td>
</tr>
<tr>
<td>Name</td>
<td>Description</td>
<td>Institution</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------</td>
<td>--------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Ragni, Margaret</td>
<td>A Phase III Open-Label Safety and Dose-Finding Study of Adeno-Associated Virus (AAV) RH10-Mediated Gene Transfer of Human Factor IX in Adults with Moderate/Severe to Severe Hemophilia B</td>
<td>PPD Development Corporation</td>
<td>$6,676</td>
<td>$1,669</td>
</tr>
<tr>
<td>Ragni, Margaret</td>
<td>ALN-AT3SC-001: A Phase 1 Single-Ascending and Multiple-Ascending Dose, Safety, Tolerability and Pharmacokinetics Study of Subcutaneously Administered ALN-AT3SC in Healthy Adult Volunteers and Hemophilia A or B Patients</td>
<td>Anylan Pharmaceuticals</td>
<td>$10,490</td>
<td>$3,248</td>
</tr>
<tr>
<td>Raptis, Anastasios</td>
<td>A Phase III Study of Lenalidomide and Low-Dose Dexamethasone With or Without Pembrolizumab (MK3475) in Newly Diagnosed and Treatment Naïve Multiple Myeloma</td>
<td>Merck</td>
<td>$35,812</td>
<td>$8,953</td>
</tr>
<tr>
<td>Redner, Robert</td>
<td>A Phase 3, Randomized, Placebo-Controlled, Double-Blind Study of Oral Ixazomib Maintenance Therapy After Initial Therapy in Patients With Newly Diagnosed Multiple Myeloma Not Treated With Stem Cell Transplantation</td>
<td>Millennium Pharmaceuticals</td>
<td>$36,372</td>
<td>$9,183</td>
</tr>
<tr>
<td>Sehgal, Alison</td>
<td>A Phase 3, Randomized, Study to Assess the Efficacy and Safety of Ublituximab in Combination with Ibrutinib Compared to Ibrutinib Alone, in Patients With Previously Treated High-Risk Chronic Lymphocytic Leukemia</td>
<td>TG Therapeutics, Inc.</td>
<td>$21,998</td>
<td>$5,499</td>
</tr>
<tr>
<td>Sehgal, Alison</td>
<td>A Phase 3, Randomized, Multicenter, Double-Blind, Placebo-Controlled, 2-Arm, Efficacy and Safety Study of Neod001 Plus Standard of Care Versus Placebo Plus Standard of Care in Subjects With Light Chain (AL) Amyloidosis</td>
<td>Prothena Therapeutics</td>
<td>$48,559</td>
<td>$12,140</td>
</tr>
<tr>
<td>Name</td>
<td>Description</td>
<td>Investigator/Company</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>-------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------</td>
<td>--------------</td>
<td>----------------</td>
</tr>
<tr>
<td>SOCINSKI, MARK</td>
<td><strong>AN OPEN LABEL, MULTICENTER, PHASE 2 STUDY TO DETERMINE THE SAFETY AND EFFICACY OF BIND-014 (DOCETAXEL nanoparticles for injectable suspension) AS A SECOND-LINE THERAPY FOR PATIENTS WITH KRAS MUTATION POSITIVE OR SQUAMOUS CELL NON-SMALL CELL LUNG CANCER</strong></td>
<td>BIND BIOSCIENCES, INC.</td>
<td>$14,102</td>
<td>$3,526</td>
</tr>
<tr>
<td>SOCINSKI, MARK</td>
<td><strong>RANDOMIZED, MULTICENTER, PHASE III, OPEN-LABEL STUDY OF ALECTINIB VERSUS CRIZOTINIB IN TREATMENT-NAIVE ANAPLASTIC LYMPHOMA KINASE-POSITIVE ADVANCED NON-SMALL CELL LUNG CANCER</strong></td>
<td>HOFFMAN LA-ROCHE, INCORPORATED</td>
<td>$12,150</td>
<td>$3,038</td>
</tr>
<tr>
<td>SUN, WEIJING</td>
<td><strong>A PHASE II CLINICAL TRIAL OF PEMBROLIZUMAB AS MONOTHERAPY AND IN COMBINATION WITH CISPLATIN+5-FLUOROURACIL IN SUBJECTS WITH RECURRENT OR METASTATIC GASTRIC OR GASTROESOPHAGEAL JUNCTION ADENOCARCINOMA</strong></td>
<td>MERCK</td>
<td>$673,890</td>
<td>$168,472</td>
</tr>
<tr>
<td>SUN, WEIJING</td>
<td><strong>A RANDOMIZED, ACTIVE-CONTROLLED, PARTIALLY BLINDED, BIOMARKER SELECT, PHASE III CLINICAL TRIAL OF PEMBROLIZUMAB AS MONOTHERAPY AND IN COMBINATION WITH CISPLATIN+5-FLUOROURACIL VERSUS PLACEBO+CISPLATIN+5-FLUOROURACIL AS FIRST-LINE TREATMENT IN SUBJECTS WITH METASTATIC PANCREATIC DUCTAL ADENOCARCINOMA</strong></td>
<td>MERCK</td>
<td>$218,428</td>
<td>$54,607</td>
</tr>
<tr>
<td>SUN, WEIJING</td>
<td><strong>A PHASE IB AND II OPEN-LABEL, MULTI-CENTER STUDY OF MEDI4736 EVALUATED IN DIFFERENT COMBINATIONS IN PATIENTS WITH METASTATIC PANCREATIC DUCTAL ADENOCARCINOMA</strong></td>
<td>ASTRAZENECA</td>
<td>$495,384</td>
<td>$123,846</td>
</tr>
<tr>
<td>SUN, WEIJING</td>
<td><strong>A PHASE II OPEN-LABEL, MULTI-CENTER STUDY OF MEDI4736 EVALUATED AS SINGLE AGENT OR IN COMBINATION WITH TREMELIMUMAB IN PATIENTS WITH METASTATIC PANCREATIC DUCTAL ADENOCARCINOMA</strong></td>
<td>ASTRAZENECA</td>
<td>$100,865</td>
<td>$25,216</td>
</tr>
<tr>
<td>Study Description</td>
<td>Sponsor</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------</td>
<td>--------------------------</td>
<td>---------------</td>
<td>----------------</td>
<td></td>
</tr>
<tr>
<td>A Phase III, Randomized, Open-Label Clinical Trial of Pembrolizumab (MK-3475) Versus Paclitaxel in Subjects with Advanced Gastric or Gastroesophageal Junction Adenocarcinoma Who Progressed After First-Line Therapy with Platinum and Fluoropyrimidine</td>
<td>Merck</td>
<td>$87,750</td>
<td>$21,937</td>
<td></td>
</tr>
<tr>
<td>Randomized, Double-Blind, Phase 3 Study Evaluating TAS-102 Plus Best Supportive Care (BSC) Versus Placebo Plus BSC in Patients with Metastatic Gastric Cancer Refractory to Standard Treatments</td>
<td>Taiho</td>
<td>$147,536</td>
<td>$36,884</td>
<td></td>
</tr>
<tr>
<td>A Phase 1/2 Study Exploring the Safety, Tolerability, and Efficacy of MK-3475 in Combination with INCB024360 in Subjects with Selected Cancers</td>
<td>Incyte Corp.</td>
<td>$24,963</td>
<td>$6,241</td>
<td></td>
</tr>
<tr>
<td>A Multi-Center Phase 2 Open-Label Study to Evaluate Safety and Efficacy in Subjects with Melanoma Metastatic to the Brain Treated with Nivolumab in Combination with Ipilimumab Followed by Nivolumab Monotherapy</td>
<td>Bristol Meyers Squibb Oncology Immunology</td>
<td>$37,092</td>
<td>$9,273</td>
<td></td>
</tr>
<tr>
<td>A Single-Arm Phase II Clinical Trial of Cabozantinib (XL184) in Patients with Previously Treated Non-Small Cell Lung</td>
<td>Exelixis</td>
<td>$269,700</td>
<td>$67,425</td>
<td></td>
</tr>
<tr>
<td>Tiger-3: A Phase 3, Open-Label, Multicenter, Randomized Study of Oral Rociletinib (CO-1686) Monotherapy Versus Single-Agent Cytotoxic Chemotherapy in Patients with Mutant EGFR Non-Small Cell Lung Cancer (NSCLC) After Failure of at Least 1 Previous EGFR-DI</td>
<td>Clovis Oncology, Inc.</td>
<td>$19,857</td>
<td>$4,964</td>
<td></td>
</tr>
<tr>
<td>Project Title</td>
<td>Sponsor</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
<td></td>
</tr>
<tr>
<td>------------------------------------------------------------------------------</td>
<td>---------------</td>
<td>----------------</td>
<td>----------------</td>
<td></td>
</tr>
<tr>
<td>PHASE 1/2 STUDY OF PF 06463922 (AN ALK/ROS1 TYROSINE KINASE INHIBITOR) IN PATIENTS WITH ADVANCED NON-SMALL CELL LUNG CANCER HARBORING SPECIFIC MOLECULAR ALTERATIONS</td>
<td>Pfizer</td>
<td>$177,773</td>
<td>$44,443</td>
<td></td>
</tr>
<tr>
<td>A PHASE II, SINGLE ARM, OPEN-LABEL, MULTICENTER, SAFETY AND TOLERABILITY TRIAL WITH NAB-PACLITAXEL (ABRAXANE®) PLUS CARBOPLATIN FOLLOWED BY NAB-PACLITAXEL MONOTHERAPY AS FIRST-LINE TREATMENT FOR SUBJECTS WITH LOCALLY ADVANCED OR METASTATIC NON-SMALL CELL LUNG CANCER (NSCLC) AND BDX004 POSITIVE</td>
<td>Celgene</td>
<td>$179,337</td>
<td>$44,834</td>
<td></td>
</tr>
<tr>
<td>AV-299-14-206, A PHASE 2, MULTICENTER, RANDOMIZED, DOUBLE-BLIND STUDY OF FICLATUZUMAB PLUS ERLOTINIB VERSUS PLACEBO PLUS ERLOTINIB IN PATIENTS WHO HAVE PREVIOUSLY UNTREATED METASTATIC, EGFR-MUTATED NON-SMALL CELL LUNG CANCER (NSCLC) AND BDX004 POSITIVE</td>
<td>Aveo Pharmaceuticals, Inc.</td>
<td>$58,420</td>
<td>$14,605</td>
<td></td>
</tr>
<tr>
<td>A SINGLE-ARM, MULTICENTER, OPEN-LABEL, PHASE 2 STUDY OF NAB®-PACLITAXEL (ABRAXANE®) AND CARBOPLATIN CHEMOTHERAPY PLUS NECITUMUMAB (LY3012211) IN THE FIRST-LINE TREATMENT OF PATIENTS WITH STAGE IV SQUAMOUS NON-SMALL CELL LUNG CANCER (NSCLC)</td>
<td>Eli Lilly</td>
<td>$274,226</td>
<td>$68,557</td>
<td></td>
</tr>
<tr>
<td>PHASE 1/2 OPEN-LABEL STUDY OF PF-06747775 (EPIDERMAL GROWTH FACTOR RECEPTOR T790M INHIBITOR) IN PATIENTS WITH ADVANCED EPIDERMAL GROWTH FACTOR RECEPTOR MUTANT (DEL 19 OR L858R ±T790M) NON-SMALL CELL LUNG CANCER</td>
<td>Pfizer</td>
<td>$235,305</td>
<td>$58,826</td>
<td></td>
</tr>
<tr>
<td>A PHASE 2 STUDY OF TH-4000 IN PATIENTS WITH EGFR MUTANT, T790M-NEGATIVE, ADVANCED NON-SMALL CELL LUNG CANCER PROGRESSING ON AN EGFR TYROSINE KINASE INHIBITOR [TH-CR-601]</td>
<td>Threshold Pharmaceuticals, Inc.</td>
<td>$159,669</td>
<td>$39,917</td>
<td></td>
</tr>
</tbody>
</table>
VILLARUZ, LIZA

<table>
<thead>
<tr>
<th>Study Description</th>
<th>Industry Partner</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>A 3-ARM PHASE 2 DOUBLE-BLIND RANDOMIZED STUDY OF CARBOPLATIN, PEMETREXED PLUS PLACEBO VERSUS CARBOPLATIN, PEMETREXED PLUS 1 OR 2 TRUNCATED COURSES OF DEMCIZUMAB IN SUBJECTS WITH NON-SQUAMOUS NON-SMALL CELL LUNG CANCER (DENALI)</td>
<td>ONCOMED PHARMACEUTICALS</td>
<td>$363,073</td>
<td>$90,768</td>
</tr>
<tr>
<td>A PHASE III, OPEN-Label, RANDOMIZED STUDY OF MPDL3280A (ANTI-PD-L1 ANTIBODY) IN COMBINATION WITH CARBOPLATIN + PACLITAXEL WITH OR WITHOUT BEVACIZUMAB COMPARED WITH CARBOPLATIN + PACLITAXEL + BEVACIZUMAB IN CHEMOTHERAPY-NAÏVE PATIENTS WITH STAGE IV NON-SQUAMOUS NON-SMALL CELL LUNG CANCER</td>
<td>HOFFMAN LA-ROCHE, INCORPORATED</td>
<td>$240,104</td>
<td>$60,026</td>
</tr>
<tr>
<td>TARGETING INHIBITORY RECEPTORS EXPRESSED BY TUMOR-INFILTRATING T CELLS TO REVERSE MELANOMA-INDUCED T CELL DYSFUNCTION</td>
<td>MERCK</td>
<td>$43,750</td>
<td>$10,938</td>
</tr>
</tbody>
</table>

TOTAL INDUSTRY: $13,687,070 $3,478,126
TEACHING ACTIVITIES

Hematology-Oncology Fellowship Program

Edward Chu MD serves as Program Director for the Hematology-Oncology Fellowship program. Vida Passero MD and Melissa Burgess MD continue their roles as Associate Directors of the fellowship program, overseeing the day-to-day fellowship program activities. Dr. Burgess also has a focus on quality improvement and education. James Herman MD is Associate Director, focusing on research and academic development. Rahul Parikh MD PhD is the Internal Medicine Specialty Education Coordinator and serves as the liaison between the Fellowship Program, the Division, and the Department of Medicine.

Several important programs that were initiated in the fellowship program in the preceding year continue to be developed, and they include the following:

- Development of disease-specific outpatient elective rotations, including multidisciplinary clinics.
- Continued refinement of the Fellowship Tracks – Translational Research, Basic Laboratory Research, and Clinical Practice.
- Continuation of a monthly Morbidity and Mortality Conference, where at least one case is presented by the fellow; in addition, fellow quality improvement projects will be presented at these conferences.
- Continuation of the nocturnist program for the BMT and Leukemia inpatient services as of July 1, 2014, which eliminated the involvement of fellows to cover these services in-house overnight.
- Implementation of an every-other-week BMT/Hematologic Malignancies Tumor Board, and continuation of the weekly Benign Hematology Case Conference and Genomic Tumor Board, both of which are driven by fellow presentations.
- Implementation of a BMT-specific lecture series during the BMT clinical rotation.
- Continuation of the weekly Board Review Course to help the fellows prepare for the Medical Oncology and Hematology board exams.
- The Division of Hematology-Oncology is in the process of developing a board review course in hematology-oncology, which will be web-based and will focus on board review questions and in-depth answers. The course is to be completed in the Fall 2016.
- Continuation of the "Meet the Professor" series. Sessions are held quarterly and provide the fellows with a unique opportunity to meet informally with two to three senior faculty members for a Q & A session to discuss career paths, lessons learned, etc.
- Refinement and continuation of the Career Development series. These sessions are held twice annually and comprise two to three sessions focused on answering career-development questions.

School of Medicine

Ahmad Tarhini MD PhD, Associate Professor of Medicine, continues to serve as Director of MED 5715, Neoplasia and Neoplastic Diseases course, a 4-week elective offered to 4th-year medical students. The course’s goal is to expose students to the multidisciplinary approach to cancer diagnosis, patient management, and follow up. It involves didactic lectures as well as practical clinic, pathology, and radiology experiences. In addition, there is a series of journal club sessions and one “Great Debate” involving a controversial topic in Medical Oncology. The course also includes an introduction to clinical research by exposing students to the different phases of clinical trials, including lectures on biostatistical designs, study endpoints, and outcomes. Finally, working in groups with an assigned biostatistician and a mentor (Dr. Tarhini), students are required to develop their own design for a research project that could be a clinical trial or a laboratory experiment to be presented on their final day of the course.
Dr. Tarhini also continued to serve in the role of Director of MED 5831, Medical Oncology Research, which is an elective course offered to 4th-year medical students. The course’s goal is to expose students to the conduct of cutting-edge research on cancer therapeutics and cancer biology. Students actively participate in the undertaking of a clearly defined research project in clinical, translational, or basic cancer research. As a part of this course, one of Dr. Tarhini’s mentees, Lana Hamieh, received the First Place Award in Clinical Research at the 2014 UPCI Scientific Retreat for her efforts in a study on an immune-related gene expression signature that may predict neoadjuvant ipilimumab clinical benefit.

Roy Smith MD, Professor of Medicine, continues to serve as Director of the 2nd-year Hematology Module. This two-week course for the 2nd-year medical students comprises lectures, workshops, virtual case presentations, interactive quizzes, and case conferences. The course is a combined effort with faculty members from the Division of Hematology-Oncology, pediatric hematology, hematopathology, palliative care medicine, and administrative staff from the School of Medicine. After implementing significant improvements in the course last year, Dr. Smith has revised the course again by further modifying the online, recorded lectures. The team-based learning (TBL) exercises have been eliminated and will be replaced by team-based teaching exercises, during which the students will be offered interactive multi-disciplinary seminars on anemia, coagulation, and hematologic malignancies. The live team-based teaching seminars and audience response exercises (AREs) will be presented using TurningPoint software, which is intended to encourage student interaction, hopefully ensuring participation of most, if not all, of the class. The course syllabus has been improved by the addition of new information and format. Dr. Smith has created a question bank of approximately 600 questions, possible answers, and explanations that will be used, in a rolling fashion, for future online quizzes and final examinations. The online quizzes have been revised to assess student progress, encourage student collaboration, and divert students from “studying for the test” so they can learn to think clinically. A special effort has been made to emphasize new developments and the importance of translational research in clinical medicine. The completion of these course revisions is planned over a one-year period.

**Continuing Education**

The Division of Hematology-Oncology is deeply committed to continuing education of physicians and other oncology professionals. On October 11, 2014, the Division hosted the 4th Annual Post-ASCO (American Society of Clinical Oncology) Conference at the Herberman Conference Center for over 90 oncology physicians, nurses, pharmacists, and APPs throughout the tri-state region. The conference is designed for healthcare providers unable to attend the annual meeting held each year in Chicago and to provide summaries of the most noteworthy presentations. Edward Chu MD and Barry Lembersky MD served as course directors, and several Division members served as faculty to provide important and timely reviews.

In February 2015, the Division hosted "A Comprehensive Review of the Most Important Presentations from the 2014 San Antonio Breast Cancer Symposium" for 196 oncology professionals, including those at five off-site locations (Charles Cole, TRCC Erie, Oakbrook, Palmer, and Uniontown). This conference is specifically designed for providers involved in the clinical care of patients with breast cancer and to review the important presentations from the national conference. Shannon Puhalla MD and Barry Lembersky MD served as course directors.

Division faculty were also involved in chairing other CME educational events that were held in Pittsburgh, include the following:

- Weijing Sun MD served as Course Director for the ASCO GI Review 2016, held in March 2016.
- Robert Redner MD continues to serve as Director of the UPCI/UPMC Cancer Center Clinical Grand Rounds Series that is held each Wednesday throughout the year, from Sept. 2015 – June 2016.
- Annie Im MD served as one of the Course Directors and a member of the Planning Committee for the Graft vs. Host Disease National Symposium, held in May 2016.
- Edward Chu MD and Barry Lembersky MD served as Course Directors for the ASCO 2016 Review, held in June.
- Shannon Puhalla MD and Barry Lembersky MD served as Course Directors for the First Annual All-Pittsburgh San Antonio Breast Cancer Symposium Review, held in January 2016.
- Laura M. De Castro MD served as Program Director and faculty member of the Nursing and Associated Health Allies Sickle Cell Disease (SCD) Champion program in December 2015.
- Franklin Bontempo MD served as Course Director and faculty of the Cascade 2016, Advances In Hemostasis & Thrombosis Conference, held on May 6.
Faculty Activities

Leonard J. Appleman MD PhD
- Instructor, Advanced Physical Diagnosis, University of Pittsburgh, 2007-present

Nathan Bahary MD PhD
- Course Director, weekly GI Multidisciplinary Tumor Board, Hillman Cancer Center, 2006-present
- Lecturer, Heme-Onc Fellowship Program, 2015-2016
- Lecturer, Surgical Oncology Fellowship lecture, Chemotherapy series, 2015-2016
- Lecturer, Clinical Oncology Department of Nursing, 2008-present
- Lecturer, PGYI-III / IV oncology rotation, 2008-present
- Clinical Teacher, Consult Service, Inpatient Attending Service, weekly clinic, weekly Journal Club, 2003-present

Julie E. Bauman MD MPH
- Mentor, Dr. G. David Roodman Excellence in Mentoring Award, University of Pittsburgh Hematology/Oncology Fellowship Program, 2015
- Teacher, Medical Oncology Inpatient Attending and Consulting Rounds, University of Pittsburgh Medical Center, 2012-present
- Didactic Lecturer, Upper Aerodigestive Malignancies, Hematology/Oncology Fellowship Program, University of Pittsburgh, 2012-present
- Didactic Lecturer, Selected Oncology Topics, Internal Medicine Residency, University of Pittsburgh, 2012-present
- Didactic Lecturer, Selected Oncology Topics, Neoplasia Course, University of Pittsburgh, 2012-present
- ASCO Leadership Development Program, 2016-2017

Jan H. Beumer PharmD PhD
- Lecturer, MED5715: Neoplasia & Neoplastic Disease: “Preclinical-Phase 0/I”, 2008-present
- Facilitator, PSTP MSELCT 5100 Physician Scientist Training Program-grant writing, 2009-present
- Lecturer, MSCMP3710 and MSPHL3310: Cancer Biology and Therapeutics: “Microtubule inhibitors”, 2011-present
- Lecturer, PHARM3002: Advanced Pharmacokinetics: “Pre-clinical pharmacokinetics”, 2012-present
- Lecturer, MSMPHL2370: Drug Discovery: “Pre-clinical: PK and other Challenges”, 2012-present
- Lecturer, PHARM5218: Drug Development II: “Drug Therapy Individualization-Oncology”, 2013-present
- Course Coordinator, PHARM2001: Pharmaceutical Analysis, 2010-present
- Student Advisor, Mathieu Desaunay, Graduate University of Toulouse (summer student), 2015
- Student Advisor, Julia Matsumoto, Undergraduate, St. John’s University, Queens, New York City/Brazil Scientific Mobility Program (BSMP) (summer student), 2015

Franklin A. Bontempo MD
- Sole Director, CASCADE: Advances in Hemostasis & Thrombosis (formerly the Co-Directed Blood In Motion Conference), held annually in Pittsburgh, 2006-present
- Lecturer, medical students, hematology/oncology fellows, PUH/AGH pathology residents, and immunohematology students, 7M-housestaff at Shadyside, nurses, nurse practitioners and nurse anesthetists, sophomore medical students, 1995-present
- Invited lecturer, conferences, grand rounds, and other hospital systems, 1995-present
- Teacher, ITxM Coagulation Signout Rounds, 2-3 times a week for medical students, residents, fellows from UOP pathology, hematology/oncology, ITxM, AGH, UOP immunohematology, etc., 1995-present
- Teacher, Hematology/Oncology Consult Service for both PUH and Shadyside Hospitals, 1995-present

Michael Boyiadzis MD MHSc
- Didactic Lecturer, Hematology Course, University of Pittsburgh School of Medicine, 2008-present

Adam Brufsky MD PhD
- Lecturer, "Clinical Trials in Cancer: A Primer", Nazarbayev University, Astana, Kazakhstan, October 14, 2015
- Lecturer, "Genomic Tests for Breast Cancer: Fact, Myth and Everything in Between", St. Mary's Hospital Medical Grand Rounds, San Francisco, CA, October 19, 2015
- Lecturer, "Management of Metastatic Breast Cancer in 2015", Inova Hospital Medical Grand Rounds, Fairfax, VA, October 26, 2015
- Lecturer, "Breast Cancer Management in 2016", Rush University Medical Center Oncology Grand Rounds, Chicago, IL, January 20, 2016
- Lecturer, "Update on Management of TNBC", Best of SABCS China, Beijing, China, January 23, 2016
- Lecturer, "Update on Management of Luminal A Breast Cancer", Best of SABCS China, Shanghai, China, January 24, 2016
- Lecturer, "Immunotherapy for Breast Cancer: SABCS 2016 Update", SABCS Review John Theurer Cancer Center, Hackensack University Medical Center, Hackensack, NJ, February 26, 2016
- Lecturer, "CDK4/6 Inhibitors in the Treatment of Breast Cancer", 2016 Annual ACOS Meeting, Delhi, India, April 8, 2016
- Lecturer, "Genomic Assays for Breast Cancer: Fact, Myth and Everything in Between", Oncology Grand Rounds, Hoag Cancer Center, Huntington Beach, CA, April 27, 2016
- Lecturer, "Biotherapies for Breast Cancer", Regional Cancer Center Nursing Conference, Erie, PA, May 20, 2016
- Lecturer, "Bisphosphonates for Breast Cancer: From Prevention of Complications of Bone Metastasis to Prevention of Complications of Bone Metastasis to Prevention of Recurrence", Ohio State University James Cancer Center Conference, Stefanie Spielman Comprehensive Breast Center, Columbus, OH, June 14, 2016
- Lecturer, "Genomic Assays for Breast Cancer: Fact, Myth, and Everything in Between", Medical Grand Rounds Baylor Scott and White, Temple, TX, June 16, 2016

Melissa Burges MD
- Mitch Ross (4th year medical student), 2015-present
- Associate Program Director, Hematology-Oncology Fellowship Program, University of Pittsburgh, 2015-present
Timothy F. Burns MD PhD
- Course Director, Professional Development 2 Course (5120), 2015-present
- Lecturer, Mock Study Section, Professional Development Course (5120), 2013-present
- Lecturer, Lung Cancer, Cancer Biology and Therapeutics Course, 2013-present
- Lecturer, Neoplasia and Neoplastic Diseases Course (MED5715), 2013-present
- Lecture, Thoracic Oncology Clinic, 2012-present
- Laboratory Mentor, PSTP and MSTP student Zachary Yochum (HHMI Scholar), 2013-present
- Research Mentor for Hematology Oncology Fellow Saveri Bhattacharya October, 2014-present
- Research Advisor for Hematology Oncology Fellowship Program (Aju Matthew, Kirsten Boughan, Yana Najjar), June 2013-present
- Thesis Committee, Molecular Pharmacology Program, Emily Harrington, 2014-present
- Advisor, Hematology-Oncology Journal Club, 2013-present
- Advisor, Hematology-Oncology Fellowship Board Review, 2013-present
- Advisor, Hematology-Oncology Case Conference, 2013-present

Lisa H. Butterfield PhD
- Lecturer, Department of Immunology: “Immunology and Human Disease”, MSIMM 3230, (12-20 graduate students/postdocs), 2005-present
- Seminar Organizer, UPCI IMCPL Monthly Continuing Education Session, 2010-present
- Facilitator, MS-1 Immunology in Health and Disease Problem-Based Learning Course, February, 2015, 2016

Edward Chu MD
- Lecturer, Hematology Course (MED5222) for 2nd-Year Medical Students, University of Pittsburgh School of Medicine, 2011-present
- Lecturer, Cancer Biology and Therapeutics Course (MSCMP3710/MSPHL3310), Integrated Program in Biomedical Sciences and Departments of Pathology and Pharmacology, University of Pittsburgh School of Medicine, 2011-present
- Lecturer, Hematology-Oncology Fellowship Lecture Series, University of Pittsburgh School of Medicine, 2011-present
- Lecturer, Neoplasia Course (MED5715) for 4th-Year Medical Students, University of Pittsburgh School of Medicine, 2012-present
- Lecturer, Basics of Personalized Medicine Course (MSCMP3790) for Graduate Students, University of Pittsburgh School of Medicine, 2012-present
- Teacher, Internal Medicine Residents and Fellows, UPMC Shadyside and Hillman Cancer Center, 2011-present
- Mentor, Yael Schenker MD, Assistant Professor, Dept. of Medicine (Investigative Medicine Program), Role of palliative, supportive care in the treatment of cancer patients, 2011-present
- Mentor, Wei Yang, Tsinghua/University of Pittsburgh School of Medicine, role of protein kinase D signaling in colorectal cancer, 2012-present
- Faculty Member, AACR-ASCO Vail Workshop in Clinical Cancer Research, Vail, CO, 2014-present
- Member, NCI/NIH T32 Training Program in Surgical Oncology and Cancer Immunotherapy, 2013-present
- PI, NCI/NIH T32 Training Program in Cancer Therapeutics, 2015-present

Nancy E. Davidson MD
- Lecturer, Cancer Biology & Therapeutics, Pharmacology and Chemical Biology, 2010-present
- Lecturer, ILS Neoplasia & Neoplastic Diseases, 2013-present

Department of Medicine http://www.dom.pitt.edu/hemaonc
Laura De Castro MD
- Teacher: medical students, house officers, and fellows while on service for Hem and Sickle cell consult services, five months/year and weekly in the outpatient clinic, July 2015 to June 2016
- Presenter, 1st-year Medical Student Class: Intro to Being a Physician, University of Pittsburgh, Presentation: “Introduction to Sickle Cell Disease,” August 20, 2015
- Panel Discussion, 1st-year Medical Student Class: Intro. to Being a Physician, University of Pittsburgh, Panel Discussion–Questions and Answers, August 20, 2015
- Presenter, Duke, Sickle Cell Nurse Champion Series, Presentation: “Natural History and End-Organ Damage Complications in Adults with Sickle Cell Disease,” November 17, 2015
- Presenter, 2015-2016 2nd-Year Medical Student Hematology Course, University of Pittsburgh, Team-Based Teaching “Red Blood Cells”, January 7, 2016
- Neoplasia Course, 4th-year Medical Student, Clinical Assignment, Daniel Lesky, March 9, 2016
- Neoplasia Course, 4th-year Medical Student, Clinical Assignment, Myung Sun Choi, March 16, 2016
- Combined Ambulatory Medicine and Pediatrics Course (CAMPC), 3rd-year Medical Student, Clinical Assignment, Connie Chen, June 6, 2016
- Combined Ambulatory Medicine and Pediatrics Course (CAMPC), 3rd-year Medical Student, Clinical Assignment, Shawn Tahata, June 20, 2016
- Director and faculty, Nursing and Associated Health Allies Sickle Cell Disease (SCD) Champion Program, UPMC RNs and APPs, June-August 2016

Albert Donnenberg PhD
- Lecturer, Paul Monga’s Stem Cell Course (Hematopoiesis Lecture), 2015-2016
- Lecturer, Diana Metes’ Cellular Therapy Course (Bone Marrow Transplantation Lecture), 2015-2016
- Lecturer, The “First Monday” Flow Cytometry Seminar Series, 2014-present

Kathleen Dorritie MD
- Lecturer, HLA Typing in Hematopoietic Stem Cell Transplant, 2014-present
- Lecturer, Myelodysplastic Syndrome Fellow Lecture, 2014-present
- Lecturer, Double Hit Lymphoma, Arnold Palmer Cancer Pavilion, 2015
- Instructor, Medical Student Advanced Physical Exam Course, 2015
- Lecturer, UPCI Summer Academy Cameo Lecture, Hematologic Malignancies, 2015
- Lecturer, Medical Student Hematologic Malignancies Team-Based Teaching Seminar Leader, 2015-present
- Lecturer, Medical Student Hematology Course, Hematology Block Coordinator, 2015-present
- Lecturer, Medical Student Neoplasia Course, 2014-present
- Fellow Career Mentor for Hematology/Oncology fellow Janet Retseck, July 2014-present

Jan Drappatz MD
- Teacher, Neuro-Oncology Inpatient Attending Rounds (Medical Students, Fellows, and Residents), 2010-present
- Lecturer, University of Pittsburgh, Neurology Resident Lecture, CNS lymphoma, 1116 LKB, Pittsburgh, PA, August 20, 2015
- Lecturer, Paraneoplastic Syndromes, Neurology Resident Lecture, University of Pittsburgh, Pittsburgh, PA, August 20, 2015
- Presenter, General Tumor Board–Case: 66 year-old male with widely metastatic GBM, Shadyside Hospital, May 25, 2016
- Preceptor, Medical students, 2015-2016
- Preceptor, Resident, 2015-2016
Julien Fourcade PhD
- Mentor, Zoe Futules, University of Pittsburgh undergraduate student, 2015-2016

Deborah L. Galson PhD
- Lecturer, Molecular Pathobiology Course (MSCMP 2740), "Molecular Pathophysiology of Paget's Disease", ~6 students, 2013-present
- PBL Facilitator in Fuel Metabolism (MED 5115), nine MD students, 2015, 2016
- Medical Student Oncology Interest Group Speed Networking Dinner, 2012-present
- Undergraduate Senior Thesis Mentor for Deidra Balchak, Carlow University, Pittsburgh, PA, August 2015-May 2016
- Mentor, UPCI International Summer Academy high school students, 2013-present
- Cancer Biology Site Head, UPCI Summer Academy, Fall 2015-present
- Organizer, Monthly Seminar, Pittsburgh Center for Bone & Mineral Research, 2012-present
- Research Mentor, Konstantinos Lontos, PGY1 Internal Medicine (IST), 2015-present

James Herman MD
- Associate Director, Medical Oncology Fellowship Program, 2014-present
- Supervisor and teacher, Medical Oncology Fellows in thoracic oncology clinic at VAMC, 2015-present
- Lecture for Pharmacology: Cancer Biology and Therapeutics course, 2015-2016

Annie Im MD
- Associate Fellowship Program Director, Hematology/Oncology Fellowship, University of Pittsburgh Cancer Institute, 2013-2016
- Subspecialty Education Coordinator, Department of Internal Medicine Residency, University of Pittsburgh Medical Center, 2014-2016
- Program Evaluation Committee/Core Competency Committee, Hematology/Oncology Fellowship, University of Pittsburgh Cancer Institute, 2013-present
- Lecturer, Hematology Course, University of Pittsburgh School of Medicine, 2012-present
- Lecturer and Moderator, Neoplasia and Neoplastic Disease Course, 2014-present
- Lecturer, Hematology/Oncology Fellowship Didactic series, University of Pittsburgh Cancer Institute, 2013-present
- Lecturer, Internal Medicine Residency Noon Conference series, University of Pittsburgh Medical Center, 2013-present
- Lecturer, UPMC Stem Cell Transplant Course, UPMC CancerCenters, 2015-present

Rachel Jankowitz MD
- Lecturer, "Breast and Ovarian Cancer Risk Assessment Screening and Prevention Strategies", Breast and Ovarian Cancer Risk Assessment Community Education program, Magee-Womens Hospital of UPMC, Pittsburgh, PA, October 28, 2015
- Lecturer, "Breast Cancer", Hematology/Oncology Conference, University of Pittsburgh School of Medicine, Montifiore Hospital, Pittsburgh PA, December 3, 2015
- Lecturer, "Breast Cancer Genetics", Fellows Journal Club and Board Review, University of Pittsburgh School of Medicine, Herberman Conference Center, Pittsburgh, PA, January 15, 2016
- Lecturer, "Breast Cancer Basics", Neoplasia Course Lecture University of Pittsburgh School of Medicine, Magee Womens Hospital of UPMC, Pittsburgh, PA, March 3, 2016
• Lecturer, "Invasive Lobular Carcinoma: An Understudied Breast Cancer Phenotype", Clinical Oncology and Hematology Grand Rounds, University of Pittsburgh School of Medicine, Herberman Auditorium, Pittsburgh, PA, April 6, 2016

Gregory Kato MD
• Instructor, Pitt Medical Students, 2013-present
• Lectures and clinic supervision, Pitt Hematology Fellows, 2013-present
• Lectures and clinic supervision, Hematology Oncology Fellows, Allegheny General Hospital/West Penn Hospital, 2014-present
• Clinic supervision, UPMC Hematology Clinic preceptorships, Chatham University Master of Physician Assistant Studies Program, 2016-present

John M. Kirkwood MD
• Preceptor, "Perspectives in Melanoma", an annual international forum on melanoma, 1997-present
• Faculty lecturer, second-year medical students, Introduction of Medicine Oncology Syllabus, University of Pittsburgh, 1987-present
• Mentor, Charalampos M. Floudas, Masters in Biomedical Informatics, Hellenic GWAS (genome-wide association studies) project with Brenda Diergaarde PhD, 2011-present
• Mentor, Yana Najjar MD, Fellow in Oncology. Mentor in relation to new protocol development and publication of two reviews (one already published) on anti-PD1 therapy, 2014-present
• Mentor, Diwakar Davar MD, Fellow in Oncology, Mentored in relation to new protocol development and publication of 12 reviews and scientific papers, 2012-2016

Joseph E. Kiss MD
• Lecturer, Host Defense Course, Introduction to Medicine, University of Pittsburgh School of Medicine, 1993-present
• Lecturer, Blood Coagulation Teaching Rounds (MED5481), University of Pittsburgh School of Medicine, 1986-present
• Lecturer, University of Pittsburgh trainees in Internal Medicine, Pathology, Hematology/Oncology, and Blood Banking, 1985-present

James J. Lee MD PhD
• Lecturer, Hematology-Oncology Fellowship Lecture Series, University of Pittsburgh School of Medicine, 2012-present
• Lecturer, "Immunotherapy of Colorectal Cancer with Immune Checkpoint Inhibitors", NSABP Foundation Research Collaborators Meeting, Chicago, IL, October 16, 2015
• Lecturer, "Immunotherapy of Microsatellite Instability (MSI)-High Tumor with Immune Checkpoint Inhibitor", Topics in Pediatric Hematology/Oncology/BMT, Children's Hospital of Pittsburgh of UPMC, Pittsburgh, PA, January 5, 2016
• Lecturer, "A Randomized Phase III Study of mFOLFOX6/Bevacizumab Combination Chemotherapy with or without Atezolizumab in the First-Line Treatment of Patients with Microsatellite Instability-High (MSI-H) Metastatic Colorectal Cancer (NRG CR1556)", NCI Colon Task Force, San Francisco, CA, January 22, 2016
• Lecturer, "Update on Clinical Trials for Colorectal Cancer at UPMC/UPCI", UPMC/UPCI GI Oncology Symposium 2016 Highlights and Updates from ASCO GI, SSO, DDW, and ASP, Pittsburgh, PA, March 12, 2016
Frank S. Lieberman MD
- Preceptor, Neurooncology Clinical Rotation for Neurology Residents; neurology and neurosurgery residents, 1999-present
- Preceptor, Neurooncology Component, Outpatient Specialty Clinic for Hematology/Oncology; residents and medical students, 1999-present
- Didactic Lecturer, 3rd year students, Neurology Externship, 1999-present
- Lecturer, Hematology/Oncology Fellows Lecture and Case Conference, Topic: Metastatic CNS Tumors and Management, UPMC Cancer Center, February 19, 2016
- Discussant: Prolonging Survival of Glioblastoma Patients, Medscape, August 5, 2016

Anna Lokshin PhD
- Mentor, Brian Nolen, medical student, 2012-present
- Teacher, Shadyside Hospital Staff, 2012-present

Enrico Novelli MD
- Developer, Weekly Benign Hematology Conference, fellows present cases and faculty attend, 2013-present

Solomon Ofori-Acquah PhD
- Mentor, Amma Owusu-Ansah MD, Assistant Professor of Medicine, 2014-2016
- Mentor, Aisha Walker PhD, Research Assistant Professor, 2014-2016
- Mentor, Samit Ghosh PhD, Research Assistant Professor, 2014-2016
- Mentor, Rimi Hazra PhD, Research Associate, 2014-2016
- Mentor, Chibueze Ihunnah PhD, T32 Postdoctoral Fellow, 2014-2016

Amma Owusu-Ansah MD
- Teacher, Fellows on Hematology inpatient and consult service, 2014-present
- Teaching rounds with medical students, pediatric residents, and pediatric hematology oncology fellows, 2015-2016
- Mentor, residents' clinical notes, 2015-2016
- Preceptor, pediatric residents on inpatient hematology rotation, 2015-2016
- Preceptor, medical students and pediatric residents on inpatient hematology rotation, Children's Hospital of Pittsburgh of UPMC, November 2014-August 2016
- Preceptor, Pediatric Hematology Oncology Fellows on Hematology inpatient and consult service, November 2014-August 2016
- Fellows Lecture, “The Acute Chest Syndrome of Sickle Cell Disease, Children's Hospital of Pittsburgh of UPMC, June 1, 2016

Rahul Parikh MD PhD
- Mentoring Award for Hematology-Oncology, G. David Roodman Excellence in Mentoring Award for Hematology-Oncology fellowship program, 2016
- Mentor, Kathan Mehta, 2014-present
- Thesis Committee, Chad Lawrence for Master's degree in Human Genetics, 2014-present
- Thesis Committee, Hatem Kaseb for Doctoral degree in Human Genetics for research titled "Spheroid-enriched cancer stem-like cells as a model for targeted therapy in oral cancer with distal 11q loss", 2013-present

Vida Almario Passero MD
- Developer, National Oncology Webinar series, Veterans Health Administration, June 2016-present
• Member, UPMC Medical Education, Graduate Medical Education Committee Subcommittee on Accreditation, Review, and Quality (ARQC), July 2014-present
• Associate Director, UPMC Hematology-Oncology Fellowship Program, 2011-present
• Site Director, Hematology-Oncology Fellowship Program, VA Pittsburgh Healthcare System, 2011-present
• Telehealth Champion, VA Pittsburgh Healthcare System, 2010-present
• Oral Anticancer Therapy Protocol, 2011-present
• Chair, Commission on Cancer Care Committee, VA Pittsburgh Healthcare System (VAPHS), 2011-present
• Course Director, UPMC Hematology/Oncology Fellows’ Lecture Series, weekly didactic series for UPMC hematology/oncology fellows, faculty, and other staff members, July 2011-present
• Course Director, UPMC Hematology/Oncology Fellows’ Case Conference Series, weekly table discussion series for UPMC hematology/oncology fellows and faculty members, July 2011-present
• Course Director, VAPHS Updates in Cancer Care, one-day conference for VISN4, VA Pittsburgh Health System, January 9, 2015, February 2016

Shannon Puhalla MD
• Lecturer, Breast Trials, UPCI-UPMC CancerCenter Community Research Network Clinical Trials Kickoff 2015, UPMC Cancer Pavilion, Herberman Conference Center, October 8, 2015
• Lecturer, Updates in Breast Cancer, Cole Hospital Video Conference, October 13, 2015
• Lecturer, FB-11 (Pallet), An Assessment of the Biological and Clinical Effects of Palbociclib (PD0332991) with Letrozole in the Neoadjuvant Treatment of ER+ Primary Breast Cancer, NSABP Industry-Sponsored Research Investigator Meeting, Chicago, IL, October 17, 2015
• Lecturer, Bone Mets. Living Beyond Breast Cancer; 2016 Conference on Metastatic Breast Cancer, Philadelphia, PA, April 9, 2016
• Lecturer, Update of Endocrine Therapy, ASCO Review, UPMC Cancer Center and the University of Pittsburgh Cancer Institute, Pittsburgh, PA, June 25, 2016

Margaret V. Ragni MD PhD
• Lecturer, Host Defense Course, (Hematology 2nd Year Course), 1981-present
• Lecturer, Clinical Pathology Residency Rotation, Coagulation/ Blood Banking Lecture Series, 2015-2016
• Preceptor, Hematology Consultation Rounds, 2015-2016
• Lecturer, Management of Pregnancy in Von Willebrand Disease, Maternal Fetal Medicine Fellow Education Lecture Series, Magee Womens Hospital, Pittsburgh, PA, October 16, 2015
• Lecturer, Hemophilia Cases, West Penn Allegheny Hematology/Oncology Fellowship Program, West Penn Hospital, April 17, 2016
• Lecturer, Hemophilia & Von Willebrand Disease, UPMC UPCI Hematology/Oncology Fellows Lecture Series, July 29, 2016
• Lecturer, Novel Non-Factor Therapeutics for Hemophilia, Hematology Oncology Grand Rounds, University of Pittsburgh, UPCI, September 28, 2016.
• Medical Student Scholarly Research Speed Dating Event, Physician Scientist, October 19, 2015
• Clinic Precepting (HCWP): Parik Padhi MD, AGH Hematology/Oncology Fellow, January 5, 2016
• Clinic Precepting (HCWP): Saveri Bhattacharya MD, Hematology/Oncology Fellow, January 12, 19, 26 2016
• Clinic Precepting (HCWP): Rohit Rao MD, Hematology/Oncology Fellow, February 16, 2016
• Clinic Precepting (HCWP): Tatyana Skylar MD, Hematology/Oncology Fellow, April 26, 2016
• Clinic Precepting (HCWP): Anna Kaminsk, MD, Hematology/Oncology Fellow, May 10, 2016
• Precepting Journal Club: Rehim Remtulla, Hem/Onc Fellow, May 2, 2016
• Precepting Board Review Course (all fellows), May 2, 2016
• PRC Meeting: Fellowship Review Committee, July 28, 2015
• Heme/Onc Fellowship Program Committee Meeting, August 26, 2015
• Heme/Onc Fellowship Advisee Meeting, October 27, 2015
• Heme/Onc Fellowship Clinical Competency Meeting, December 1, 2015,
• Heme/Onc Fellowship Annual Program Evaluation Meeting, April 20, 2016
• Heme/Onc Fellowship Clinical Competency Meeting, May 31, 2016
• T35 Student Research Meetings: five medical students each: July 9, 16, 23 2015
• Precepting Scholarly Projects: Ross Musgrave, December 14, 2015
• Precepting Scholarly Projects: Frey Gugsa, February 15, 2016
• Mentor, Junior Faculty, Craig Seaman MD MS, Assistant Professor of Medicine, 2014-present
• Mentor, Junior Faculty, Lynn Malec MD MS, Assistant Professor of Pediatrics, 2014-present
• Mentor, Resident, Kathan Mehta MD, Medical Resident, Outcomes of Liver Transplant and Thrombocytopenia in Hemophilic Men: HIV+ and HIV-, Analysis NIS data, ASH 2015 manuscript in preparation: T&H 2016, 2015-present
• Mentor, Mariya Apostova MD, Heme Onc Fellowship (AGH), HBP in VWD, Hemophilia Research, abstract, NIS Research, ISTH abstract, manuscript 2014-2016
• Advisor, Krishna Patel MD, Heme Onc Fellowship, Research Track, 2014-2017
• Advisor, Swathi Namburi, MD, Heme Onc Fellowship, Research Track, 2016-2018
• Mentor & Advisor, Shelley Sahu MD, Heme/Onc Fellowship, QI Project: Hemo/VWD Ordersets, 2016-2018
• Advisor, Arpita Ghandi MD, Heme Onc Fellowship, Research Track, 2016-2018
• Mentor, Kathan Mehta MD, Medical Resident, Bleed and Liver Transplant (OLTX) in Hemophilic Men: Oral abstract ASH 2015, ASH Abstract Achievement Award, 2015, Manuscript 2016, in prep, 2015-present
• Mentor, Nicoletta Machin MD, Medical Resident, VWF for Menorrhagia in VWD: Literature Review and Survey: Abst, ASH 2015, Haemophilia 2016 paper; Survey and Literature Review, VWF & PPH, in prep, 2015-present
• Mentor, Jillian Roper Kyle MD, Medical Resident, Menorrhagia in Magee ED, outcomes, disposition; QI Study, comparing & improving outcomes, 2016-present
• Mentor, Medical Student, Shawn Tahata, T35 Grant: Braf-mutations & IFN in Melanoma (Kirkwood) 2015, Scholarly Project, T Regulatory Cells and Inhibitors in Hemophilia, 2016-present
• Mentor, Medical Student (non-Pitt): Umer Nisar, Research Project VWD, 2015-present

Priya Rastogi MD
• Lecturer, Olympia (NSABP B-55/BIG 6-13), A randomized, double-blind, parallel group, placebo-controlled multicenter phase iii study to assess the efficacy and safety of olaparib versus placebo as adjuvant treatment in patients with germline BRAC1/2 mutations and high-risk HER2-negative primary breast cancer who have completed definitive local treatment and neoadjuvant or adjuvant chemotherapy. Breast Cancer Workshop, NRG Oncology Semiannual Meeting, Denver, CO, July 18, 2015
• Lecturer, SWOG 1207/NSABP-53, Phase III randomized, placebo-controlled clinical trial evaluating the use of adjuvant endocrine therapy +/- one year of Everolimus in patients with high-risk, hormone receptor-positive and HER2-negative breast cancer, Breast Cancer Workshop, NRG Oncology Semiannual Meeting, Denver, CO, July 18, 2015
• Lecturer, Penelope (NSABP B-54-I), Phase III study evaluating Palbociclib, a Cyclin-dependent Kinase 4/6 Inhibitor in patient with hormone-receptor-positive, HER2-normal primary breast cancer with high relapse risk after neoadjuvant chemotherapy, Breast Cancer Workshop, NRG Oncology Semiannual Meeting, Denver, CO, July 18, 2015
• Lecturer, Overview of NSABP B-55/BIG 6-13, A randomized, double-blind, parallel group, placebo-controlled Multicenter Phase III Study to assess the efficacy and safety of Olaparib versus placebo as adjuvant treatment in patients with Germline BRAC1/2 Mutations and High-Risk HER2-Negative primary breast cancer who have
completed definitive local treatment and neoadjuvant or adjuvant chemotherapy. NRG Protocols B-52, B-55 and NRG BR003 Workshop, NRG Oncology Semiannual Meeting, Denver, CO, July 18, 2015

- Lecturer, NSABP B-52 Update, A randomized Phase III Trial evaluating pathologic complete response rates in patients with hormone receptor-positive, HER2-Positive, large operable and locally advanced breast cancer treated with neoadjuvant therapy of Docetaxel, Carboplatin, Trastuzumab, and Pertuzumab with or without Estrogen deprivation. NRG Protocols B-52, B-55 and NRG BR003 Workshop, NRG Oncology Semiannual Meeting, Denver, CO, July 18, 2015

- Lecturer, Overview of PALOMA 1 and PALOMA 3 PALLAS (NSABP B-57), Palbociclib Adjuvant Study: A Randomized Phase III trial of Palbociclib with standard adjuvant endocrine therapy versus standard endocrine therapy alone for hormone receptor +/- HER2-Negative breast cancer, NSABP Industry Sponsored Research Investigator Meeting, Chicago, IL, October 17, 2015

- Lecturer, Her 2 Therapy Update, Inaugural All-Pittsburgh San Antonio Breast Cancer Symposium Review, Pittsburgh PA, January 29, 2016

- Lecturer, Novel Approaches for HR+/Her2-Advanced Breast Cancer: Making Informed Clinical Decisions for Your Patients, AXIS Medical Education Webinar, February 26, 2016


- Lecturer, Metastatic Breast Cancer Endpoints, Working Group, NCI Breast Cancer Steering Committee, May 2016

- Lecturer, NSABP B-54/BIG 01-13-Penelope, Phase III Study evaluating Palbociclib (PD-0332991), a Cyclin-Dependent Kinase (CDK) 4/6 Inhibitor in patients with hormone-receptor-positive, HER2-normal primary breast cancer with high relapse risk, Webinar, May 9-10, 2016

- Lecturer, NSABP NRG BR-003, A Randomized Phase III Trial of Adjuvant Therapy Comparing Doxorubicin Plus Cyclophosphamide Followed by Weekly Paclitaxel with or without Weekly Carboplatin in Women with Node-Positive or High-Risk Node-Negative Triple Negative Invasive Breast Cancer, NRG Oncology Semiannual Meeting, Dallas, TX, July 15, 2016

- Lecturer, SWOG 1207/NSAPB-53, Phase III Randomized, Placebo-Controlled Clinical Trial Evaluating the Use of Adjuvant-Endocrine Therapy +/- One Year of Everolimus in Patients with High-Risk, Hormone-Receptor-Positive and HER2-Negative Breast Cancer, NRG Oncology Semiannual Meeting, Dallas, TX, July 15, 2016

Robert L. Redner MD

- Director, UPCI Clinical Oncology and Hematology Grand Rounds, 2006-present
- Lecturer, “Acute Leukemia”, Team-based Learning, Hematology Course, 2010-present
- Lecturer, “Leukemia”, Neoplastic Diseases, 2010-present
- Mentor, PTSP, 2011-present
- Course Director, Med 5480 Senior Elective in Heme/Onc, 2009-present
- Course Director, MED 5831 Medical Oncology Research, 2013-present
- FAST Advisor, Class of 2019, Kyle Atcheson, Jamie Huynh, Ronak Jani, Leah Koenig, and Phillip Wagner, 2016-2019
- Lecturer, Journal Club, March 2016, April 2016
- Moderator, Heme/Onc Board Review, March-April 2016
- Faculty Advisor, Shelley Sahu PGY5, Aprita Gandhi PGY 4, 2015-present
- Fellow Lecture, “Anemia”, August 2015
- Fellow Lecture, “CML”, March 2016
- Fellow Lecture, “APL”, March 2016
- Clinical Teaching, Monday Clinic, 2015-2016
John C. Schmitz PhD

- Continued training of two postdoctoral associates in experimental design and techniques, and scientific organization and writing, 2011-present
- Trained Jessica Cheung, a University of Pittsburgh medical student, with skills related to her summer research project, 2015

Warren D. Shlomchik MD PhD

- Mentor, Shen Kexin, Tsinghua Scholar, rotation through lab, August 31-September 11, 2015
- Mentor, Shao Enhua, Tsinghua Scholar, rotation through lab, September 14-September 25, 2015
- Research Mentor, Arpita Gandhi MD, Heme-Onc Fellow, April 2016-present
- Mentor, Paola Doris Augelo Vignali, medical student, rotation through lab, June 2016-August 2016

Roy E. Smith MD

- Teacher, medical students, house officers, and fellows while on service, 2015-2016
- Mentor, Combined Ambulatory Medicine and Pediatrics Course (CAMPC), 3rd-year Medical Student, Clinical Assignment, Mitchell Ross, August 2015
- Lecturer, Acute Management Lecture Series for Internal Medicine Residents, “DIC”, VA Hospital, Pittsburgh, PA, November 25, 2015
- Pharmacy teaching, Collaboration between physicians, nurses, and pharmacists, UPMC, Pittsburgh, PA, January 22, 2016
- Presenter, “TBD (AntiXa for heparin monitoring and presently setting up educational programs for the transition)”, Mercy Medical Grand Rounds, UPMC Mercy, Pittsburgh, PA, March 3, 2016
- Lecturer, Neoplasia Course, University of Pittsburgh, Clinical Assignment, Kayllie Weng, Pittsburgh, PA, March 15, 2016
- Lecturer, “Inpatient Monitoring of UFH”, Hospitalist Education Series, UPMC, Pittsburgh, PA, March 16, 2016
- Lecturer, Neoplasia Course, University of Pittsburgh, Clinical Assignment, Kathleen Engeln, Pittsburgh, PA, March 22, 2016
- Lecturer, Neoplasia Course, University of Pittsburgh, Clinical Assignment, Allana White, Pittsburgh, PA, March 23, 2016
- Poster Presentation, "Anti-Xa for the Monitoring of Unfractionated Heparin.", with Whitman-Purves E, Pae D, DiNella J, Coons J, Miller T, Althouse A, Schmidhofer M, Smith R, Department of Medicine, University of Pittsburgh, Pittsburgh, PA, May 24, 2016
- Presenter, "Discuss perioperative management of anticoagulation", Department of Otolaryngology Grand Rounds, UPMC, Pittsburgh, PA, June 8, 2016
- Director, Hematology Course, 2nd-Year medical students, University of Pittsburgh, Pittsburgh, PA, 2015-2016

Richard Steinman MD PhD

- Director, Medical Scientist Training Program, 2012-present
- Director, Physician Scientist Training Program, 2008-present
- Course Director and Teacher, PSTP 5010 Professional Development 2 Course, Research Methods and Analysis, 2009-present
- Course Director and Teacher, MSELCT 5100 Professional Development 1 Course, 2010-present
- Course Director and Teacher, MSTP 5983 Ethics, 2008-present
- Course Director and Teacher, MSTP 5290 "Research Basis of Medical Knowledge, a weekly year-long course for MSTP and PSTP students focused on analysis of basic and translational science literature, 1998-present
- Academy of Master Educators, 2006-present
- Philip Troen Excellence in Medical Student Research Mentoring Award, 2015
Weijing Sun MD
- Organizer, Annual GI Cancer Symposium, UPMC/UPCI, 2013-present
- Grand Rounds Speaker, “Multidisciplinary Management of Biliary Cancer”, Division of Hematology-Oncology, 2012-present
- Course Director, GI Cancer Symposium, “Current Trends in Pancreatic & Hepatobiliary Malignancies”, University of Pittsburgh, April 4, 2015
- Participant, weekly Hematology-Oncology Tumor Board, 2012-present
- Teacher, Hematology-Oncology Fellows, outpatient and consult service rotations, 2012-present
- Lecturer, Neoplasia and Neoplastic Diseases Course (MED5715), 2014-present

Ahmad Tarhini MD PhD
- Course Director, Medical Oncology Research (MED5831), 2010-present
- Course Director, Neoplasia & Neoplastic Disease (MED 5715), 2011-present
- Course Director/Leader, Oncology Course, University of Pittsburgh/Nazarbayev University School of Medicine, 2016-present
- Lecturer, Neoplasia & Neoplastic Disease Course (MED 5715), 2006-present
- Research Mentor, individual pre- and post-doctoral students, 2006-present
- Research Mentor, Hem-Onc Fellows, 2006-present
- Research Mentor, Graduate Students, 2006-present
- Research Mentor/Advisor (PGY1,2,3)
- Teacher, inpatient rounds (PGY 1,2,3,4,5,6) Hem/Onc inpatient service lectures as part of house-staff teaching lectures, 2006-present
- Lecturer, Hematology-Oncology Fellows, Fellows Lecture Series, 2006-present
- Lecturer, Surgical Oncology Fellows, Fellows Lecture Series, 2006-present
- Training, mentoring and monitoring High Dose Interleukin-2 inpatient therapy (PGY 4,5,6), 2006-present

Darcy Thull MS
- Teacher, Medical Students, UPSOM-1: Molecular and Human Genetics, University of Pittsburgh School of Medicine, October 30, 2015
- Teacher, Medical Students, UPSOM-1: Molecular and Human Genetics, University of Pittsburgh School of Medicine, November 2, 2015
- Teacher, Residents and Clinical Fellows, Magee-Womens OB/GYN Residents and Gynecologic Oncology Fellows didactic lecture; Genomics, Research and Informatics in Pathology (GRIP) course for second year pathology residents, Genetic Counseling and Testing for Hereditary Cancer Predisposition, September 24, 2015
- Precepting, Cancer genetic counseling clinic, Genetic Counseling students, Medical Genetics and Molecular Diagnostics fellows, 2015-2016
- Presentation, Annual case presentations, Magee-Womens Hospital Breast Cancer Conference, Cancer Family Syndromes Relevant to the OB Generalist, OB/GYN Grand Rounds Magee-Womens Hospital of UPMC, September 15, 2015
- Mentor, genetic counseling graduate student, 2015-2016

Liza Villaruz MD
- Moderator, Fellow’s Journal Club, 2012-present
- Lecturer, MED 5715 Neoplasia Course, MS4 students, “Risk Factor/Basics of Lung Cancer”, 2011-present
- Lecturer, Fellow Lecture Series, 2012-present
- Medical Oncology Moderator, Thoracic Oncology Tumor Board, 2015-present
Lazar Vujanovic PhD
- Lead Presenter, University of Pittsburgh Cancer Institute Cancer Biology and Immunology Journal Club (twice yearly), 2006-present

Donald V. Woytowitz Jr. MD
- Preceptor, 22 Residents in Clinic, Hematology/Oncology Outpatient Rotation and Hematology/Oncology Exposure Rotation, July 2015-June 2016
- Teacher, medical students, house officers, and fellows while on service in the outpatient clinic, July 2015-June 2016
- Preceptor, Ananth Arjunan, 2015-2016 1st-Year Fellow, July 2015-December 2015
- Preceptor, Katerina Ancevski, 2015-2016 1st-Year Hem/Onc Fellow, August 2015
- Preceptor, Rahim Remtulla, 2nd-Year Hem/Onc Fellow, August 2015
- Lecturer, “Cytopenias - meaning leukopenia and thrombocytopenia and not anemia”, Fellow's Lecture, UPMC Division of Hematology-Oncology Fellows Program, September 18, 2015
- Moderator, Fellow's Case Conference, UPMC Division of Hematology-Oncology Fellows Program, September 18, 2015
- Preceptor, Medical Student, Michael Macklin, October 28, 2015
- Preceptor, Janet Retseck, 2nd-Year Hem/Onc Fellow, December 2015
- Preceptor, Saveri Bhattacharya, 2nd-Year Hem/Onc Fellow, January 2016
- Lecturer, Neoplasia Course, University of Pittsburgh, March 2016
- Preceptor, Gloria Minella, 2nd-Year Hem/Onc Fellow, April 1, 2016
- Presenter, 24th Annual Clinical Update in Geriatric Medicine Conference, Pittsburgh, PA, April 7-8, 2016

Hassane Zarour
- Facilitator, Introductory Problem Based Learning (PBL), (MS-1) Immunology and Health Disease, MED5116, 2003-present
- Lecturer, Hematology/Oncology fellows and medical staff (Shadyside Hospital), 2004-present
- Lecturer, Cancer Vaccines and Immunotherapy of Cancer, Neoplasia Course (MS-4), 2008-present
- Mentor, Zoe Futules, Undergraduate Student, Biological Sciences, 2014-2016
- Mentor, Carmine Menna, Undergraduate Student, Biological Sciences, 2016-present
## Fellowship Program

<table>
<thead>
<tr>
<th>Current Fellow</th>
<th>Medical School</th>
<th>Residency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambros Tadeu</td>
<td>Fundacao Faculdade de Ciencias Medicas de Porto Alegre</td>
<td>University of Miami / Jackson Memorial Hospital</td>
</tr>
<tr>
<td>Ancevski Katerina</td>
<td>University of Virginia School of Medicine</td>
<td>University of Wisconsin Hospital and Clinics</td>
</tr>
<tr>
<td>Arjunan Ananth</td>
<td>Texas A&amp;M Health Science Center College of Medicine</td>
<td>Washington University/Barnes-Jewish Hospital</td>
</tr>
<tr>
<td>Bhattacharya Saveri</td>
<td>Touro University College of Osteopathic Medicine</td>
<td>UPMC</td>
</tr>
<tr>
<td>Boughan Kirsten</td>
<td>Lake Erie College of Osteopathic Medicine</td>
<td>University of Drexel / Hahneman University Hospital</td>
</tr>
<tr>
<td>Davar Diwakar</td>
<td>Yong Loo Lin School of Medicine</td>
<td>UPMC</td>
</tr>
<tr>
<td>Gandhi Arpita</td>
<td>Rutgers New Jersey Medical School</td>
<td>Rutgers University-New Jersey Medical School</td>
</tr>
<tr>
<td>Geiger Jessica</td>
<td>Wright State University Boonshoft School of Medicine</td>
<td>Mayo School of Graduate Medical Education</td>
</tr>
<tr>
<td>Minella Gloria</td>
<td>George Washington Univeristy School of Medicine and Health Sciences</td>
<td>UPMC</td>
</tr>
<tr>
<td>Najjar Yana</td>
<td>American University of Beirut Faculty of Medicine</td>
<td>The Cleveland Clinic</td>
</tr>
<tr>
<td>Namburi Swathi</td>
<td>Rutgers, Robert Wood Johnson Medical School</td>
<td>George Washington University</td>
</tr>
<tr>
<td>Nguyen Khanh</td>
<td>Medical College of Georgia</td>
<td>University of Virginia</td>
</tr>
<tr>
<td>Parsi Hooman</td>
<td>Tehran University of Medical Sciences</td>
<td>University of Cincinnati</td>
</tr>
<tr>
<td>Pastorini Filho Vitor</td>
<td>Universidade Federal da Bahia</td>
<td>University of Miami / Jackson Memorial Hospital</td>
</tr>
<tr>
<td>Patel Krishna</td>
<td>Texas A&amp;M Health Science Center College of Medicine</td>
<td>Mayo School of GME</td>
</tr>
<tr>
<td>Remtulla Rahim</td>
<td>Drexel University College of Medicine</td>
<td>National Naval Medical Center</td>
</tr>
<tr>
<td>Retseck Janet</td>
<td>Ohio State University College of Medicine</td>
<td>University of Wisconsin</td>
</tr>
<tr>
<td>Sahu Shelley</td>
<td>Northwestern University The Feinberg School of Medicine</td>
<td>University of Maryland Medical Center</td>
</tr>
<tr>
<td>Somasundaram Ashwin</td>
<td>University of Texas Southwestern Medical Center at Dallas Southwestern Medical School</td>
<td>UPMC</td>
</tr>
<tr>
<td>Thomas Roby</td>
<td>American University of the Caribbean School of Medicine</td>
<td>West Virginia University</td>
</tr>
<tr>
<td>Whitman Purves Emily</td>
<td>Drexel University College of Medicine</td>
<td>UPMC</td>
</tr>
<tr>
<td>Yee Melissa</td>
<td>Drexel University College of Medicine</td>
<td>UPMC</td>
</tr>
</tbody>
</table>

## Departing Fellow

<table>
<thead>
<tr>
<th>Current Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambros Tadeu Essentia Health-Fargo, Fargo, North Dakota</td>
</tr>
<tr>
<td>Boughan Kirsten MSKCC, New York, New York</td>
</tr>
<tr>
<td>Davar Diwakar UPMC Academic Faculty Member</td>
</tr>
<tr>
<td>Geiger Jessica Taussig Cancer Institute, Cleveland, Ohio</td>
</tr>
<tr>
<td>Nguyen Khanh Yale Cancer Center-Smilow Cancer Care Center-Derby, Derby, Connecticut</td>
</tr>
</tbody>
</table>

Department of Medicine [http://www.dom.pitt.edu/hemaonc](http://www.dom.pitt.edu/hemaonc)
Fellow Publications


Geiger JL, Bauman JE. Chemotherapy in Head and Neck Cancer. 2nd Edition of Decision Making in Otolaryngology, Edited by Alper, Myers and Eibling. Accepted.


Book chapter


Published Abstracts


Department of Medicine http://www.dom.pitt.edu/hemaonc

Presentations

Geiger JL. Novel Therapies and Clinical Trials in Advanced Thyroid Cancer. Presented at: Advanced Thyroid Tumor Board, Department of Endocrinology, UPMC. Pittsburgh, PA, April 20, 2016.


Geiger JL. Head and Neck Cancers. Presented as part of medical education curriculum for fourth year-students in University of Pittsburgh Medical School, March 16, 2016.


Yana G. Najjar. Updates on a Dose Seeking and Efficacy Study of Pembrolizumab and Vemurafenib in BRAF mutant Melanoma. Regional Melanoma Translational Research Consortium (RMTRC), Seven Springs, PA, February 2016

Yana G. Najjar. Dose Seeking and Efficacy Study of Pembrolizumab and Vemurafenib in BRAF mutant Melanoma. Regional Melanoma Translational Research Consortium (RMTRC), Cleveland, OH, September 2015

Namburi S, et al. Effect of chemoprevention uptake on mammographic density over time in women at high risk for breast cancer. San Antonio Breast Cancer Symposium, Accepted 2015


Abstracts

Honors and Awards

Davar, Diwakar. 2016 Conquer Cancer Foundation/Genentech BioOncology™ Young Investigator Award (YIA), July 2015

Davar, Diwakar. First Place Director's Award, “Clinical Sciences”, University of Pittsburgh Cancer Institute Scientific Retreat, June 2015


Najjar, Yana. Trial Funding, $990,000: Industry funding of an investigator initiated phase I/II trial of vemurafenib plus pembrolizumab in BRAF mutant melanoma, 2015-2016

Thomas, Roby. Outstanding House Staff Award, West Virginia University School of Medicine, 2015

Thomas, Roby-Margaret J. Albrink Research Award, West Virginia University School of Medicine, 2015
CLINICAL CARE

The Division of Hematology-Oncology comprises 38 clinical faculty and 21 research faculty who are dedicated to excellence in patient care, teaching the next generation of physician-scientists, and conducting innovative cancer-focused basic, clinical, translational, and population research. In addition, there are 77 members of the voluntary faculty, the majority of whom are employed by UPMC CancerCenter and practice in a UPMC CancerCenter site in western Pennsylvania and/or eastern Ohio.

Inpatient Service

In FY16, the Division faculty had the opportunity to focus on their clinical and translational research due to a FY13 redistribution of inpatient services at UPMC Shadyside. As projected, the Division realized a decrease in inpatient WRVUs over the past 2 years. In 2016, inpatient WRVU’s remain constant from FY15, but a 2.4% increase in outpatient WRVUs was recognized. Total WRVU’s billed for FY16 were 80,112 (excluding psycho-oncology faculty and staff).

The three inpatient oncology/solid-tumor attending services at UPMC Shadyside are shared with our colleagues from the UPMC CancerCenter. Two of these inpatient services are staffed by Advanced Practice Providers (APPs) and Nocturnists, while the third service is the housestaff teaching service supported by Fellows, Internal Medicine Residents, and Nocturnists. A total of 4,686 patient admissions were seen by these three inpatient services. This number of admissions represents a 15% increase over FY15. This number does not include oncology admissions to Magee-Womens Hospital of UPMC, where patients with breast cancer are admitted to a dedicated inpatient hospitalist service. These patients are then seen by the inpatient oncology consult service, which is staffed by members of our Division.

Newly established in FY15 was an inpatient service created specifically to care for patients with sickle cell anemia. This service continues to be provided at UPMC Presbyterian, Magee-Womens Hospital of UPMC, and UPMC Shadyside. Drs. Enrico Novelli, Laura De Castro, and Gregory Kato are supported by APP’s and Hematology/Oncology fellows to provide this service.

In addition to the attending services, there are 10 solid tumor oncology and hematology consult services:

- Bone Marrow and Stem Cell transplant at UPMC Shadyside
- Hematologic Malignancy consults at UPMC Shadyside
- Hematologic Malignancy consults at UPMC Presbyterian
- Benign Hematology consults at UPMC Presbyterian and Magee-Womens Hospital of UPMC
- Benign Hematology consults at UPMC Shadyside
- Sickle Cell consults at Presbyterian and Magee-Womens Hospital of UPMC
- Solid Tumor Oncology consults at UPMC Shadyside
- Solid Tumor Oncology consults at UPMC Presbyterian and Magee-Womens Hospital of UPMC
- Neuro-Oncology consults at UPMC Shadyside, UPMC Presbyterian, and Magee-Womens Hospital of UPMC.
- Hematology/Oncology consults at the Pittsburgh VA Medical Center

Outpatient Service

Division faculty continue to have robust outpatient clinical practices at the Hillman Cancer Center and Magee-Womens Hospital of UPMC. Both are hospital-based clinics and, as of June 1, 2013, both outpatient services are under the umbrella of Magee-Womens Hospital of UPMC.

Department of Medicine

http://www.dom.pitt.edu/hemaonc
Since October 2013, faculty based at the Hillman Cancer Center have used Aria, an electronic medical record (EMR). This system was designed specifically for use by oncologists and allows for the ordering and dispensing of chemotherapeutic agents. At Magee-Womens Hospital, our breast cancer medical oncologists use Epic, which is the EMR used by the rest of the UPMC clinical programs.

**Benign Hematology**

The Division has a benign hematology section with over 10 physician-scientists and research investigators, and this group is now considered to be one of the larger benign hematology programs in the United States. As a result of recent growth, grant funding and participation in clinical trials has increased, and a continued positive trajectory over the next few years is expected. In order to effectively manage the increase in hematology research activity, a consolidated effort by our colleagues at UPCI and our hematologists established a research infrastructure that provides research staff, clinical, and budgetary support for grants and clinical trials.

A close collaboration with the Institute for Transfusion Medicine continues as efforts focus on project planning and implementation of the Benign Hematology Center of Excellence. This Center will provide comprehensive outpatient clinical services for the entire spectrum of benign hematologic disorders and conduct state-of-the-art clinical and translational research in this population with emphasis on Hemophilia and Sickle Cell disease. In parallel to the planning and development phases of the project, patient-specific treatment plans, protocols, and guidelines of care have been established and delivered to patients within an outpatient, acute Day Hospital care model, currently housed in the Hillman Cancer Center. These clinical improvement and quality assurance interventions have been paired with direct patient compliance efforts, specifically in the area of sickle cell disease and hydroxyurea. As a main focus of the benign hematology clinical program, protocols have been developed and staff has been hired to support these efforts.

The Benign Hematology Section has increased its role in the trainees’ and fellows’ education by developing an extensive core-lecture curriculum and establishing a weekly case-based meeting. These didactic conferences, along with more active participation of the benign hematology faculty in all aspects of medical student, resident, and fellow training, will ensure enhancement of the pool of “bench-to-bedside clinical researcher” as well as the “system-based clinical hematologist”.

**Psycho-Oncology Program**

The Section of Psycho-oncology, under the direction of Kevin Patterson MD, continues to advance its mission to extend supportive care services more broadly throughout the UPMC Cancer Center network, improving integration and access to care. This group provides clinical services to cancer patients and their families, which include management of depression and anxiety, stress, sleep disorders, smoking cessation, cognitive change, sexuality and body image, and end-of-life planning and support. Outpatient work at the Hillman Cancer Center, as well as at UPMC Passavant and UPMC McKeensport, has seen continued growth, and inpatient consult coverage at UPMC Shadyside and Magee-Womens Hospital continues to be active. The section underwent some staffing changes this year, successfully adding a full-time clinical/research psychologist and a half-time psychiatric nurse practitioner to the current pool of two psychiatrists, four clinical psychologists, and a psychiatric nurse. The nurse practitioner position is shared with Palliative Care, and has allowed the section to better integrate supportive care services and to provide more consistent inpatient consult coverage. Plans are in place to hire an additional nurse practitioner who will also work closely with the Palliative Care Service.

The Section of Psycho-Oncology works in close partnership with the UPCI Biobehavioral Oncology Research Program, led by Dana Bovbjerg PhD, to identify opportunities for clinical and translational research and to develop innovative care approaches. Ongoing research in areas as diverse as smoking cessation and other behavioral change models, patient-reported outcomes, and psycho-neuroimmunology have led to increasing collaborations within the health system here in Pittsburgh and nationally. These collaborations are expected to increase as our new faculty recruitment,
Robert Ferguson PhD, builds on his success in research related to cognitive function and cognitive recovery in cancer patients.

**Faculty Recruitment**

In FY 16, the Division continued to concentrate on recruiting physician-scientists to meet strategic needs in several key areas. Notable faculty additions are listed below.

- Diwakar Davar MD joined the faculty as an Assistant Professor of Medicine specializing in melanoma
- Robert Ferguson PhD joined the faculty as a Clinical Scientist specializing in behavioral medicine
Clinic Locations

<table>
<thead>
<tr>
<th>Location</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioral Medicine in Oncology</td>
<td>Magee-Womens Hospital of UPMC, 300 Halket Street, Ground Floor, Suite 0704, Pittsburgh, PA 15213, USA</td>
</tr>
<tr>
<td>Women's Cancer Center at Magee-Womens Hospital of UPMC</td>
<td>Magee-Womens Hospital of UPMC, 300 Halket Street, Suite 4628, Pittsburgh, PA 15213, USA</td>
</tr>
<tr>
<td>Breast Cancer Specialty Care Clinic</td>
<td>Magee-Womens Hospital of UPMC, 300 Halket Street, Suite 2601, Pittsburgh, PA 15213, USA</td>
</tr>
<tr>
<td>Behavioral Medicine at Hillman Cancer Center</td>
<td>5115 Centre Avenue, Suite 140, Pittsburgh, PA 15232, USA</td>
</tr>
<tr>
<td>Hematology/Oncology at Hillman Cancer Center</td>
<td>5115 Centre Avenue, Pittsburgh, PA 15224, USA</td>
</tr>
</tbody>
</table>

CLINICAL QUALITY IMPROVEMENT INITIATIVES

Over the past year, significant efforts have been focused on quality improvement as it relates to patient care. The admission process for cancer patients from the ED, clinic, home, etc. was dramatically revamped due to curriculum changes in the fellowship program, which had led to increased time to admission and frustration. Education of various hospital staff, and primarily the ED, was implemented, including a 3-pager system. These efforts have resulted in a significant improvement in the flow of patient admissions from the ED as well as decreased admissions times for our patients.

Another area for improvement related to the effective transfer of cancer patients from the ICU to the regular nursing floor. A new paging process was instituted that added “warning” pages to the admitting teams and direct phone calls were utilized between the ICU and oncology teams. These two initiatives have resulted in a significant improvement in the number of “missed” patients.
FACULTY

Faculty in Core Divisions
Fiscal Year 2014-2016

<table>
<thead>
<tr>
<th>Division</th>
<th>FY 2003 (Base Year)</th>
<th>FY 2014</th>
<th>FY 2015</th>
<th>FY 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hematology/Oncology</td>
<td>44</td>
<td>55</td>
<td>58</td>
<td>61</td>
</tr>
</tbody>
</table>

Note: Includes University of Pittsburgh full-time faculty and volunteer faculty who have a UPP appointment and excludes research associates, adjunct faculty and emeritus faculty.

Current Hematology/Oncology Faculty

Full-Time Faculty

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Degree</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abecassis</td>
<td>PhD</td>
<td>Research Associate</td>
<td></td>
</tr>
<tr>
<td>Agha</td>
<td>Mounzer E. MD</td>
<td>Visit</td>
<td></td>
</tr>
<tr>
<td>Alouei-El-Azher</td>
<td>Mounia PhD</td>
<td>Research Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Amin Ali</td>
<td>Rada PhD</td>
<td>Research Associate</td>
<td></td>
</tr>
<tr>
<td>Amjad</td>
<td>Ali imran MD</td>
<td>Adjunct Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Appleman</td>
<td>Leonard J. MD, PhD</td>
<td>Associate Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Attar</td>
<td>Myriam PhD</td>
<td>Research Associate</td>
<td></td>
</tr>
<tr>
<td>Bahary</td>
<td>Nathan MD, PhD</td>
<td>Associate Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Bardelli</td>
<td>Alberto PhD</td>
<td>Adjunct Associate Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Bauman</td>
<td>Julia E. MD</td>
<td>Associate Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Bhattacharya</td>
<td>Chitralekha PhD</td>
<td>Research Associate</td>
<td></td>
</tr>
<tr>
<td>Bontempo</td>
<td>Franklin A. MD</td>
<td>Associate Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Boyiadzis</td>
<td>Michael MD</td>
<td>Associate Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Brufsky</td>
<td>Jill Andrea PharmD</td>
<td>Adjunct Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Brufsky</td>
<td>Adam M. MD, PhD</td>
<td>Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Burgess</td>
<td>Melissa A. MD</td>
<td>Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Burns</td>
<td>Timothy F. MD, PhD</td>
<td>Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Butterfield</td>
<td>Lisa H. PhD</td>
<td>Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Chatterjee</td>
<td>Suman PhD</td>
<td>Research Associate</td>
<td></td>
</tr>
<tr>
<td>Chauvin</td>
<td>Joe-Marc PhD</td>
<td>Research Associate</td>
<td></td>
</tr>
<tr>
<td>Chu</td>
<td>Edward MD</td>
<td>Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Davidson</td>
<td>Nancy E. MD</td>
<td>Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>DeCastro</td>
<td>Laura M. MD, PhD</td>
<td>Visiting Associate Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Donnenberg</td>
<td>Albert D. PhD</td>
<td>Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Dorritte</td>
<td>Kathleen A. MD</td>
<td>Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Farah</td>
<td>Rafic J. MD</td>
<td>Research Instructor in Medicine</td>
<td></td>
</tr>
<tr>
<td>Ferguson</td>
<td>Robert J. PhD</td>
<td>Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Fourcade</td>
<td>Julien J. PharmD</td>
<td>Research Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Galson</td>
<td>Deborah L. PhD</td>
<td>Associate Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Ghosh</td>
<td>Samit PhD</td>
<td>Research Assistant Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Goff</td>
<td>Julie P. MS</td>
<td>Research Associate</td>
<td></td>
</tr>
<tr>
<td>Herman</td>
<td>James G. MD</td>
<td>Visiting Professor of Medicine</td>
<td></td>
</tr>
</tbody>
</table>

http://www.dom.pitt.edu/hemaonc
<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Degree</th>
<th>Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Im</td>
<td>Annie</td>
<td>P. MD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Jankowitz</td>
<td>Rachel</td>
<td>C. MD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Johnson</td>
<td>Daniel</td>
<td>E. PhD</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Kato</td>
<td>Gregory</td>
<td>J. MD</td>
<td>Visiting Professor of Medicine</td>
</tr>
<tr>
<td>Kim</td>
<td>Tae Won</td>
<td>MD</td>
<td>Adjunct Professor of Medicine</td>
</tr>
<tr>
<td>Kirkwood</td>
<td>John</td>
<td>M. MD</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Kiss</td>
<td>Joseph</td>
<td>E. MD</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Lee</td>
<td>James</td>
<td>J. MD, PhD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Lee</td>
<td>Byeong-Chel</td>
<td>PhD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Levina</td>
<td>Vera</td>
<td>V. PhD</td>
<td>Research Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Li</td>
<td>Changyou</td>
<td>PhD</td>
<td>Research Associate</td>
</tr>
<tr>
<td>Li</td>
<td>Yingjian</td>
<td>MD</td>
<td>Research Associate</td>
</tr>
<tr>
<td>Liu</td>
<td>Haizhou</td>
<td>PhD</td>
<td>Research Associate</td>
</tr>
<tr>
<td>Lokshin</td>
<td>Anna</td>
<td>E. PhD</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Low</td>
<td>Carissa</td>
<td>A. PhD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Novelli</td>
<td>Enrico</td>
<td>M. MD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Ofori-Acquah</td>
<td>Solomon</td>
<td>F. PhD</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Owusu-Ansah</td>
<td>Amma</td>
<td>T. MD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Parikh</td>
<td>Rahul</td>
<td>A. MD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Poslusznyc</td>
<td>Donna</td>
<td>M. PhD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Puhalla</td>
<td>Shannon</td>
<td>L. MD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Ragni</td>
<td>Margaret</td>
<td>V. MD</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Rastogi</td>
<td>Priya</td>
<td>MD</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Redner</td>
<td>Robert</td>
<td>L. MD</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Robertson</td>
<td>Linda</td>
<td>B. PhD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Schmidt</td>
<td>John</td>
<td>E. PhD</td>
<td>Adjunct Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Schmitz</td>
<td>John</td>
<td>C. PhD</td>
<td>Research Associate Professor of Medicine</td>
</tr>
<tr>
<td>Seaman</td>
<td>Craig</td>
<td>D. MD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Sehgal</td>
<td>Alison</td>
<td>R. MD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Sen</td>
<td>Malabika</td>
<td>PhD</td>
<td>Research Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Shlomchik</td>
<td>Warren</td>
<td>D. MD</td>
<td>Visiting Professor of Medicine</td>
</tr>
<tr>
<td>Smith</td>
<td>Roy</td>
<td>E. MD</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Socinski</td>
<td>Mark</td>
<td>A. MD</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Steinman</td>
<td>Richard</td>
<td>A. MD, PhD</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Sun</td>
<td>Quanhong</td>
<td>PhD</td>
<td>Research Instructor in Medicine</td>
</tr>
<tr>
<td>Sun</td>
<td>Weijing</td>
<td>MD</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Sun</td>
<td>Zhaojun</td>
<td>MD</td>
<td>Research Associate</td>
</tr>
<tr>
<td>Syrigos</td>
<td>Konstantinos</td>
<td>N. MD</td>
<td>Adjunct Professor of Medicine</td>
</tr>
<tr>
<td>Tarhini</td>
<td>Ahmad</td>
<td>A. MD</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Tawbi</td>
<td>Hussein</td>
<td>A. MD</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Thull</td>
<td>Darcy</td>
<td>L. MS</td>
<td>Instructor in Medicine</td>
</tr>
<tr>
<td>Van Londen</td>
<td>Gijsberta</td>
<td>J. MD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Villaruz</td>
<td>Liza</td>
<td>C. MD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Vujanovic</td>
<td>Lazar</td>
<td>N. PhD</td>
<td>Research Instructor in Medicine</td>
</tr>
<tr>
<td>Wei</td>
<td>Ning</td>
<td>PhD</td>
<td>Research Associate</td>
</tr>
<tr>
<td>Zarour</td>
<td>Hassane</td>
<td>MD</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Zhang</td>
<td>Peng</td>
<td>MD</td>
<td>Research Associate</td>
</tr>
</tbody>
</table>
### Affiliated Faculty with UPP Appointments

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>MD</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Woytowitz</td>
<td>MD</td>
<td>V.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
</tbody>
</table>

### Affiliated Faculty without UPP Appointments

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>MD</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ahmad</td>
<td>Afag</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Awan</td>
<td>Rashid</td>
<td>A.</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Bierenbaum</td>
<td>Jason</td>
<td>M.</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Blakowski</td>
<td>Sandra</td>
<td>A.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Bloom</td>
<td>Elana</td>
<td>J.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Choksi</td>
<td>Rushir</td>
<td>J.</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Connell</td>
<td>Cindylo</td>
<td>F.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Crandall</td>
<td>Theodore</td>
<td>L.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Dai</td>
<td>Lijun</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Earle</td>
<td>Martin</td>
<td>F.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Ellis</td>
<td>Peter</td>
<td>G.</td>
<td>Clinical Professor of Medicine</td>
</tr>
<tr>
<td>Evans</td>
<td>Terry</td>
<td>L.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Ferri Jr.</td>
<td>William</td>
<td>A.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Fierro</td>
<td>Ronald</td>
<td>F.</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Francis</td>
<td>Lanie</td>
<td>K.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Friedland</td>
<td>David</td>
<td>M.</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Georgiadis</td>
<td>Mark</td>
<td>S.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Gluckman</td>
<td>Robert</td>
<td>J.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Hadeed</td>
<td>Venus</td>
<td>A.</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Haradin</td>
<td>Anthony</td>
<td>R.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Hou</td>
<td>Gene</td>
<td>J.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Jacobs</td>
<td>Samuel</td>
<td>A.</td>
<td>Clinical Professor of Medicine</td>
</tr>
<tr>
<td>Kane</td>
<td>Kevin</td>
<td>M.</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Kane</td>
<td>Patrick</td>
<td>L.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Kapoor</td>
<td>Nitin</td>
<td>DO</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Kiefer</td>
<td>Gauri</td>
<td>J.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Kim</td>
<td>Hyoung</td>
<td>D.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Krauze</td>
<td>Michae</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Laman</td>
<td>Andrew</td>
<td>D.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Lancaster</td>
<td>Stewart</td>
<td>L.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Lech</td>
<td>John</td>
<td>A.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Lembersky</td>
<td>Barry</td>
<td>C.</td>
<td>Clinical Professor of Medicine</td>
</tr>
<tr>
<td>Liang</td>
<td>Hongmei</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Lichter</td>
<td>James</td>
<td>G.</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Lim</td>
<td>Seah</td>
<td>H.</td>
<td>Clinical Professor of Medicine</td>
</tr>
<tr>
<td>Liman</td>
<td>Andrew</td>
<td>D.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Lob</td>
<td>Edgardo</td>
<td>R.</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Malloy</td>
<td>Edward</td>
<td>L.</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Marks</td>
<td>Stanley</td>
<td>M.</td>
<td>Clinical Professor of Medicine</td>
</tr>
<tr>
<td>McLaughlin</td>
<td>Brian</td>
<td>T.</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Megaludis</td>
<td>Alexis</td>
<td>M.</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Mehta</td>
<td>Dhaval</td>
<td>R.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Meisner</td>
<td>Dennis</td>
<td>J.</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Morcos</td>
<td>John</td>
<td>P.</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Ohr</td>
<td>James</td>
<td>P.</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Last Name</td>
<td>First Name</td>
<td>MI</td>
<td>Degree</td>
</tr>
<tr>
<td>-----------</td>
<td>------------</td>
<td>----</td>
<td>--------</td>
</tr>
<tr>
<td>Alaoui-El-Azher</td>
<td>Mounia</td>
<td>-</td>
<td>PhD</td>
</tr>
<tr>
<td>Burgess</td>
<td>Melissa</td>
<td>A</td>
<td>MD</td>
</tr>
<tr>
<td>Ferguson</td>
<td>Robert</td>
<td>J</td>
<td>PhD</td>
</tr>
</tbody>
</table>

**New Faculty Hires**

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>MI</th>
<th>Degree</th>
<th>Primary Title</th>
<th>Division</th>
<th>Previous Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Osborn</td>
<td>Jennifer</td>
<td></td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Passero</td>
<td>Vidaceilia</td>
<td>A</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peracha</td>
<td>Sajid</td>
<td>M</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Petro</td>
<td>Daniel</td>
<td>P</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pfister</td>
<td>Wayne</td>
<td>J</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Puleio</td>
<td>Donna</td>
<td>V</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rahman</td>
<td>Mohammad</td>
<td>P</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rai</td>
<td>Hema</td>
<td></td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rajasenan</td>
<td>Kiran</td>
<td>K</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ramineni</td>
<td>Gopala</td>
<td>A</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raptis</td>
<td>Anastasios</td>
<td></td>
<td>MD</td>
<td>Clinical Associate Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reyes Jr.</td>
<td>Vincent</td>
<td>E</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rhee</td>
<td>John</td>
<td>C</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rothman</td>
<td>Jan</td>
<td>M</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Safyan</td>
<td>Eric</td>
<td>L</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schillo</td>
<td>Robert</td>
<td>E</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sehgal</td>
<td>Rajesh</td>
<td></td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sherry</td>
<td>Michael</td>
<td>M</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Simon</td>
<td>Sheryl</td>
<td>R</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spielvogel</td>
<td>William</td>
<td>E</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stoller</td>
<td>Ronald</td>
<td>G</td>
<td>MD</td>
<td>Clinical Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sulecki</td>
<td>Matthew</td>
<td>G</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sun</td>
<td>Min</td>
<td></td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Symes</td>
<td>Philip</td>
<td>H</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tan</td>
<td>Jocelyn</td>
<td>L</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tarabay</td>
<td>Grace</td>
<td>R</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VanderWeele</td>
<td>Robert</td>
<td>A</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Viverette</td>
<td>J. Franklin</td>
<td></td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volkin</td>
<td>Robert</td>
<td>L</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voloshin</td>
<td>Michael</td>
<td>D</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waas</td>
<td>John</td>
<td>K</td>
<td>DO</td>
<td>Clinical Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Current Post Docs in FY 2015-2016

<table>
<thead>
<tr>
<th>Employee Last Name</th>
<th>Employee First Name</th>
<th>Degree Code</th>
<th>Current Title</th>
<th>Summary of activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adamik</td>
<td>Juraj</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Adamik focuses primarily on the GFI-1 and osteoblast suppression in multiple myeloma, which he has extended into studies on EZH2 in osteoclasts and MM cells.</td>
</tr>
<tr>
<td>Amin-Ali</td>
<td>Rada</td>
<td>PhD</td>
<td>Research Associate</td>
<td>Dr. Amin-Ali studies the mechanisms of tumor-induced T cell dysfunction in patients with advanced cancer.</td>
</tr>
<tr>
<td>Attar</td>
<td>Myriam</td>
<td>PhD</td>
<td>Research Associate</td>
<td>Dr. Attar is studying the role of TWIST1 in oncogene driven NSCLC.</td>
</tr>
<tr>
<td>Bhattacharya</td>
<td>Chitralkeha</td>
<td>PhD</td>
<td>Research Associate</td>
<td>Dr. Bhattacharya is studying the epigenetic changes with stem cell phenotype and radioresistance.</td>
</tr>
<tr>
<td>Chatterjee</td>
<td>Suman</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Chatterjee is targeting KRAS-mutant NSCLC through inhibition of mTOR and Hsp90 pathways.</td>
</tr>
<tr>
<td>Chauvin</td>
<td>Joe-Marc</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Chauvin is studying the role of the TIGIT inhibitory pathway in modulating Treg functions in patients with advanced melanoma.</td>
</tr>
<tr>
<td>Gbotosho</td>
<td>Oluwabukola</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Gbotosho is a cell physiologist studying the molecular pathways of heme entry and response to heme-induced expression of PLGF in bone marrow cells and how PLGF mediates vascular pathophysiology of pulmonary hypertension in sickle cell mouse. She is also investigating the Nrf2 oxidant stress response pathway in sensing excess intracellular heme-bound iron in cultured erythroid cells.</td>
</tr>
<tr>
<td>Goff</td>
<td>Julie</td>
<td>MS</td>
<td>Research Associate</td>
<td>Ms. Goff is studying real-time visualization and manipulation of the metastatic trajectory of breast cancer cells. She also conducts and analyzes in vitro and in vivo experiments on stromal-cancer interactions.</td>
</tr>
<tr>
<td>Ihunnah</td>
<td>Chibueze</td>
<td>PhD</td>
<td>Postdoctoral Scholar</td>
<td>Dr. Ihunnah is investigating the pharmacogenomic role of NRF2 agonists in hematopoietic and endothelial cells in the context of Sickle Cell Disease (SCD). It is hoped that these compounds will show efficacy in the treatment of SCD patients suffering from pulmonary vascular dysfunction.</td>
</tr>
<tr>
<td>Ka</td>
<td>Mignane</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Ka studies the role of inhibitory pathways in modulating innate immune responses to tumor antigens in patients with advanced cancer.</td>
</tr>
<tr>
<td>Li</td>
<td>Yingjian</td>
<td>MD PhD</td>
<td>Postdoctoral Scholar</td>
<td>Dr. Li uses an exosomal recombinase—a tool to dissect metastasis and the cancer microenvironment. Dr. Li develops tools to enable topographic and temporal control of cell genetics by adjacent cells.</td>
</tr>
<tr>
<td>Liu</td>
<td>Haizhou</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Liu is evaluating traditional Chinese herbal medicines as anticancer agents and has identified a water extract of a single herb that suppresses tumor growth. These results will be submitted for publication and are the basis for RO1 and GI SPORE submissions.</td>
</tr>
<tr>
<td>Saada</td>
<td>Sofiane</td>
<td>PhD</td>
<td>International Postdoctoral Associate</td>
<td>Dr. Saada studies the mechanisms of tumor-induced T cell dysfunction in patients with advanced cancer.</td>
</tr>
<tr>
<td>Sacirbegovic</td>
<td>Faruk</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>&quot;Transfusion of Donor Effector Memory T Cells for GVL Immune Reconstitution&quot; Dr. Sacirbegovic studies GVHD using a T cell receptor transgenic model. His focus is on the clonal nature of disease establishment and disease maintenance.</td>
</tr>
<tr>
<td>Santos</td>
<td>Patricia</td>
<td>PhD</td>
<td>Postdoctoral Fellow</td>
<td>Dr. Santos is studying AFP-mediated suppression of myeloid DC function; checkpoint molecule expression on melanoma antigen-specific T cells</td>
</tr>
<tr>
<td>Sun</td>
<td>Zhaojun</td>
<td>MD PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Sun is working with gene profiling studies of tumor-infiltrating T cells isolated from metastatic melanoma.</td>
</tr>
<tr>
<td>Tasdemir</td>
<td>Nilgun</td>
<td>PhD</td>
<td>Postdoctoral Fellow</td>
<td>Dr. Tasdemir is investigating mediators of disease progression in invasive lobular carcinoma.</td>
</tr>
<tr>
<td>Wei</td>
<td>Ning</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Wei is studying the mechanism of action of bruceantinol, a natural product quassinoid, in colorectal cancer. Dr. Wei has prepared a manuscript with this work.</td>
</tr>
</tbody>
</table>
### Dr. Zhang's Work
Dr. Zhang's work is primarily focused on the GFI-1 and osteoblast suppression in multiple myeloma, which he has extended into studies on the role of Gfi1 in osteoclasts and MM cells.

### Dr. Zhou's Work
"Leukemia Stem Cells: Essential Targets for GVL and Mediators of GVL-Resistance" Dr. Zhou studies the mechanisms of graft-vs-leukemia and graft-vs-leukemia resistance in mouse models.

### Dr. Zhu's Work
"Role of Tissue Antigen Presenting Cells in GVHD" Dr. Zhu uses two photon intravital microscopy to study: a) GVHD of bowel and liver; b) mechanisms of T cell killing of leukemia cell in bone marrow; and c) Effector T cell trafficking in the bone marrow.

### Terminating Post Docs in FY 2015-2016

<table>
<thead>
<tr>
<th>Employee Last Name</th>
<th>Employee First Name</th>
<th>Degree</th>
<th>Current Title</th>
<th>Summary of activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abecassis</td>
<td>Irina</td>
<td>PhD</td>
<td>Research Associate</td>
<td>Dr. Abecassis is studying the function of N-Reminal domins of NPM in NPM-RAR APL.</td>
</tr>
<tr>
<td>Gomez-Casal</td>
<td>Roberto</td>
<td>MS</td>
<td>Health Sciences Research Fellow</td>
<td>Dr. Gomez-Casal is studying molecular mechanisms of NSCLC radioresistance.</td>
</tr>
<tr>
<td>Li</td>
<td>Changyou</td>
<td>PhD</td>
<td>Research Associate</td>
<td>Dr. Li is exploring the functional analysis of caspase-8 mutations associated with head and neck cancer.</td>
</tr>
<tr>
<td>Wu</td>
<td>Shaoyu</td>
<td>MD PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Wu is studying role of miRNAs in regulating TS expression and mediating drug resistance in CRC.</td>
</tr>
</tbody>
</table>
High Impact Publications


“E4697 was a phase III trial that enrolled 815 patients with completely resected high-risk stage III and stage IV melanoma and evaluated the adjuvant therapeutic effect of granulocyte-macrophage colony-stimulating factor (GM-CSF) and peptide vaccination (PV) on relapse-free survival (RFS) and overall survival (OS). Neither adjuvant GM-CSF nor PV significantly improved RFS or OS in this patient population, although exploratory analyses suggested that GM-CSF may be beneficial in patients with resected visceral metastases.”


In this manuscript, we tested the hypotheses, based on our prior work in mice, that the depletion of naïve T cells from human peripheral blood stem cell grafts, would reduce graft-vs-host disease (GVHD). Patients with acute leukemia received ablative conditioning followed by infusion of CD34+ cells along with a defined dose of memory T cells from which naïve T cells had been depleted. Relative to a contemporary cohort that received similar conditioning and unmanipulated grafts, depletion of naïve T cells resulted in a dramatic reduction of chronic GVHD, more rapid tapering of immunosuppression, and excellent survival. This was the report on the first 35 patients; at present more than 70 patients have been transplanted with similar results. A four-arm clinical trial testing naïve T cells depletion has since been opened at Pitt.


Dr. Kiss has been active in studying factors associated with the development of iron-deficiency and the effectiveness of low-dose iron supplementation for this condition, utilizing blood donors as a research model. This led to the pivotal Hemoglobin and Iron Recovery Study (HEIRS), a randomized controlled trial of low-dose iron supplementation in blood donors, published in JAMA in 2015.1 The trial results clearly indicate that it takes over 24 weeks to replace the iron lost after donating a unit of blood, and that low-dose iron supplements are well tolerated and effective in restoring iron balance. The results of this study are being considered by the Food and Drug administration in determining the allowable frequency of blood donations in the US.


Chao DT, Shah NH, Zeh HJ 3rd, Bahary N, Whitcomb DC, Brand RE. Increased Serum Insulin Exposure Does Not Affect Age or Stage of Pancreatic Adenocarcinoma Diagnosis in Patients With Diabetes Mellitus. Pancreas. 2016 Feb;45(2):228-33.


Chattopadhyay A, Hood BL, Conrads TP, Redner RL. Extrinsic Apoptosis is Impeded by Direct Binding of the APL Fusion Protein NPM-RAR to TRADD. Mol Cancer Res. 2014 Sep;12(9):1283-91.

Chattopadhyay A, Abecassis I, Redner RL. NPM-RAR binding to TRADD selectively inhibits caspase activation, while allowing activation of NFkappaB and JNK. Leuk Lymphoma. 2015;56(12):3401-6.


Department of Medicine

http://www.dom.pitt.edu/hemaonc


Olevian DC, Nikiforova MN, Chiosea S, Sun W, Bahary N, Kuan SF, Pai RK. Colorectal poorly differentiated neuroendocrine carcinomas frequently exhibit BRAF mutations and are associated with poor overall survival. Hum Pathol. 2016 Mar;49:124-34.


Wesa AK, Mandic M, Taylor JL, Moschos S, Kirkwood JM, Kwok WW, Finke JH, Storkus WJ. Circulating Type-1 Anti-Tumor CD4(+) T Cells are Preferentially Pro-Apoptotic in Cancer Patients. Front Oncol. 2014 Sep 29;4:266.


The continuing goals of the Division of Infectious Diseases (ID) are to:

- Provide state-of-the-art care that is easily accessible and responsive to the needs of patients and our colleagues
- Mentor fellows in our ID training program to become the next generation of knowledgeable and respected researchers, clinicians, and educators
- Rigorously train medical students and residents in the disciplines of ID
- Develop and perform cutting-edge basic and clinical research that translates progress into clinical practice, improving the standard-of-care for treatment and prevention of infectious diseases
- Protect the public health from natural and man-made epidemics of infectious diseases.

An Overview of the ID Division:

- **Inpatient Clinical Services**: Consult teams round at UPMC Presbyterian University Hospital, Magee-Women's Hospital of UPMC, UPMC Mercy Hospital, Western Psychiatric Institute and Clinic, and the VA Pittsburgh Health System (VAPHS). There are dedicated rounding teams for General ID, Surgical ID, and Transplant ID (TID). The Division also provides inpatient consults through telemedicine at UPMC Northwest. In January 2016, the Division entered into an agreement to expand telemedicine services to the Penn Highlands Health System, a non-UPMC hospital. The Division also expanded TID inpatient telemedicine consult services to UPMC Hamot Hospital.

- **Outpatient Clinical Services**: Outpatients are seen in the infectious diseases clinics on the 7th floor of the Falk Medical Building, and also at UPMC Mercy Health Center. A multi-million-dollar renovation of the Falk clinic was completed in June 2016, and the clinic was renamed, "The Center for Care of Infectious Diseases (CCID)." The CCID offers consultations and longitudinal care for general and surgical infectious diseases, HIV/AIDS, HIV prevention through pre-exposure prophylaxis (PrEP), recurrent *Clostridium difficile* infections, transplant infectious diseases (TID), Anal Dysplasia Clinic (ADC), and the newly established Travel Health Clinic. An Outpatient Parenteral Antibiotic Therapy (OPAT) program is also a key part of the CCID for patients who require intravenous antimicrobial therapy after hospital discharge. Patients with recurrent *Clostridium difficile* infections are evaluated for fecal microbiota transplantation (FMT) in the CCID. General ID physicians provide outpatient telemedicine consults for patients at UPMC Northwest and Bedford. The HIV/AIDS program provides primary care to approximately 1,631 HIV-infected persons from the tri-state area. The TID clinic performs pre-transplant evaluations and follow-up for solid organ or stem cell transplant recipients with infections. The TID program recently expanded its telemedicine outpatient consult services to serve patients at UPMC Hamot Medical Center. The ADC, which is located in CCID and at UPMC Magee-Womens Hospital, provides preventive care for individuals at risk for anal cancer. ADC's clinical services were temporarily suspended in April 2016 due to the departure of the medical director. A new medical director has been hired and ADC services will resume in mid-November 2016.

- **Research Activities**: A vital activity of the ID Division is laboratory, translational, and clinical research. Major research strengths of the Division are in HIV-AIDS, TID, antimicrobial resistance, and nosocomial and community-acquired infections.
- **Training Activities**: Division faculty provides exceptional educational opportunities for graduate students, medical students, medical residents, and postdoctoral PhD and MD fellows.
- **Infection Prevention**: Division faculty provides medical directorship of Infection Prevention at UPMC Presbyterian and UPMC Mercy Hospital.
In FY2016, the Division continued to be successful in achieving its goals through the concerted efforts of its faculty, trainees, and staff. The Division was able to maintain inpatient volumes in FY 2016 compared with FY 2015. Regarding research operations, a 7% increase in total research expenditures was realized in FY 2016 compared with FY 2015. This increase is attributable to the new research awards received by our faculty. The Division established two new research centers in FY 2016: the Center for HIV Research and the Center for Innovative Antimicrobial Therapy. The Center for HIV Research comprises internationally recognized investigators and physicians involved in basic and translational research, clinical research, and HIV/AIDS care. The Center for Innovative Antimicrobial Therapy (CIAT) was established with the goal of developing long-term solutions to the antimicrobial resistance crisis. In December 2015, the Division’s HIV/AIDS leadership spearheaded AIDS Free Pittsburgh, an initiative to end the HIV/AIDS epidemic in Allegheny County by 2020. AIDS Free Pittsburgh comprises government agencies, healthcare institutions, and community-based organizations that strive to support and improve the care of people living with HIV/AIDS and to prevent new infections.
RESEARCH

Basic, translational, and clinical research are major priorities for the Division. In FY 2016, the Division's research expenditures increased 7% from FY 2015 levels.

The total direct and indirect cost expenditures were nearly $11 million and ID ranks third in the Department of Medicine in research expenditures.

The Division’s research portfolio includes awards from the National Institutes of Health (NIH), Centers for Disease Control and Prevention (CDC), Health Resources and Services Administration (HRSA), United States Agency for International Development (USAID), foundations, and industry sponsors. The Division also conducts numerous UPMC clinical trials and reported gross revenue of $213,423 in FY 2016. The Division's strong research themes include HIV-AIDS, epidemiology and molecular epidemiology of bacterial pathogens, antimicrobial resistance of gram-negative bacteria, pathogenesis of fungal infections, and biosecurity planning.

New Research Initiatives and Ongoing and Planned Collaborations

- Cornelius (Neil) Clancy MD was awarded a two-year grant from Merck Sharp & Dohme Corp. for the project entitled “Ceftolozane-tazobactam against Pseudomonas aeruginosa clinical isolates with various mechanisms of resistance” with annual direct costs of $51,894 from June 13, 2016 through June 12, 2018.
- Cornelius (Neil) Clancy MD was awarded a two-year NIH R21 grant for the project “Imaging and PK-PD of micafungin at sites of Candida glabrata infection in vivo” with annual direct costs of $443,875 from January 1, 2016 through December 31, 2017.
- Cornelius (Neil) Clancy MD was awarded a two-year study from Astellas Scientific and Medical Affairs, Inc., jointly with Norihisa Shigemura, Ph.D., Department of Cardiothoracic Surgery for the project entitled “Fungal Infections Post-Influenza among Lung Transplant Recipients” with annual direct costs of $39,545 from August 17, 2016 through August 16, 2017.
- Yohei Doi MD PhD, was awarded a 19-month NIH R21 grant for a project entitled “Mechanisms and implications of fosfomycin resistance in Escherichia coli” with annual direct costs of $415,400 from March 1, 2016 through February 28, 2018.
- Yohei Doi MD PhD was awarded a 21-month grant from The Medicines for a project entitled “Validation of susceptibility testing methods of tetracyclines for carbapenem-resistant Acinetobacter baumannii” with annual direct costs of $80,456 from December 7, 2015 through August 6, 2016.
- Yohei Doi MD PhD, was awarded a one-year grant from Healthcare Innovation Technology Lab (HITLAB) for an ID project entitled “Treatment Patterns and Associated Outcomes for Serious Infections due to Carbapenem-Resistant Enterobacteriaceae across United States Hospitals” with annual direct costs of $10,000 from November 30, 2015 through November 29, 2016.
- Yohei Do, MD PhD, was selected as the Committee Chair for an NIH–Antibacterial Resistance Leadership Group (ARLG) award in conjunction with Duke University with annual direct costs of $24,471 from December 1, 2015 through November 30, 2016.
Lee Harrison MD was awarded a four-year NIH R01 sub-contract jointly with Kenneth Smith MD Division of General Internal Medicine entitled “Analyzing Adult Pneumococcal Vaccination Implementation in the Underserved” with annual direct costs of $34,917 from November 1, 2015 through October 31, 2019.

Jane Marsh PhD was awarded a one-year CDC sub-contract in conjunction with Johns Hopkins University for the project entitled “Maryland Emerging Infectious Program (Prevention and Public Health Fund) MEIP/PPHF” with annual direct costs of $23,576 from October 1, 2015, through September 30, 2016.

John Mellors MD and Urvi Parikh PhD were awarded a five-year USAID grant as part of a cooperative agreement to monitor drug resistance during the rollout of HIV prevention drugs in sub-Saharan Africa. The ID Division will conduct laboratory research and develop evidence-based policy guidance for monitoring drug resistance during the large-scale rollout of drugs and microbicides that prevent HIV infection. The annual direct costs of $5 million from July 20, 2015, through July 17, 2020, is funded by the U.S. President’s Emergency Plan for AIDS Relief through USAID (award AID-OAA-A-15-00031), which administers the U.S. foreign assistance program providing economic and humanitarian assistance in more than 80 countries worldwide.

John Mellors MD was awarded a one-year grant from Janssen Pharmaceuticals, Inc., for the project entitled “Induction of HIV Expression by TLR-7 Agonists” with annual direct costs of $414,621 from August 1, 2016 through July 31, 2017.

Hong Nguyen MD was awarded a two-year grant from Merck Sharp & Dohme, Corp., for the project entitled “Relebactam in combination with imipenem against Enterobacteriaceae and Pseudomonas aeruginosa strains exhibiting various mechanisms of carbapenem resistance” with annual direct costs of $41,971 from December 14, 2015, through December 13, 2017.

Hong Nguyen MD was awarded a two-year grant from Astellas Pharma Global Development, Inc., for the project entitled “Financial burden of Cytomegalovirus mismatch in lung transplant recipients” with annual direct costs of $161,248 from January 12, 2016, through January 11, 2018.

Hong Nguyen MD was awarded a two-year grant from NIH and Social and Scientific Systems, Inc., for the project entitled “A Randomized Double-Blind, Phase 3 Study Comparing the Efficacy and Safety of High-Titer versus Low-Titer Anti-Influenza Immune Plasma for the Treatment of Severe Influenza A” with annual direct costs of $90,600 from October 16, 2015, through September 30, 2017.

Hong Nguyen MD was awarded a one-year sub-contract with the NIH – Antibacterial Resistance Leadership Group (ARLG-CRACKLE) grant in conjunction with Duke University with annual direct costs of $24,471 from December 1, 2015, through November 30, 2016.

Urvi Parikh, PhD, was awarded a one-year sub-contract by the Baylor College of Medicine in conjunction with the Gates Foundation for a project entitled “Antiretrovirals and Spread of HIV Drug Resistance” with annual direct costs of $5,332 from December 2, 2015, through November 30, 2016.

Ryan Shields PharmD was awarded a two-year grant from Merck Sharp & Dohme Corp. for a project entitled “Mutation Rates among C. albicans and C. glabrata following exposure to different echinocandins” with annual direct costs of $30,955 from December 15, 2015, through December 14, 2017.

Fernanda Silveira MD, MS was awarded a five-year sub-contract from the CDC in conjunction with the Department of Family Medicine for a project entitled “Flu vaccine effectiveness in those hospitalized in a large, diverse health system (HAVEN)” with annual direct costs of $634,251 from August 1, 2015, through July 31, 2020.

Fernanda Silveira MD MS was awarded a two-year UM1-ARLG Network grant from the NIH in conjunction with Duke University for a project entitled “Antibacterial Resistance Leadership Group (ARLG): PROVIDE” with annual direct costs of $49,500 from December 1, 2014, through November 30, 2016.

Fernanda Silveira MD MS was awarded a three-year Food and Drug Administration (FDA) sub-contract in conjunction with Duke University for a project entitled “Prospective Observational Study of the Risk Factors for Hospital-Acquired and Ventilator-Associated Bacterial Pneumonia (HABP/VABP with annual direct costs of $46,500 from March 14, 2016, through August 31, 2019.

Nicolas Sluis-Cremer was awarded a two-year NIH R21 grant for a project entitled “The ‘Kick’ Revisited in the ‘Kick and Kill’ Strategy” with annual direct costs of $408,066 from June 20, 2016, through May 31, 2018.
Faculty Research Interests

Rima Abdel-Massih MD
Dr. Abdel-Massih’s research interests include infectious complications in transplant recipients, cytomegalovirus, fungal infections, and bacterial resistance. She is a co-investigator on multiple clinical trials. She has also worked on the interaction of the innate immune system, specifically genetic mutations in toll-like receptors, with fungal pathogens.

Zandrea Ambrose PhD
The Ambrose laboratory takes three approaches to studying HIV infection and therapeutics: 1) transmission and prevention of HIV; 2) HIV treatment and drug resistance, including identification of new therapeutic targets; and, 3) persistence of viral reservoirs in vivo. Daily oral pre-exposure prophylaxis (PrEP) using two antiretroviral drugs is effective at preventing HIV transmission in high-risk populations. A concern in using antiretroviral drugs for both treatment of HIV-infected individuals and for PrEP is the potential for transmission or development of drug-resistant HIV isolates during PrEP. The Ambrose laboratory is studying the efficacy of long-lasting PrEP in preventing transmission of HIV, including common drug-resistant strains. In addition, the laboratory is investigating the mechanisms of novel small molecule inhibitors at preventing HIV infection in vitro and in vivo. The Ambrose laboratory is also investigating the differences of HIV infection of macrophages and CD4+ T cells, both critical cell types infected in the host. Understanding these differences will lead to the exploitation of these pathways with novel antiretroviral strategies. Finally, the laboratory studies viral diversity and variability, particularly of drug resistance mutations, that develop in blood and different tissues before, during, and after therapy to identify the nature and dynamic properties of persistent viral reservoirs, both in and outside of the blood.

Hassan Badrane PhD
Dr. Hassan Badrane is investigating opportunistic infections caused by Candida species of yeasts, particularly C. albicans. He is characterizing genes where expression have been found to be induced in vivo and their encoded protein have an immunogenic property. Presumably, these genes will be important during infection. Amongst them, he characterized IRS4 to encode for an Eps15 homology (EH) domain protein, which regulates the levels of phosphatidylinositol (4,5)-bisphosphate (PI(4,5)P2). This regulation is exerted by activating Inp51p, a 5-phosphatase enzyme that converts PI(4,5)P2 to PI4P. Indeed, mutant strains in which either IRS4 or INP51 has been knocked-out, had higher levels of PI(4,5)P2, which in turn affected the cell wall integrity pathway and hyphal growth, and attenuated virulence to mice in a disseminated candidiasis model. In addition, these mutant strains exhibited abnormal intracellular patches of PI(4,5)P2 that colocalized with septins. Currently, he is deciphering the upstream regulation that controls the function of Irs4p/Inp51p as well as setpins.

Tatiana Bogdanovich MD PhD MSc
Dr. Bogdanovich’s research interests are focused on the prevention and treatment of infections in solid organ transplant recipients, Clostridium difficile infection, and fecal microbiota transplantation. In addition, she is heavily involved in the antimicrobial stewardship program.

Karin Byers MD MS
Dr. Byer’s major areas of interest are orthopedic and neurosurgical infections. She also is interested in preventing adverse outcomes from antibiotics.

Shaoji Cheng MD
Dr. Cheng’s research interests are the pathogenesis of Candida infection and the Enterobacter infection, as well as the mechanisms of antifungal drug resistance.

Cornelius (Neil) Clancy MD
Dr. Clancy’s laboratories are interested in the molecular pathogenesis of invasive infections caused by the fungus Candida albicans.
Dr. Clancy's labs have implicated several novel genes in both organisms that contribute to the pathogenesis of candidiasis and aspergillosis. Biological processes related to these genes that are studied in the lab include histone methylation and transcriptional regulation, DNA damage responses, and phosphoinositide regulation.

In addition, he and Dr. Nguyen collaborate on research about mechanisms of antimicrobial resistance in bacteria and fungi and their relevance to treatment efficacy, as well as the susceptibility to cytomegalovirus infections among transplant recipients.

**Joshua Cyktor PhD**
Dr. Cyktor is an immunovirologist who specializes in the interface of intracellular pathogens, like HIV-1 and Mycobacterium tuberculosis, within the human immune system. Specifically, he is interested in understanding the mechanisms of HIV-1 persistence in patients despite years of suppressive treatment, and how HIV-1 may direct the course of our immune systems to its own benefit. He is a protocol virologist for several AIDS Clinical Trials Group studies that are at the forefront of translational HIV-1 clinical research.

**Brooke Decker MD**
As Director of Infection Prevention at VA Pittsburgh, Dr. Decker is most interested in the epidemiology of hospital-associated infections, transmission of resistant organisms, and prevention of hospital waterborne, infections including Legionnaire's Disease.

**Yohei Doi MD PhD**
The mission of Dr. Doi's laboratory is to identify and investigate antimicrobial resistance of clinical concern among gram-negative bacterial pathogens. The areas of research include the genetic and molecular basis of emerging antimicrobial resistance mechanisms; the rapid diagnosis of resistance using phenotypic, genetic, and lipidomic approaches; and inhibitor-based drug discovery. Current efforts are focused on colistin resistance in Acinetobacter baumannii, a problematic healthcare-associated pathogen, and fosfomycin resistance in Escherichia coli, the predominant cause of urinary tract infection in both healthcare and community settings.

**Bonnie Falcione PharmD**
Dr. Falcione aims to identify strategies to prevent and treat infectious diseases in critically ill patients as well as those at risk for critical illness due to the onset of infection or a complication of treating the infection, particularly those due to antimicrobial resistant organisms. She places particular emphasis on the use of available resources to improve empiric drug selection, dosing, and monitoring strategies for agents with high toxicity potential (vancomycin, colistin, aminoglycosides, nafcillin). She also seeks to identify concurrent drug therapies that may increase the risk of infections in these critically ill patients or those at risk of becoming critically ill.

Dr. Falcione's research also centers on the prevention of infectious diseases and inappropriate antimicrobial use by increasing awareness of vaccine strategies; the best use of tools to identify the presence or absence of infections, and antimicrobial-use principles most relevant to the individual patient. Finally, she focuses on the development teaching methods and strategies to educate pharmacy students and other healthcare professional trainees on optimal prevention and treatment strategies, including awareness of principles and strategies of antimicrobials stewardship.

**Carolyn Fernandes MD**
Dr. Fernandes's research involves travel-related infections, tuberculosis, and infections due to Staphylococcus aureus.

**Elias Halvas PhD**
Dr. Halvas' researches the human immunodeficiency virus type 1 (HIV-1). Specifically, he focuses on the development, validation, and testing of new technologies to detect and quantify major- and low-frequency drug-resistant HIV-1 variants. He monitors HIV-1 drug-resistance and evolution by standard genotyping of patient samples, and he
investigates the role of low-frequency HIV-1 drug-resistance variants on clinical outcomes. Dr. Halvas also dissects the mechanisms of HIV-1 pathogenesis, carcinogenesis, and persistence as related to HIV cure strategies.

Early in his career, Dr. Halvas’s research dissected the structural determinants important for reverse transcriptase fidelity as well as the development and validation of novel genotypic assays used on clinical samples from HIV-1 infected patients enrolled in either the AIDS Clinical Trial Group or Microbicides Trials Network. This work was related to the detection and quantification of major and minor drug-resistance variants employing standard genotyping, single genome sequencing (SGS), and allele-specific PCR in the context of ART efficacy and mother-to-child transmission. This research was instrumental in determining the predictive value that these major and minor HIV-1 drug-resistant variants have on clinical outcomes.

Currently, Dr. Halvas’s research involves investigating the role that clonal expansions of HIV-1 infected cells play in HIV-1 persistence and carcinogenesis. This research is being conducted through the application of SGS to detect cell-associated viral DNA and RNA, virus-associated RNA, and full length viral genomes, as well as the recovery of infectious virus, and the capture of integration sites in these HIV-1 infected cells.

Lee Harrison MD
Dr. Harrison’s research focuses on the epidemiology and genomic epidemiology of important vaccine-preventable and drug-resistant bacterial pathogens that are transmitted in the community and causes of hospital-associated infections (HAI’s). Pathogens studied include Streptococcus pneumoniae, group B Streptococcus, Neisseria meningitidis, Escherichia coli O157:H7, Salmonella enterica, Clostridium difficile, Klebsiella pneumoniae, and Pseudomonas aeruginosa. He is the PI of the Microbial Genomics Epidemiology Laboratory (MiGEL), which conducts research on and provides training in genomic epidemiology and provides outbreak detection support to the Director of Infection Control at the University of Pittsburgh Medical Center (UPMC). MiGEL uses molecular epidemiologic tools, such as pulsed field gel electrophoresis (PFGE), multilocus sequence typing (MLST), multilocus variable number tandem repeat analysis (MLVA), and whole genome sequencing (WGS) to study emergence and transmission of these bacteria. More recently, Dr. Harrison has been studying the use of WGS and data mining of the electronic medical record (EMR) and machine learning tools for enhanced outbreak detection in the hospital. He is also studying the utility of the peri-rectal microbiome to predict risk of HAI’s.

Dr. Harrison has led a variety of NIH Fogarty International Center international training grants on bacterial diseases and HIV infection, both in Brazil and Mozambique.

Ken Ho MD MPH
Dr. Ho’s primary research focuses on biomedical strategies for HIV prevention, and in particular, HIV pre-exposure prophylaxis (PrEP) and microbicide development. He conducts multiple clinical trials of PrEP and microbicides at the University of Pittsburgh Clinical Trial Unit. He was the investigator of record for the Next-PrEP Study (HPTN-069), a safety and tolerability study of maraviroc based regimens for PrEP. He is the protocol chair for MTN-033: An Open Label Randomized Phase 1 Pharmacokinetic Study of Dapivirine Gel Administered Rectally to HIV-1 Seronegative Adult Dr. Ho is also a pharmacovigilance officer with the NIH-funded Microbicide Trials Network and is the Medical Director of the Pitt Mens Study, the Pittsburgh branch of the Multicenter AIDS Cohort Study. He conducts studies of periodic PrEP use and is the principal investigator of the EpiPrEP Pilot Study, which is looking at Intermittent PrEP for HIV prevention among gay, bisexual and other men who have sex with men (msm).

Jae Hong MD AAHIVS
Dr. Hong’s research interest is in multidrug resistant bacterial infection.

Eun Kwak MD
Dr. Kwak’s research interests include the following: outcomes and therapeutics in viral infections in solid organ transplant recipients, in particular; cytomegalovirus and respiratory viral infections in lung transplant recipients; management and prophylaxis for fungal infections in lung transplant recipients; outcomes and management of
infections by multidrug resistant (MDR) pathogens in solid organ transplant recipients; management of nontuberculous mycobacterial infections in transplant recipients and candidates; post operative surgical site infections in liver transplant recipients; and antibiotic stewardship in the era of MDR infections.

**Bernard Macatangay MD**

Immunoregulatory mechanisms can influence many aspects of the body's immune responses to different antigens, and can control inflammatory responses, thereby preventing pathology caused by persistent immune activation and inflammation. The Macatangay laboratory focuses on various immunoregulatory pathways in different inflammatory states, especially in HIV infection. Specifically, the lab aims to define the role of different immunoregulatory mechanisms in: the inflammatory state associated with chronic HIV infection; HIV persistence; and various HIV immunotherapeutic strategies, such as in therapeutic vaccination. By using specimens obtained from the various studies at the Pittsburgh Treatment and Evaluation Unit (PTEU), the AIDS Clinical Trials Group (ACTG), and the Multicenter AIDS Cohort Study (MACS), the lab assesses the immunophenotype and frequencies of regulatory immune cell subsets. It also analyzes specific suppressive function and components of regulatory pathways to further understand the influence of specific immunoregulatory mechanisms in HIV pathogenesis and persistence. In doing so, Dr. Macatangay's aims to improve existing or develop new immunotherapeutic strategies for the control of chronic HIV-associated inflammation and/or for the functional cure of HIV.

**Jane Marsh PhD**

Dr. Marsh is the Director of the Microbial Genomics Epidemiology Laboratory (MiGEL) and works closely with the MiGEL Principal Investigator, Dr. Lee H. Harrison. Research in the lab focuses on the molecular epidemiology of bacterial infectious diseases. MiGEL uses traditional epidemiology and molecular microbiologic techniques, including multi-locus sequence typing (MLST), pulsed-field gel electrophoresis (PFGE), and multi-locus variable number tandem repeat analysis (MLVA) to investigate the origins and transmission of bacterial infections. In addition, the lab investigates genetic relatedness of hospital-associated infections using whole genome sequencing (WGS). MiGEL works closely with clinical microbiologists, epidemiologists, and hospital-infection preventionists to provide timely reporting. Using a combination of traditional molecular epidemiology, WGS, bioinformatics, and phylogenetics helps track and prevent transmission of serious bacterial infections, including Klebsiella pneumoniae, Clostridium difficile, methicillin resistant Staphylococcus aureus, Pseudomonas aeruginosa, Legionella pneumophila, and Acinetobacter baumannii. Recently, the lab has begun investigating the role of the gut microbiome in infectious diseases, using 16S rRNA gene sequencing and shot-gun metagenomics. The lab is also moving toward integrating the electronic medical record with molecular epidemiologic data in an effort to rapidly detect hospital-associated transmission of serious bacterial pathogens. In addition, the lab investigates the global epidemiology and population structure of Neisseria meningitidis using WGS, phylogenetics, outer membrane protein profiling and MLST.

**Sarah McBeth MD MPH**

Dr. McBeth's research focuses on identifying barriers to Hepatitis C treatment and monitoring treatment outcomes in the HIV/Hepatitis C co-infected population.

**Deborah McMahon MD**

Dr. McMahon's research focuses on the HIV reservoir and eradication strategies. She currently serves as co-chair of two NIH-funded AIDS Clinical Trials Group studies. The first study examines the decay of the HIV reservoir in HIV-infected patients receiving long-term antiretroviral therapy; its substudy intensively studies the reservoir in anatomic sites, such as the blood, gut-associated lymphatic tissue, and CSF. The second study evaluates the impact of a histone deacetylase inhibitor, romidepsin, on immune activation and viral expression in HIV-infected patients suppressed on antiretroviral therapy. She is also site principal investigator for an NIH-funded study to examine the effects of rifaximin on immune activation and inflammation. She has over 25 years of HIV clinical research experience.

**John Mellors MD**

Dr. Mellors led several studies with samples from the multicenter AIDS cohort study (MACS) that established the critical relationship between plasma viremia (HIV-1 RNA) and HIV disease progression to AIDS and death in both acute and
chronic HIV-1 infection. This work led to the universal use of plasma HIV-1 RNA and CD4+ T-cell counts to estimate prognosis in HIV-1 infection and the optimal time to initiate antiretroviral therapy (ART). Dr. Mellors contributed to the development and testing of the first antiretroviral combinations that produced sustained suppression of viremia and recovery of CD4+ T-cells that launched the current era of highly-effective ART.

Presently, Dr. Mellors’ laboratory focuses on resistance to antiretroviral drugs used for treatment and HIV prevention and on mechanisms of HIV persistence and strategies to deplete the reservoirs that are the barrier to curing HIV infection. His work on HIV reservoirs showed that low-level viremia persists in most individuals on long-term suppressive ART, and that the level of residual viremia is predicted by the level of viremia before ART. Current work focuses on identifying agents to reverse HIV latency and to eliminate HIV infected cells. The impact of innovative therapies on HIV reservoirs is being studied in Phase I/II trials of histone deacetylase inhibitors, monoclonal antibodies to immune checkpoint ligands, monoclonal antibodies to HIV envelope glycoproteins, and TLR agonists.

Minh-Hong Nguyen MD
Dr. Nguyen's multiple research interests are medical mycology research, including projects on the mechanisms and clinical impact of antifungal drug resistance, and molecular pathogenesis of invasive Candida infections. In addition, his research focuses on XDR bacterial and antimicrobial stewardship research, including projects on evolution and tolerance/resistance and pathogenic mechanisms of carbapenem-resistant Enterobacteriaceae (CRE) and other Gram negative bacteria; the development of novel antibiotic treatment strategies based on bacterial genetics and pharmacokinetic-pharmacodynamic (PK-PD) principles; the clinical and economic impact of XDR infections and antimicrobial stewardship interventions; and clinical trials of new antimicrobials and diagnostic tests. Dr. Nguyen's Transplant Infectious Diseases research includes projects on the role of the microbiome in infections and outcomes among transplant recipients, the impact of rectal CRE carriage on transplant patients’ outcome, and clinical studies and trials on a wide range of opportunistic fungal, bacterial, and viral infections.

Urvi Parikh PhD
Dr. Parikh's translational research laboratory uses novel technical approaches to solve public health problems in the research areas of HIV prevention and drug resistance. Dr. Parikh leads the USAID/PEPFAR-funded Global Evaluation of Microbicide Sensitivity (GEMS) Project, which seeks to characterize resistance risk from pre-exposure prophylaxis (PrEP) trials and demonstration projects; identify the most effective and efficient HIV testing and resistance monitoring strategies; generate evidence-based policy recommendations for HIV diagnostic testing frequency and ARV resistance monitoring; and monitor seroconverters from PrEP roll-out programs for ARV resistance in selected clinics in South Africa, Zimbabwe, and Kenya. The GEMS project brings together a diverse team of laboratory scientists, mathematical modelers, policy experts, health economists, in-country stakeholders, demonstration project teams, and others working toward the common public health goal of minimizing resistance risk during PrEP roll-out. Her laboratory also serves as the Virology Core for the MTN, with the aim of confirming virologic endpoints for all MTN studies; assessing population and low-frequency resistance in seroconverters from HIV prevention trials; developing new assays and addressing research questions relevant to the field of HIV prevention; and providing virology support to MTN protocols, international clinical research sites, and community working groups. In addition to these major projects, Dr. Parikh's lab is investigating the detection of Y chromosome DNA in genital tract specimens using quantitative real-time PCR as a biomarker for unprotected sex and evaluating new HIV diagnostic algorithms using antigen-based rapid tests for identifying seroconverters.

Brian Potoski PharmD BCPS
Dr. Potoski's research interests center on the Monte Carlo simulation of antibiotic exposures; investigations of therapies for the treatment of patients with multiply-resistant gram-negative infections; risk factor studies and how they assist antibiotic management teams; and the impact of antibiotic management teams on drug use and clinical outcomes.

Sharon Riddler MD
Dr. Riddler has more than 20 years of experience in clinical research funded by the NIH and industry. She is interested in all aspects of the clinical research process, including protocol development, implementation, and analysis of results.
She is the Co-PI of the NIH/DAIDS-funded Pitt-OSU HIV/AIDS Clinical Trials Unit and Site Leader for the University of Pittsburgh Clinical Research Site (affiliated with both the AIDS Clinical Trials Group and the Microbicide Trials Network). Dr. Riddler is a Protocol Physician for the Microbicide Trials Network. She has been Chair or Co-Chair for several network studies in the ACTG (A5115, A5142, A5276s, and A5342) and MTN (MTN-015 and MTN-003B). Local clinical trials have focused on immune-based therapies for chronic HIV infection. She is currently the Co-PI for an ongoing U-01-funded Phase I study of dipyridamole for immune activation in HIV-infected participants. Additionally, she was the clinical PI and IND sponsor for two completed studies of dendritic cell-based therapeutic HIV vaccination. Dr. Riddler's group collaborates widely across the University of Pittsburgh to accomplish state-of-the-art clinical trials.

Neel Shah MD
Dr. Shah's research interests include better understanding how to diagnose, manage, and treat prosthetic joint infections. He is currently working on determining what factors determine clinical outcomes associated with patients who undergo debridement and retention of their infected prosthetic joint, and how modifying these factors could help in improving patient outcomes.

Kathleen Sheridan DO
Dr. Sheridan's research focuses on the delivery of quality care to patients discharged from the hospital on IV antibiotics through the Outpatient Parenteral Antibiotic Program (OPAT) to prevent hospital readmissions and antibiotic-associated adverse events.

Ryan Shields PharmD MS
Dr. Shields is a translational researcher who is interested in antimicrobial drug resistance in gram-negative bacteria and yeast. His research focuses on the use of molecular markers of resistance to predict patient responses to treatment; the use of pharmacokinetic-pharmacodynamic models to suppress and overcome antimicrobial resistance; antimicrobial susceptibility testing methods; and the clinical impact of infections due to extensively-drug resistant pathogens. Using these approaches, Dr. Shields has developed treatment paradigms for difficult-to-treat pathogens, including Candida glabrata, Acinetobacter baumannii, and carbapenem-resistant Klebsiella pneumoniae, leading to improved patient outcomes. Dr. Shields's laboratory is also interested in elucidating new mechanisms of antimicrobial drug resistance against recently FDA-approved antimicrobial agents.

Fernanda Silveira MD MS
Dr. Silveira is interested in clinical research that promotes the health of the patients in her care. As such, some of her projects include the study of the effectiveness of the influenza vaccine in preventing hospital admissions; clinical trials of new agents to treat respiratory viral infections in lung transplant recipients; clinical trials of new agents for the treatment of CMV; and optimization of colistin dose in critically ill patients with multi-drug resistant Gram negative infections.

Nina Singh MD
Nina Singh's area of research interest is opportunistic viral and fungal infections in organ transplant recipients. Her specific interests include herpes virus infections (cytomegalovirus and human herpesvirus-6) in transplant recipients. Her work in this area pertains to clinical trials to optimize antiviral prophylaxis and assess CMV-specific immune responses after transplantation. The knowledge gained from these studies has implications for elucidating the mechanistic basis for CMV disease despite current prophylactic practices and for designing immune-based therapies in the future as adjuncts to antivirals for the prevention of CMV. A key area of her research interest is invasive cryptococcosis in transplant recipients. Dr. Singh has conducted pivotal studies to assess risks, disease associations, outcomes, and immunopathogenesis as it relates to this yeast in transplant recipients. These studies have made a major contribution toward the scientific rationale for the Infectious Diseases Society of America (IDSA) and American Society of Transplantation (AST) guidelines for cryptococcus in transplantation.
More recently, Dr. Singh's work has focused on characterizing immune reconstitution syndrome in organ transplant recipients with opportunistic infections—and on understanding how manipulation of iatrogenic immunosuppressants has the ability to alter the host immunologic milieu, posing a risk for this poorly understood entity.

**Nicolas Sluis-Cremer PhD**
Dr. Sluis-Cremer's laboratory uses a multi-disciplinary approach that includes biophysics, biochemistry, virology, and analysis of clinical samples to gain insight into the mechanisms of action of antiretroviral drugs; antiviral and antimicrobial drug resistance; and understanding how HIV-1 persists in infected individuals despite potent antiretroviral therapy. His lab uses state-of-the-art biophysical methods, including transient kinetic and single-molecule fluorescence approaches, to define how small molecules affect retroviral enzyme function, the intramolecular protein conformational dynamics, and the intermolecular enzyme-substrate interactions. Dr. Sluis-Cremer's HIV-1 resistance research focuses on identifying drug resistance mutations that are selected in infected-individuals failing therapy, defining the mechanisms by which these mutations decrease drug susceptibility, and predicting how acquired or transmitted drug resistance mutations impact treatment options. His lab also studies antibiotic resistance and is exploring novel therapeutic approaches to reverse fosfomycin resistance. In regard to HIV-1 persistence, the lab focuses on characterizing the latent pool of HIV-1 infection that resides in resting CD4+ T cells, in particular the naïve and central memory subsets, using novel primary cell models of HIV-1 latency and by studying purified subsets of the resting CD4+ T cell population from HIV-infected individuals on suppressive antiretroviral therapy.

**Peter Veldkamp MD MS**
Dr. Veldkamp's major areas of interest are orthopedic and neurosurgical infections. He also is interested in preventing adverse outcomes from antibiotics.

**Paschalis Vergidis MD**
Dr. Vergidis is studying Candida-bacterial interactions and Candida gene expression using a whole-genome sequencing approach.

**Emanuel Vergis MD MPH**
Dr. Vergis is interested in the behavioral and psychosocial aspects of HIV prevention. He was the principal investigator on several clinical research projects conducted in the HIV/AIDS clinic that focused on various non-biomedical prevention strategies.

**J. Viehman MD**
Dr. Viehman focuses his clinical research in several areas, including drug resistance, antibiotic stewardship, and quality improvement. Currently, he is working on projects evaluating patient risk factors for drug-resistant pathogens, including vancomycin-resistant Enterococcus faecium. In addition, he is evaluating barriers to vaccination against Streptococcus pneumoniae in patients who meet appropriate indications.

**Mohamed Yassin MD PhD**
Dr. Yassin's research interests center on decreasing hospital-acquired infections. His areas of focus are infection prevention and hospital epidemiology; cost effectiveness analysis (CEA); Legionella prevention in hospital water; ventilator-associated pneumonia; surveillance for multidrug resistant organisms (MRSA, Acinetobacter, and other Gram negative resistant pathogens); and endoscopic processing and microbiological evaluation.
Faculty Research and Other Scholarly Activities

Rima Abdel-Massih MD
- Member, Antimicrobial Management Program, UPMC, 2009-present
- Ad-hoc reviewer, *Transplant Infectious Diseases*, 2009 to present
- Member, Internal Medicine Residency Application Interviewing Committee, University of Pittsburgh Medical Center, 2010-present
- Member, ID Educational Initiative Workgroup, American Society of Transplantation, 2011-present

Zandrea Ambrose PhD
- Reviewer, *AIDS Research and Therapy; Antimicrobial Agents and Chemotherapy; Archives of Virology; Biology; Journal of General Virology; Journal of Virology; PLoS ONE; PLoS Pathogens; Retrovirology and Virology*, 2008-present
- Academic Editor, *PLoS ONE* Editorial Board, 2009-present
- Editor, *AIDS Research and Human Retroviruses* Young Investigator Editorial Board, 2011-present
- Member, PhD Thesis committee, Jennifer Zerbato, University of Pittsburgh School of Medicine, Molecular Virology and Microbiology Program, 2012-present
- Member, PhD Thesis committee, Kevin Raehtz, University of Pittsburgh School of Medicine, Molecular Virology and Microbiology Program, 2012-present
- Member, Institutional Biosafety Committee (IBC), University of Pittsburgh, 2012-present
- Academic Editor, *PeerJ* Editorial Board, 2012-present
- Member, PhD Thesis committee, Ryan Slack, University of Pittsburgh School of Medicine, Molecular Biophysics and Structural Biology Program, 2013-present
- Thesis advisor, Kevin Melody PhD, University of Pittsburgh Graduate School of Public Health, Department of Infectious Disease and Microbiology, T32 Pitt AIDS Research Training (PART) Program grantee, 2013-2015
- Member, PhD Thesis committee, Douglas Fischer, University of Pittsburgh School of Medicine, Department of Microbiology and Molecular Genetics, 2014-present
- Member, PhD Thesis committee, Zhou Zhong, University of Pittsburgh School of Medicine, Department of Molecular Virology and Microbiology, 2014-present
- Grant Reviewer, Boston College Ignite Program, 2014-present
- Grant Reviewer, Special Emphasis Panel, Neuro AIDS and Other End Organ Diseases (NAED) study section, National Institutes of Health, 2015-present

Tatiana Bogdanovich MD PhD MSc
- Member, Antimicrobial Management Program, UPMC, 2012-present

Karin Byers MD MS
- Member, Antibiotic Approval Committee, UPMC, 2002-present
- Member, Influenza Task Force, UPMC, 2004-present
- Member, Center for Vaccine Research RBL Utilization Committee, UPMC, 2010-present
- Member, IDSA Nosocomial Meningitis Guidelines Committee, 2011-present
- Member, IDSA Neurosurgical Infections Guideline Committee, 2011-present
- Member, Clinical Directors’ Council, UPMC, 2012-present
- Member, Clinical Competence Committee (Infectious Diseases), University of Pittsburgh School of Medicine, 2013-present
- Reviewer, *Clinical Neurology and Neurosurgery*, 2014-present
- Member, Pharmacy and Therapeutics subcommittee, UPMC, 2014-present

**Cornelius J Clancy MD**
- Ad-hoc reviewer, *Clinical Infectious Diseases*, 2004-present
- Member, Interviewing Committee, Internal Medicine Residency and Infectious Diseases Fellowship Program, University of Pittsburgh, 2007-present
- Member, Academic Committee, Infectious Diseases Division Fellowship Program, University of Pittsburgh, 2007-present
- Member, Research and Development Committee, VA Pittsburgh Healthcare System, 2008-present
- Member, NIH ZRG1 IDM S (81) Study Section AREA (R15): Infectious Diseases, Microbiology and Drug Discovery, 2014-present
- Director, Infection Control and Prevention, VA Pittsburgh Healthcare System, 2014-present
- Director, Antimicrobial Stewardship Program, VA Pittsburgh Healthcare System, 2014-present
- Member, Water Safety Committee, VA Pittsburgh Healthcare System, 2014-present
- Member, Pneumonia Committee, VA Pittsburgh Healthcare System, 2014-present

**Ross Cranston MD FRCP**
- Core Faculty Member, International AIDS Society–USA, 2003-present
- Member, HPV Working Group, AIDS Malignancy Consortium, 2003-present
- Member, International Rectal Microbicide Advocates, 2006-present
- Member, MACS Malignancy and Clinical Working Group, 2007-present
- Medical Director, University of Pittsburgh MACS program, 2008-present
- Director, Anal Dysplasia Clinic and Research Program, University of Pittsburgh School of Medicine, 2009-present
- Member, Steering Committee, International Rectal Microbicide Advocates, 2009-present
- Member, DMB HIV Infection and Asthma, 2011-present
- Chair, AIDS Malignancy Interest Group, University of Pittsburgh Cancer Institute, Cancer Virology Program, 2011-present
- Member, IPCP Scientific Advisory Panel: Development and Evaluation Dual Compartment Combination Microbicides, 2012-present
- Member, Safety Evaluation Committee: A Phase 1b, Randomized, Blinded, Placebo-Controlled Dose-Escalation Study of the Safety and Biological Activity of GS-9620 in HIV-1 Infected, Virologically Suppressed Adults, 2014-present

**Scott Curry MD**
- Reviewer, *Clinical Infectious Diseases*, 2008-present
- Reviewer, *BMC Infectious Diseases*, 2011-present
- Reviewer, *Applied and Environmental Microbiology*, 2012-present
- Reviewer, *Journal of Clinical Microbiology*, 2012-present
- Reviewer, *Antimicrobial Agents and Chemotherapy*, 2013-present
- Recipient, Infectious Diseases Fellows’ Excellence in Teaching Award 2015”, UPMC, 2015
Yohei Doi MD PhD
- Editorial Board, *Antimicrobial Agents and Chemotherapy*, 2010-present
- Institutional Review Board, University of Pittsburgh, 2010-present
- Associate Editor, *Journal of Infection and Chemotherapy*, 2012-present
- Editorial Board, *Diagnostic Microbiology and Infectious Disease*, 2012-present
- Ad Hoc Reviewer, *Antimicrobial Agents and Chemotherapy*, 2012-present
- Ad Hoc Reviewer, *Infection Control and Hospital Epidemiology*, 2012-present
- Ad Hoc Reviewer, *Journal of Antimicrobial Chemotherapy*, 2012-present
- Ad Hoc Reviewer, PLoS One, 2012-present
- Ad Hoc Reviewer, *Critical Care Medicine*, 2012-present
- Member, Gram-Negative Subcommittee, Antimicrobial Resistance Leadership Group, National Institute of Allergy and Infectious Diseases, 2013-present
- DSMB member, Clinical and Translational Science Institute, University of Pittsburgh, 2014-present
- Ad Hoc Reviewer, *Journal of Microbiology, Immunology and Infection*, 2015-present
- Member, Mentor, Women in International Security, 2004-present
- Term Member, Council on Foreign Relations, 2006-present
- Advisory Board Member, Department of Defense, Threat Reduction Advisory Committee, 2010-present
- CDC Active Bacterial Core Surveillance Steering Committee, 2000-present
- CDC Emerging Infectious Diseases Network Steering Committee, 2000-present
- Editorial Advisory Board, *Journal of Infectious Diseases*, March 2006-present

Carolyn Fernandes MD
- ED/ICU/Medicine Committee, Magee-Womens Hospital of UPMC, 2013-current
- Clinical Competency Committee, University of Pittsburgh School of Medicine, 2014-present

Alison Galdys MD
- Pharmacy and Therapeutics Committee, Antibiotic drug review panel, UPMC, 2014-present
- Clinical Competency Committee, UPMC, 2014-present

Gigi Kwik Gronvall PhD
- Associate Editor, *Biosecurity and Bioterrorism, Biodefense Strategy, Science and Practice*, 2003-present
- Member, mentor, Women in International Security 2004-present
- Expert Advisor and Reviewer, NIAID Southeast Regional Center for Excellence for Biodefense and Emerging Infection (SERCEB) Policy, Ethics and Law Core (PEL Core), in developing training modules to be used by scientists at all NIAID Regional Centers for Excellence, 2004-present
- Term Member, Council on Foreign Relations, 2006-present
- AAAS Committee on Scientific Freedom and Responsibility, 2007-present
- Advisory Board Member, Department of Defense, Threat Reduction Advisory Committee, 2010-present
- CDC Active Bacterial Core Surveillance Steering Committee, 2000-present
- CDC Emerging Infectious Diseases Network Steering Committee, 2000-present
- Editorial Advisory Board, *Journal of Infectious Diseases*, March 2006-present
- American Epidemiological Society, 2006-present
- Voting Member, Advisory Committee on Immunization Practices, 2012-present
- Chairman, Allegheny County Board of Health, 2012-present
- Ex officio member, Blue Ribbon Study Panel on Biodefense Meeting 4: Response and Recovery2015

Lee H Harrison MD
- Chairman, Allegheny County Board of Health, 2012-present
- Voting Member, Advisory Committee on Immunization Practices, Centers for Diseases Control, 2012-present

Donald Henderson MD MPH
- Expert, WHO International Health Regulations, 2008-present
- Member, One Health Initiative Honorary Advisory Board, 2013-present

Ken Ho MD MPH
- Education Committee, Gay Lesbian Medical Association, 2010-present
- Member, Pharmacovigilance Safety Officer, Microbicide Trials Network, 2011-present
- University of Pittsburgh Institutional Review Board, Committee G, 2013-present
- Board Member, Pittsburgh AIDS Task Force, 2014-present

Thomas Inglesby MD
- Co-Editor in Chief, Biosecurity and Bioterrorism, Biodefense Strategy, Practice, and Science, 2003-present
- Biological Emergency Advisory Team, Department of Homeland Security, 2007-present
- National Bio Surveillance Advisory Subcommittee, Centers for Disease Control, 2010-present
- Chair, Board of Scientific Counselors, Office of Public Health Preparedness and Response, Centers for Disease Control, 2011-present
- Chair, Governance Working Group, Centers for Disease Control National Health Security Preparedness Index, 2012-present
- Co-Chair, Steering Group, Centers for Disease Control National Health Security Preparedness Index, 2012-present
- Member, Maryland Governor’s Emergency Management Advisory Council, 2012-present

Eun Jeong Kwak MD
- Reviewer, American Journal of Transplantation, 2008-present
- Reviewer, Liver Transplantation Journal, 2008-present
- Reviewer, Transplant Infectious Diseases, 2008-present
- Quarterly Pharmacy and Therapeutics Committee, System-wide committee, University of Pittsburgh Medical Center, 2012-present

Bernard Macatangay MD
- Elected Member, End-Organ and Inflammation Transformative Science Group, AIDS Clinical Trials Group (ACTG), 2014-present
- Admissions Interview Committee, University of Pittsburgh School of Medicine, 2010-present
• Medicine Residency and Infectious Diseases Fellowship Interview Committee, University of Pittsburgh School of Medicine, 2010-present
• Clinical Working Group, Multicenter AIDS Cohort Study, 2011-present
• Immune Activation Focus Group, ACTG, 2014-present
• Clinical Working Group, Multicenter AIDS Cohort Study (MACS), 2014-present

Deborah McMahon MD
• Institutional Biosafety Committee, University of Pittsburgh, 2005-present
• Project Director, Twinning Partnership with Catholic University of Mozambique, 2006-present
• Clinical Advisory Committee, National HIVQUAL Project, 2008-present
• Antiretroviral Strategies Committee, AIDS Clinical Trials Group (ACTG), 2011-present
• Member, Special Pharmaceutical Benefits Program, PA DPW, 2010-present
• Chair, Drug Utilization and Review Committee, Special Pharmaceutical Benefits Program, Pennsylvania Dept. of Health, 2010-present
• Medical Director and Member, Executive Committee, Brother’s Brother Foundation, 2010-present

John Mellors MD
• Scientific Committee Member, Conference on Retroviruses and Opportunistic Infections (CROI), 1994-present
• Editor, HIV Database, Los Alamos National Laboratory, 1995-present
• Co-Chair, International Workshop on HIV Drug Resistance and Combination Therapies, 1996-present
• Organizing Committee, International Workshop on HIV Drug Resistance and Combination Therapies, 1996-present
• Consultant, Center for Biologics Evaluation and Research, Food and Drug Administration, 1997-present
• Organizer, Symposium on Antiviral Drug Resistance Symposium, 2000-present
• NIH-Sponsored Microbicide Trials Network (MTN) Executive Committee and Central Laboratory Committee, and MTN Director of Virology, 2006-present
• H1N1 Influenza Task Force, 2009-present
• Chair, AIDS Clinical Trials Group (ACTG) Network’s HIV Reservoirs and Viral Eradication (“Cure”) Transformative Science Group (TSG), 2011-present
• Distinguished Editor, Second Stage Reviewer, RCI Challenge Applications (Infectious Diseases, Microbiology and Immunology,) NIH (Panel ZRG1 1MM-E Calbert Laing, PhD, Panel Manager) 2012-present
• International Microbicides Conference Scientific Program Committee, 2012-present

Carlene Muto MD MS
• Medical Director, UPMC Hospital Epidemiology Program, 1999-present
• Chair, UPMC Hospital Infection Prevention Committee, 1999-present
• Editorial Board, Infection Control and Hospital Epidemiology, 2001-present
• Editorial Board, Clinical Infectious Diseases, 2002-present
• ViroPharma Incorporated CDAD Advisory Board, 2005-present
• Pennsylvania Healthcare Associated Infection Advisory Panel, 2007-present
• Principal Investigator, Pennsylvania SSI Collaborative, 2010-present

Minh-Hong Nguyen MD
• Reviewer, Antimicrobial Agents & Chemotherapy, 1994-present
• Reviewer, Clinical Infectious Diseases; Journal of Infectious Diseases; 1995-present

Department of Medicine

http://www.dom.pitt.edu/id
• Reviewer; Transplantation; Transplant Infectious Diseases, 2008-present
• Reviewer, American Journal of Transplantation, 2009-present
• Ad-hoc Reviewer, PO1 Award, NIAID, 2011-present
• Ad-hoc Reviewer, T32, K awards, NIAID, 2011-present
• Ad-hoc Reviewer, SBIR and STIR award, NIAID, 2012-present
• Chair, Molecular Diagnostics section, Aspergillosis in Solid Organ Transplant section and Airway Aspergillosis section of Aspergillosis Management Guidelines, Infectious Diseases Society of America, 2014-present
• Scientific Editor, PLoS ONE, 2014-present

Urvi M. Parikh, PhD
• Viral Quality Assurance Advisory Board, 2010-present

Sharon Riddler MD MPH
• Reviewer, AIDS, 2000-present
• Reviewer, Journal of Acquired Immunodeficiency Syndrome, 2003-present
• Reviewer, Journal of Infectious Diseases; European Journal of Clinical Investigation, 2004-present
• Member, NIAID Clinical Trial Implementation Cooperative Agreement (U01) Review Committee (ZAI1 UKS-A (M3), 2014-present
• Reviewer, FDA, Office of Orphan Products Development (FY 2016) Infectious Disease Grant Panel, 2015-present

Monica Schoch-Spana PhD
• Associate Editor, Biosecurity and Bioterrorism, Biodefense Strategy, Practice and Science, 2002-present
• Steering Committee, Disaster Roundtable, National Research Council, 2005-present
• Executive Steering Committee, National Consortium for the Study of Terrorism and Responses to Terrorism (START), a DHS University Center of Excellence, 2008-present
• Advisory member, Community Health Resilience Working Group, National Biodefense Science Board, U.S. Department of Health and Human Services, 2013-present
• Member, Community Preparedness, Recovery, and Resilience Workgroup,
• Ad-hoc reviewer, National Science Foundation Review Panel, 2013-present
• Advisory member, Roundtable on Risk, Resilience, and Extreme Events, National Research Council, 2014-present
• Report Reviewer, Institute of Medicine Forum on Medical and Public Health Preparedness for Catastrophic Events, Regional Disaster Response Coordination to Support Health Outcomes: Summary of a Workshop Series, Washington, DC, 2015

Ryan Shields PharmD
• Reviewer, Medical Mycology, 2012-present
• Reviewer, Transplant Infectious Diseases, 2012-present
• Reviewer, Antimicrobial Agents and Chemotherapy, 2013-present
• Reviewer, Journal of Antimicrobial Chemotherapy, 2013-present
• Reviewer, American Journal of Infection Control, 2013-present
• Ad-hoc scientific peer-reviewer, *PLoS ONE*, 2014-present
• Ad-hoc scientific peer-reviewer, *BMC Research Notes*, 2015-present
• Ad-hoc reviewer, *Diagnostic Microbiology and Infectious Diseases*, 2015-present

Fernanda Silveira MD MS

• ID Educational Initiative Workgroup, American Society of Transplantation (AST), 2007-present
• Chair, Infectious Diseases Council, International Society for Heart and Lung Transplantation, 2013-2015
• Reviewer, *Transplantation*, 2013-present
• Reviewer, International Society for Heart and Lung Transplantation, 2013-present
• Associate Editor, *Clinical and Biomedical Research*, 2014-present
• Writing Committee, Practice Consensus Document for Strategies to Prevent and Manage Infections Related to Mechanical Circulatory Devices, International Society for Heart and Lung Transplantation, 2015-present
• Past Chair, Infectious Diseases Council, International Society for Heart and Lung Transplantation, 2015-present

Nina Singh MD

• Joint Research Awards Committee, Infectious Diseases Society of America, 2011-present
• Chair, Panel for Development of Guidelines for Donor-Derived Fungal Infections in Organ Transplant Recipients, 2013-present
• Member, INSIGHT Post-Transplant Infections Scientific Interest Group, 2013-present
• Associate Editor, *Transplantation*, 2014-present
• Member, External Advisory Committee for T32 “Training Program in Infectious Diseases in the Immunocompromised Host”, Fred Hutchinson Cancer Research Center, 2015-present

Nicolas Sluis-Cremer PhD

• Scientific Committee Member, HIV DART, Frontiers in Drug Development for Antiretroviral Therapies, 2010-present
• Reviewer (Grant), NIH Study Section, Special Emphasis Panel/Scientific Review Group AARR-J (AIDS Predoctoral and Postdoctoral), 2011-present
• Reviewer, NSF Grant, Chemistry of Life Processes Program, Division of Chemistry, 2011-present
• Reviewer, NIH Study Section, Special Emphasis Panel in response to RFA-AI-12-003 entitled “Integrated Preclinical/clinical Program for HIV Topical Microbicides (IPCP-HTM)”, 2011-present
• Ad-hoc reviewer, *AIDS*, 2013-present
• Ad-hoc reviewer, *Retrovirology*, 2013-present
• Ad-hoc reviewer, *Virology*, 2013-present
• Ad-hoc reviewer, *Biochemistry*, 2013-present
• Ad-hoc reviewer, *Journal of Virology*, 2013-present
• Ad-hoc reviewer, *Journal of Biological Chemistry*, 2013-present
• Ad-hoc reviewer, *Antimicrobial Agents & Chemotherapy*, 2013-present
• Ad-hoc reviewer, *Nature*, 2013-present
Peter Veldkamp MD MS
- Academy of Master Educators, University of Pittsburgh School of Medicine, 2009-present

Paschalis Vergidis MD
- Reviewer, *Transplant Infectious Diseases*, 2010-present
- Reviewer, *Journal of Infection and Chemotherapy*, 2014-present
- Mentor, Infectious Disease Society of America Education and Research Foundation Medical Scholars Program, 2015-present

Emanuel Vergis MD MS MPH
- Carroll J. Reynolds History of Medicine Society, 1993-present
- HIV/AIDS Program Continuous Quality Improvement and Quality Management Committee, 2000-present
- IDSA Medical Scholars Program Committee, 2001-present
- Member, Accreditation, Review & Quality (ARQC) subcommittee of the Graduate Medical Education committee, 2003-present
- Community Advisory Board, Pitt Men's Study, 2006-present
- Pneumonia Workgroup, UPMC, 2010-present
- Regional HIV Strategic Collaborative, 2014-present
- Ad-hoc reviewer, *Clinical Medicine*, 2012-present
- Ad-hoc reviewer, *Infection Disorder and Drug Targets*, 2012-present
- Ad-hoc reviewer, *Middle East Fertility Society Journal*, 2012-present
- IDSA ID Career Task Force subcommittee, 2013-present

J. Alexander Viehman, MD
- Member, Antimicrobial Management Program, University of Pittsburgh Medical Center, 2013-present

Mohamed Yassin MD PhD
- Chair, Infection Control Committee, UPMC Mercy, 2011-present
- Volunteer Physician, Free Clinic, Braddock, PA, 2012-present
- Infection Control System-wide Committee, UPMC, 2013-present
- Antibiotic Core Committee, UPMC, 2013-present
- Quality Improvement Committee, UPMC Mercy, 2013-present
- E-practice Guide Committee, UPMC, 2013-present
<table>
<thead>
<tr>
<th>PUBLIC HEALTH SERVICE</th>
<th>PROJECT TITLE</th>
<th>AWARDING INSTITUTION</th>
<th>DIRECT COSTS</th>
<th>INDIRECT COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMBROSE, ZANDREA</td>
<td>PITTSBURGH CENTER FOR HIV PROTEIN INTERACTIONS (PCHPI)</td>
<td>NIGMS</td>
<td>$199,381</td>
<td>$88,359</td>
</tr>
<tr>
<td>AMBROSE, ZANDREA</td>
<td>VISUALIZATION OF IN VIVO HIV-1 VAGINAL TRANSMISSION IN THE PRESENCE AND ABSENCE OF PREP</td>
<td>NIAID</td>
<td>$208,562</td>
<td>$79,202</td>
</tr>
<tr>
<td>CLANCY, CORNELIUS</td>
<td>EVOLUTION OF KPC-K. PNEUMONIAE THAT PERSIST IN PATIENTS ON PROLONGED ANTIBIOTICS</td>
<td>NIAID</td>
<td>$171,692</td>
<td>$56,148</td>
</tr>
<tr>
<td>CLANCY, CORNELIUS</td>
<td>IL-17 RECEPTOR SIGNALING IN THE ORAL MUCOSA</td>
<td>NIDCR</td>
<td>$615</td>
<td>$332</td>
</tr>
<tr>
<td>CLANCY, CORNELIUS</td>
<td>IMAGING AND PK-PD OF MICAFUNGIN AT SITE OF CANDIDA GLABRATA INFECTION IN VIVO</td>
<td>NIAID</td>
<td>$97,125</td>
<td>$27,000</td>
</tr>
<tr>
<td>CRANSTON, ROSS</td>
<td>AIDS MALIGNANCY CONSORTIUM (AMC)</td>
<td>UNIVERSITY OF CALIFORNIA LOS ANGELES/ NCI</td>
<td>$50,000</td>
<td>$27,000</td>
</tr>
<tr>
<td>CRANSTON, ROSS</td>
<td>DELIVERY OF RECTAL ENEMA AS MICROBICIDE (DREAM)-PROJECT 1</td>
<td>JOHNS HOPKINS UNIVERSITY/ NIAID</td>
<td>$54,182</td>
<td>$29,258</td>
</tr>
<tr>
<td>CRANSTON, ROSS</td>
<td>GRIFFITHSIN-BASED RECTAL MICROBICIDES FOR PREVENTION OF VIRAL ENTRY (PREVENT)-PROJECT 3</td>
<td>UNIVERSITY OF LOUISVILLE/ NIAID</td>
<td>$118,879</td>
<td>$64,195</td>
</tr>
<tr>
<td>CRANSTON, ROSS</td>
<td>ACTG PROTOCOL A5298 (PROTOCOL CHAIR)</td>
<td>BRIGHAM AND WOMEN'S HOSPITAL, INC. / NIAID</td>
<td>$5,000</td>
<td>$2,700</td>
</tr>
<tr>
<td>DOI, YOHEI</td>
<td>CONSORTIUM ON RESISTANCE AGAINST CARBAPENEMS IN KLEBSIELLA PNEUMONIAE AND OTHER ENTEROBACTERIACEAE (CRACKLE): A PROSPECTIVE, OBSERVATIONAL COHORT STUDY</td>
<td>DUKE UNIVERSITY/ NIAID</td>
<td>$2,597</td>
<td>$1,403</td>
</tr>
<tr>
<td>DOI, YOHEI</td>
<td>GRAM NEGATIVE ARLG STEERING COMMITTEE CHAIR</td>
<td>DUKE UNIVERSITY/ NIAID</td>
<td>$7,945</td>
<td>$4,291</td>
</tr>
<tr>
<td>DOI, YOHEI</td>
<td>ENHANCING NEUTROPHIL RESPONSES TO COUNTER MDR GRAM NEGATIVE BACTERIAL PNEUMONIA</td>
<td>NIAID</td>
<td>$5,945</td>
<td>$3,210</td>
</tr>
<tr>
<td>DOI, YOHEI</td>
<td>ANTIBACTERIAL RESISTANCE LEADERSHIP GROUP (ARLG) CRACKLE STUDY</td>
<td>UNIVERSITY OF NORTH CAROLINA/ NIAID</td>
<td>$11,000</td>
<td>$5,940</td>
</tr>
<tr>
<td>DOIs/Names</td>
<td>Title</td>
<td>Agency</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>----------------------------------------------------------------------</td>
<td>--------------</td>
<td>--------------</td>
<td>----------------</td>
</tr>
<tr>
<td>DOI, YOHEI</td>
<td>COLISTIN-RESISTANT ACINETOBACTER BAUMANNII</td>
<td>NIAID</td>
<td>$235,199</td>
<td>$107,730</td>
</tr>
<tr>
<td>DOI, YOHEI</td>
<td>MECHANISMS AND IMPLICATIONS OF FOSFOMYCIN RESISTANCE IN ESCHERICHIA COLI</td>
<td>NIAID</td>
<td>$50,000</td>
<td>$25,200</td>
</tr>
<tr>
<td>DOI, YOHEI</td>
<td>PROCALCITONIN ANTIBIOTIC CONSENSUS TRIAL (PROACT)</td>
<td>NIGMS</td>
<td>$2,971</td>
<td>$1,604</td>
</tr>
<tr>
<td>HARRISON, LEE</td>
<td>ANALYZING ADULT PNEUMOCOCCAL VACCINATION IMPLEMENTATION IN THE UNDERSERVED</td>
<td>NIAID</td>
<td>$5,627</td>
<td>$3,039</td>
</tr>
<tr>
<td>HARRISON, LEE</td>
<td>GENOMIC EPIDEMIOLOGY FOR HOSPITAL OUTBREAK DETECTION</td>
<td>NIAID</td>
<td>$95,049</td>
<td>$38,128</td>
</tr>
<tr>
<td>HO, KEN SUJIN</td>
<td>CENTER/COORDINATION, ANALYSIS AND MANAGEMENT / MACS</td>
<td>JOHNS HOPKINS UNIVERSITY / NIAID</td>
<td>$7,182</td>
<td>$3,878</td>
</tr>
<tr>
<td>HO, KEN SUJIN</td>
<td>FEASIBILITY OF SHORT-TERM PREP UPTAKE FOR MSM WITH EPISODIC HIGH-RISK FOR HIV</td>
<td>NIMH</td>
<td>$45,712</td>
<td>$24,685</td>
</tr>
<tr>
<td>MACATANGAY, BERNARD</td>
<td>PITTSBURGH ACTG IMMUNOLOGY SPECIALTY LABORATORY</td>
<td>BRIGHAM AND WOMEN'S HOSPITAL, INC. / NIAID</td>
<td>$31,267</td>
<td>$16,884</td>
</tr>
<tr>
<td>MARSH, JANE</td>
<td>THE MARYLAND EMERGING INFECTIONS PROGRAM (PREVENTION AND PUBLIC HEALTH FUND) 2014-2015</td>
<td>JOHNS HOPKINS UNIVERSITY / CDC</td>
<td>$15,309</td>
<td>$8,267</td>
</tr>
<tr>
<td>MARSH, JANE</td>
<td>CORE ABC ACTIVITIES + FOODNET ACTIVE SURVEILLANCE AND AUDITS STATEWIDE</td>
<td>JOHNS HOPKINS UNIVERSITY / CDC</td>
<td>$195,722</td>
<td>$59,740</td>
</tr>
<tr>
<td>MCMAHON, DEBORAH D</td>
<td>ADIPOSITY AND AIRWAY INFLAMMATION IN HIV-ASSOCIATED AIRWAY DISEASE</td>
<td>NHLBI</td>
<td>$8,641</td>
<td>$4,666</td>
</tr>
<tr>
<td>MCMAHON, DEBORAH D</td>
<td>PENNSYLVANIA/MIDATLANTIC AETC, HRSA</td>
<td>HRSA</td>
<td>$13,068</td>
<td>$1,046</td>
</tr>
<tr>
<td>MCMANNON, DEBORAH D</td>
<td>AIDS CLINICAL TRIAL GROUP: ACTG S315-5321 PROTOCOL CHAIR</td>
<td>BRIGHAM AND WOMEN'S HOSPITAL, INC. / NIAID</td>
<td>$18,312</td>
<td>$9,889</td>
</tr>
<tr>
<td>MELLORS, JOHN W.</td>
<td>SIMPLIFIED ASSAYS OF LATENT BUT INDUCIBLE HIV-1 RESERVOIRS</td>
<td>NIAID</td>
<td>$165,341</td>
<td>$63,540</td>
</tr>
<tr>
<td>MELLORS, JOHN W.</td>
<td>UNIVERSITY OF PITTSBURGH MULTICENTER AIDS COHORT STUDY (MACS)</td>
<td>NIAID</td>
<td>$107,311</td>
<td>$57,948</td>
</tr>
</tbody>
</table>

Department of Medicine  
http://www.dom.pitt.edu/id
<table>
<thead>
<tr>
<th>Project Title</th>
<th>Institution/Grantor</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latent reservoir characterization and correlations with neuropsychiatric function and thymic output over 12 years in HIV-infected children given early antiretroviral treatment in South Africa</td>
<td>STELLENBOSCH UNIVERSITY/ NIMH</td>
<td>$40,053</td>
<td>$21,629</td>
</tr>
<tr>
<td>Pitt-Ohio State - Georgetown Clinical Trials Unit</td>
<td>NIAID</td>
<td>$1,125,588</td>
<td>$357,718</td>
</tr>
<tr>
<td>AIDS clinical trial group: ACTG Protocol A5314</td>
<td>BRIGHAM AND WOMEN’S HOSPITAL, INC./ NIAID</td>
<td>$51,300</td>
<td>$27,702</td>
</tr>
<tr>
<td>Microbicide trials network virology core</td>
<td>MAGEE WOMENS HOSPITAL/ NIAID</td>
<td>$127,329</td>
<td>$80,537</td>
</tr>
<tr>
<td>AIDS clinical trial group: ACTG Protocol</td>
<td>BRIGHAM AND WOMEN’S HOSPITAL, INC./ NIAID</td>
<td>$347,129</td>
<td>$187,442</td>
</tr>
<tr>
<td>University of Pittsburgh virology specialty laboratory</td>
<td>BRIGHAM AND WOMEN’S HOSPITAL, INC./ NIAID</td>
<td>$208,848</td>
<td>$112,778</td>
</tr>
<tr>
<td>HIV prevention trials network (HPTN)</td>
<td>FHI 360/ NIAID</td>
<td>$41,326</td>
<td>$3,857</td>
</tr>
<tr>
<td>Mechanisms of HIV drug resistance</td>
<td>SAIC FREDERICK CANCER R&amp;D CENTER / NIH</td>
<td>$299,571</td>
<td>$161,769</td>
</tr>
<tr>
<td>AIDS clinical trials group - VSL</td>
<td>BRIGHAM AND WOMEN’S HOSPITAL, INC./ NIAID</td>
<td>$256,429</td>
<td>$119,571</td>
</tr>
<tr>
<td>MTN virology core</td>
<td>MAGEE WOMENS HOSPITAL/ NIAID</td>
<td>$295,893</td>
<td>$159,783</td>
</tr>
<tr>
<td>Longitudinal evaluation of HIV-associated lung disease phenotypes</td>
<td>NHLBI</td>
<td>$53,198</td>
<td>$28,727</td>
</tr>
<tr>
<td>Antibacterial resistance leadership group: CREST</td>
<td>DUKE UNIVERSITY/ NIAID</td>
<td>$88,023</td>
<td>$44,833</td>
</tr>
<tr>
<td>A randomized double-blind, phase 3 study comparing the efficacy and safety of high-titer versus low-titer anti-influenza immune plasma for the treatment of severe influenza A</td>
<td>SOCIAL AND SCIENTIFIC SYSTEMS, INC./ NCI</td>
<td>$58,831</td>
<td>$31,769</td>
</tr>
<tr>
<td>Name</td>
<td>Project Description</td>
<td>DIRECT COSTS</td>
<td>INDIRECT COSTS</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>--------------------------------------------------------------------------------------</td>
<td>--------------</td>
<td>---------------</td>
</tr>
<tr>
<td>NGUYEN, M. HONG</td>
<td>A RANDOMIZED, OPEN-LABEL, PHASE 2, MULTICENTER SAFETY AND EXPLORATORY EFFICACY STUDY OF INVESTIGATIONAL ANTI-INFLUENZA IMMUNE PLASMA FOR THE TREATMENT OF INFLUENZA</td>
<td>$1,754</td>
<td>$947</td>
</tr>
<tr>
<td>NGUYEN, M. HONG</td>
<td>CANDIDA ALBICANS GENE EXPRESSION DURING INTRA-ABDOMINAL INFECTIONS</td>
<td>$77,530</td>
<td>$27,997</td>
</tr>
<tr>
<td>RIDDLER, SHARON A.</td>
<td>AIDS CLINICAL TRIALS GROUP: EXECUTIVE COMMITTEE MEMBER</td>
<td>$7,792</td>
<td>$4,208</td>
</tr>
<tr>
<td>RIDDLER, SHARON A.</td>
<td>LEADERSHIP AND OPERATIONS CENTER (LOC): MICROBICIDE TRIALS NETWORK</td>
<td>$48,198</td>
<td>$24,002</td>
</tr>
<tr>
<td>RIDDLER, SHARON A.</td>
<td>DIPYRIDAMOLE AS A MODULATOR OF HIV-1 INFLAMMATION BY ADENOSINE REGULATION</td>
<td>$536,413</td>
<td>$127,171</td>
</tr>
<tr>
<td>RIDDLER, SHARON A.</td>
<td>LEADERSHIP OPERATIONS CENTER (LOC): MICROBICIDE TRIALS NETWORK MTN 029 YEAR 10 PROTOCOL FUNDS</td>
<td>$4,782</td>
<td>$2,583</td>
</tr>
<tr>
<td>RIDDLER, SHARON A.</td>
<td>LEADERSHIP OPERATIONS CENTER (LOC): MICROBICIDE TRIALS NETWORK MTN 023 PROTOCOL FUNDS</td>
<td>$37,481</td>
<td>$13,057</td>
</tr>
<tr>
<td>RIDDLER, SHARON A.</td>
<td>LEADERSHIP OPERATIONS CENTER, AIDS CLINICAL TRIALS GROUP (ACTH: PROTOCOL CHAIR SUPPORT)</td>
<td>$8,750</td>
<td>$4,725</td>
</tr>
<tr>
<td>RIDDLER, SHARON A.</td>
<td>LEADERSHIP OPERATIONS CENTER (LOC): MICROBICIDE TRIALS NETWORK (YR 9 PF)</td>
<td>$9,185</td>
<td>$4,960</td>
</tr>
<tr>
<td>RIDDLER, SHARON A.</td>
<td>LOC: MICROBICIDES TRIALS NETWORK</td>
<td>$167,607</td>
<td>$89,913</td>
</tr>
<tr>
<td>RIDDLER, SHARON A.</td>
<td>AIDS CLINICAL TRIAL GROUP: PROTOCOL FUNDS</td>
<td>$245,659</td>
<td>$127,258</td>
</tr>
<tr>
<td>RIDDLER, SHARON A.</td>
<td>LEADERSHIP OPERATIONS CENTER (LOC): MICROBICIDE TRIALS NETWORK MTN 026 YEAR 10 PROTOCOL FUNDS</td>
<td>$51,111</td>
<td>$24,450</td>
</tr>
<tr>
<td>SHIELDS, RYAN</td>
<td>CASPOFUNGIN PHARMACOKINETICS-PHARMACODYNAMICS DURING INTRA-ABDOMINAL CANDIDIASIS</td>
<td>$146,928</td>
<td>$10,714</td>
</tr>
</tbody>
</table>

Department of Medicine

[http://www.dom.pitt.edu/id](http://www.dom.pitt.edu/id)
<table>
<thead>
<tr>
<th>Project Title</th>
<th>Principal Investigator</th>
<th>Description</th>
<th>Sponsor/Grantor</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP 15-002: FLU VACCINE EFFECTIVENESS IN THOSE HOSPITALIZED IN A LARGE DIVERSE HEALTH SYSTEM</td>
<td>SILVEIRA, FERNANDA</td>
<td>CDC</td>
<td></td>
<td>$10,787</td>
<td>$5,825</td>
</tr>
<tr>
<td>PROSPECTIVE OBSERVATIONAL EVALUATION OF THE ASSOCIATION BETWEEN THE DAY 2 VANCOMYCIN EXPOSURE AND FAILURE RATES AMONG ADULT HOSPITALIZED PATIENTS WITH MRSA BLOODSTREAM INFECTIONS (PROVIDE)</td>
<td>SILVEIRA, FERNANDA</td>
<td>DUKE UNIVERSITY/ NIAID</td>
<td></td>
<td>$13,393</td>
<td>$7,232</td>
</tr>
<tr>
<td>CORE_PLUS OPTION_A_C_INFLUENZA SURVEILLANCE AND VACCINE EFFECTIVENESS IN A LARGE DIVERSE NETWORK</td>
<td>SILVEIRA, FERNANDA</td>
<td>CENTER FOR DISEASE CONTROL</td>
<td></td>
<td>$50,295</td>
<td>$25,902</td>
</tr>
<tr>
<td>PROPHYLAXIS VERSUS PREEMPTIVE THERAPY FOR CMV IN R-D+ LIVER TRANSPLANT RECIPIENTS</td>
<td>SINGH, NINA</td>
<td>NIAID</td>
<td></td>
<td>$853,644</td>
<td>$156,206</td>
</tr>
<tr>
<td>CONFORMATIONAL DYNAMICS AND INHIBITOR RESPONSES OF HIV-1 RT RNASE H IN SOLUTION</td>
<td>SLUIS-CREMER, NICOLAS</td>
<td>NIGMS</td>
<td></td>
<td>$12,000</td>
<td>$6,480</td>
</tr>
<tr>
<td>NNRT1 INDUCED CONFORMATIONAL CHANGES IN HIV 1 RT</td>
<td>SLUIS-CREMER, NICOLAS</td>
<td>NIGMS</td>
<td></td>
<td>$162,958</td>
<td>$87,997</td>
</tr>
<tr>
<td>NOVEL MECHANISMS OF HIV RESISTANCE TO RTIS</td>
<td>SLUIS-CREMER, NICOLAS</td>
<td>NIAID</td>
<td></td>
<td>$249,091</td>
<td>$127,037</td>
</tr>
<tr>
<td>HIV/AIDS CARE, HOUSING PREVENTION AND EDUCATION SERVICES</td>
<td>VERGIS, EMANUEL N.</td>
<td>JEWISH HEALTHCARE FOUNDATION/NIH</td>
<td></td>
<td>$183,823</td>
<td>$18,382</td>
</tr>
<tr>
<td>TOTAL PUBLIC HEALTH SERVICE</td>
<td></td>
<td></td>
<td></td>
<td>$7,802,333</td>
<td>$3,050,443</td>
</tr>
<tr>
<td>COMPREHENSIVE ASSESSMENT OF RESISTANCE RISK AND DEVELOPMENT OF POLICY RECOMMENDATIONS FOR MICROBICIDE/PREP ROLL OUT</td>
<td>MELLORS, JOHN W.</td>
<td>USAID</td>
<td></td>
<td>$730,663</td>
<td>$267,328</td>
</tr>
<tr>
<td>PROSPECTIVE OBSERVATIONAL STUDY OF THE RISK FACTORS FOR HOSPITAL-ACQUIRED VENTILATOR-ASSOCIATED BACTERIAL PNEUMONIA (HABP/VABP)</td>
<td>SILVEIRA, FERNANDA</td>
<td>DUKE UNIVERSITY/ FDA</td>
<td></td>
<td>$1,051</td>
<td>$568</td>
</tr>
<tr>
<td>TOTAL FEDERAL</td>
<td></td>
<td></td>
<td></td>
<td>$731,714</td>
<td>$267,896</td>
</tr>
</tbody>
</table>

Department of Medicine
http://www.dom.pitt.edu/id
<table>
<thead>
<tr>
<th>Name</th>
<th>Project Description</th>
<th>Awarding Entity</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bui, John</td>
<td>Treatment Patterns and Associated Outcomes for Serious Infections Due to Carbapenem-Resistant Enterobacteriaceae (CRE) Across United States Hospitals</td>
<td>Healthcare Innovation Technology</td>
<td>$41,000</td>
<td>$0</td>
</tr>
<tr>
<td>Doi, Yohei</td>
<td>Validation of Susceptibility Testing Methods of Carbapenem-Resistant Acinetobacter Baumannii</td>
<td>The Medicines Company</td>
<td>$37,546</td>
<td>$9,386</td>
</tr>
<tr>
<td>Mellers, John W.</td>
<td>Validation of Existing Ultra-Sensitive Assays for Quantifying HIV Persistence</td>
<td>Blood Systems Research Institute</td>
<td>$88,101</td>
<td>$9,811</td>
</tr>
<tr>
<td>Mellers, John W.</td>
<td>New Approaches to Assessing HIV Reservoirs and Their Depletion</td>
<td>Johns Hopkins University</td>
<td>$620,000</td>
<td>$62,000</td>
</tr>
<tr>
<td>Mellers, John W.</td>
<td>Bidirectional Resistance Profiling of TMC278, a Novel Non-Nucleoside Reverse Transcriptase Inhibitor (NNRTI) and Approved NNRTIs</td>
<td>Bill &amp; Melinda Gates Foundation</td>
<td>$167,651</td>
<td>$12,969</td>
</tr>
<tr>
<td>Nguyen, M. Hong</td>
<td>MSG-06 A Case Registry of Patients with Phaeohyphomycosis</td>
<td>University of Alabama at Birmingham</td>
<td>$3,375</td>
<td>$0</td>
</tr>
<tr>
<td>Parikh, Urvi</td>
<td>Antiretrovirals and Spread of Drug Resistance</td>
<td>Baylor College of Medicine/Gates F</td>
<td>$24,235</td>
<td>$242</td>
</tr>
<tr>
<td>Silveira, Fernanda</td>
<td>Influenza Virus Infections in Transplant Recipients: A Multicenter Registry</td>
<td>University Health Network</td>
<td>$14,104</td>
<td>$3,526</td>
</tr>
<tr>
<td>Silveira, Fernanda</td>
<td>Clinical Characteristics and Outcomes in Patients Diagnosed with Influenza</td>
<td>Alberta Health Services</td>
<td>$2,400</td>
<td>$600</td>
</tr>
<tr>
<td>Vergidis, Paschalis</td>
<td>Clinical Characteristics and Molecular Pathogenesis of Intra Abdominal Candidiasis</td>
<td>Veterans Research Foundation of Pittsburgh</td>
<td>$3,762</td>
<td>$865</td>
</tr>
<tr>
<td><strong>Total Society and Foundations</strong></td>
<td></td>
<td></td>
<td><strong>$1,008,007</strong></td>
<td><strong>$99,399</strong></td>
</tr>
<tr>
<td>INDUSTRY</td>
<td>DIRECT COSTS</td>
<td>INDIRECT COSTS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------------</td>
<td>--------------</td>
<td>---------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ABDEL-MASSIH, R.</td>
<td>$3,520</td>
<td>$880</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLANCY, CORNELIUS</td>
<td>$8,746</td>
<td>$1,141</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLANCY, CORNELIUS</td>
<td>$12,880</td>
<td>$4,020</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLANCY, CORNELIUS</td>
<td>$32,700</td>
<td>$8,175</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLANCY, CORNELIUS</td>
<td>$20,758</td>
<td>$5,190</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KWAK, E</td>
<td>$8,994</td>
<td>$1,800</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KWAK, E</td>
<td>$3,430</td>
<td>$467</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MACATANGAY, BERNARD</td>
<td>$56,495</td>
<td>$14,124</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ABDEL-MASSIH, R. A PHASE 3, MULTICENTER, RANDOMIZED, OPEN-LABEL STUDY TO EVALUATE THE EFFICACY AND SAFETY OF PLAZOMICIN COMPARED WITH COLISTIN IN PATIENTS WITH INFECTION DUE TO CARBAPENEM-RESISTANT ENTEROBACTERIACEAE (CRE) ACHAOGON, INC. $3,520 $880

CLANCY, CORNELIUS FUNGAL INFECTIONS POST-INFLUENZA AMONG LUNG TRANSPLANT RECIPIENTS ASTELLAS PHARMA US $8,746 $1,141

CLANCY, CORNELIUS PROTOCOL FOR THE COLLECTION AND HANDLING OF DISCARDED WHOLE BLOOD SPECIMENS FOR T2 BACTERIAL ASSAY DEVELOPMENT T2 BIOSYSTEMS $12,880 $4,020

CLANCY, CORNELIUS REAL-WORLD ECHINOCANDIN SUSCEPTIBILITY TESTING MERCK SHARP & DOHME CORPORATION $32,700 $8,175

CLANCY, CORNELIUS CEFTOLOZANE-TAZOBACTAM AGAINST PSEUDOMONAS AERUGINOSA CLINICAL ISOLATES WITH VARIOUS MECHANISMS OF RESISTANCE MERCK SHARP & DOHME CORPORATION $20,758 $5,190

KWAK, E A PHASE 3, MULTI-CENTER, RANDOMIZED, OPEN-LABEL STUDY OF CARBAVANCE (MEROPENEM/RPX7009) VERSUS BEST AVAILABLE THERAPY IN SUBJECTS WITH SELECTED SERIOUS INFECTIONS DUE TO CARBAPENEM-RESISTANT ENTEROBACTERIACEAE REMPEX PHARMACEUTICALS $8,994 $1,800

KWAK, E A MULTI-CENTER, RANDOMIZED, DOUBLE-BLIND STUDY TO COMPARE THE EFFICACY AND SAFETY OF CADAZOLID VERSUS VANCOMYCIN IN SUBJECTS WITH CLOSTRIDIUM DIFFICILE- ASSOCIATED DIARRHEA (CDAD) ACTELION $3,430 $467

KWAK, E A PHASE 1B, RANDOMIZED, BLINDED, PLACEBO-CONTROLLED DOSE ESCALATION STUDY OF THE SAFETY AND BIOLOGICAL ACTIVITY OF GS-9620 IN HIV-1 INFECTED, VIROLOGICALLY SUPPRESSED ADULTS GILEAD SCIENCES INC $56,495 $14,124
<table>
<thead>
<tr>
<th>Name</th>
<th>Project Description</th>
<th>Funding Source</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCMAHON, DEBORAH D</td>
<td>A MEDICAL INFORMATICS SYSTEM TO IMPROVE HIV/AIDS PATIENT CARE AND TRAINING OF HEALTHCARE WORKERS IN URBAN AND RURAL MOZAMBIQUE</td>
<td>GILEAD SCIENCES, INC</td>
<td>$12,210</td>
<td>$0</td>
</tr>
<tr>
<td>MELLORS, JOHN W.</td>
<td>CYTODYN PRO140 SINGLE COPY ASSAY</td>
<td>CYTODYN, INCORPORATED</td>
<td>$2,363</td>
<td>$1,453</td>
</tr>
<tr>
<td>MELLORS, JOHN W.</td>
<td>A PHASE 1B, RANDOMIZED, BLINDED, PLACEBO-CONTROLLED DOSE ESCALATION STUDY OF THE SAFETY AND BIOLOGICAL ACTIVITY OF GS-9620 IN HIV-1 INFECTED, VIROLOGICALLY SUPPRESSED ADULTS</td>
<td>GILEAD SCIENCES, INC</td>
<td>$207,408</td>
<td>$51,857</td>
</tr>
<tr>
<td>MELLORS, JOHN W.</td>
<td>QUANTIFYING REVERSAL OF HIV - LATENCY AND ELIMINATION OF LATENTLY-INFECTED CD4+ T-CELLS</td>
<td>GILEAD SCIENCES, INC</td>
<td>$30,652</td>
<td>$7,663</td>
</tr>
<tr>
<td>NGUYEN, M. HONG</td>
<td>FUNGAL INFECTIONS AMONG LUNG TRANSPLANT RECIPIENTS DESPITE VORICONazole PROPHYLAXIS</td>
<td>ASTELLAS PHARMA US</td>
<td>$18,950</td>
<td>$4,738</td>
</tr>
<tr>
<td>NGUYEN, M. HONG</td>
<td>RELEBACTAM IN COMBINATION WITH IMIPENEM AGAINST ENTEROBACTERIACEAE AND PSEUDOMONAS AERUGINOSA STRAINS EXHIBITING VARIOUS MECHANISMS OF CARBAPENEM RESISTANCE</td>
<td>MERCK</td>
<td>$8,096</td>
<td>$2,024</td>
</tr>
<tr>
<td>NGUYEN, M. HONG</td>
<td>FINANCIAL BURDEN OF CYTOMEGALOVIRUS MISMATCH (CMV DONOR+/RECIPIENT-) IN LUNG TRANSPLANT RECIPIENTS (LTR)</td>
<td>ASTELLAS PHARMA US</td>
<td>$32,250</td>
<td>$8,063</td>
</tr>
<tr>
<td>NGUYEN, MINH-HONG</td>
<td>SERIAL THERAPEUTIC AND ANTIFUNGAL MONITORING PROTOCOL (STAMP)</td>
<td>T2 BIOSYSTEMS</td>
<td>$6,580</td>
<td>-$180</td>
</tr>
<tr>
<td>NGUYEN, MINH-HONG</td>
<td>A PROSPECTIVE, MULTICENTER, OPEN-LABEL, RANDOMIZED, COMPARATIVE STUDY TO ESTIMATE THE SAFETY, TOLERABILITY, PHARMACOKINETICS, AND EFFICACY OF ORAL SCY-078 VS. STANDARD-OF-CARE FOLLOWING INITIAL INTRAVENOUS MICAFUNGIN THERAPY IN THE TREATMENT OF INVASIVE CA</td>
<td>MEDPACE</td>
<td>$8,900</td>
<td>$1,900</td>
</tr>
<tr>
<td>Name</td>
<td>Study Description</td>
<td>Sponsor</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>--------------------</td>
<td>-----------------------------------------------------------------------------------</td>
<td>----------------------------------</td>
<td>---------------</td>
<td>---------------</td>
</tr>
<tr>
<td>NGUYEN, MINH-HONG</td>
<td>OPEN LABEL STUDY OF T2BACTERIA PANEL PIVOTAL STUDY</td>
<td>T2 BIOSYSTEMS</td>
<td>$74,252</td>
<td>$16,688</td>
</tr>
<tr>
<td>NGUYEN, MINH-HONG</td>
<td>A PHASE 1B, RANDOMIZED, BLINDED, PLACEBO-CONTROLLED DOSE ESCALATION STUDY OF THE SAFETY AND BIOLOGICAL ACTIVITY OF GS-9620 IN HIV-1 INFECTED, VIROLOGICALLY SUPPRESSED ADULTS</td>
<td>ASTELLAS PHARMA GLOBAL DEVELOPMENT</td>
<td>$2,344</td>
<td>$586</td>
</tr>
<tr>
<td>RIDDLE, SHARON A.</td>
<td>MUTATION RATES AMONG C. ALBICANS AND C. GLABRATA FOLLOWING EXPOSURE TO DIFFERENT ECHINOCANDINS</td>
<td>GILEAD SCIENCES, INC</td>
<td>$138,350</td>
<td>$34,587</td>
</tr>
<tr>
<td>SHIELDS, RYAN</td>
<td>INTRA-ABDOMINAL CANDIDIASIS (IAC): RATES OF ANTIFUNGAL RESISTANCE AND TREATMENT EXPERIENCE WITH ECHINOCANDINS</td>
<td>MERCK</td>
<td>$6,191</td>
<td>$1,548</td>
</tr>
<tr>
<td>SHIELDS, RYAN</td>
<td>PERFORMANCE COMPARISON OF QUANTIFERON MONITOR IN SOLID ORGAN TRANSPLANT RECIPIENTS, QIAGEN SCIENCES, LLC</td>
<td>QIAGEN SCIENCES, LLC</td>
<td>$32,378</td>
<td>$8,095</td>
</tr>
<tr>
<td>SILVEIRA, FERNANDA</td>
<td>A PHASE 2B, RANDOMIZED, CONTROLLED TRIAL EVALUATING GS 5806 IN LUNG TRANSPLANT (LT) RECIPIENTS WITH RESPIRATORY SYNCYTIAL VIRUS (RSV) INFECTION</td>
<td>GILEAD SCIENCES</td>
<td>$10,692</td>
<td>$0</td>
</tr>
<tr>
<td>SILVEIRA, FERNANDA</td>
<td>A MULTI-CENTER COHORT STUDY OF THE SHORT AND LONG TERM SAFETY OF MICAFUNGIN AND OTHER PARENTERAL ANTIFUNGAL AGENTS, 2005-2018</td>
<td>WHISCON (FUNDED BY ASTELLAS)</td>
<td>$12,236</td>
<td>$3,059</td>
</tr>
</tbody>
</table>

**TOTAL INDUSTRY**  
$782,379  
$185,743
<table>
<thead>
<tr>
<th>Source</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUBLIC HEALTH SERVICE</td>
<td>$7,802,333</td>
<td>$3,050,443</td>
</tr>
<tr>
<td>FEDERAL</td>
<td>$731,714</td>
<td>$267,896</td>
</tr>
<tr>
<td>SOCIETY AND FOUNDATIONS</td>
<td>$1,008,007</td>
<td>$99,399</td>
</tr>
<tr>
<td>INDUSTRY</td>
<td>$782,379</td>
<td>$185,743</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$10,324,433</strong></td>
<td><strong>$3,603,481</strong></td>
</tr>
</tbody>
</table>
TEACHING ACTIVITIES

The Division continues to prioritize education by teaching medical students, medical residents, infectious disease fellows, and doctoral students in the School of Medicine and the Graduate School of Public Health. Division faculty members, who are involved with teaching medical students throughout their four years of training, facilitate small group discussions on HIV/AIDS with first-year medical students and teach in our highly rated course that introduces the basic science and microbiology of infectious diseases. Our faculty members also teach in the evidence and discovery block. Faculty members teach in various second-year courses, which focus on infections in different organ systems, and in their third-year, medical students receive an HIV didactic session during the Combined Ambulatory Medicine and Pediatric Clerkship (CAMPC). In addition, faculty members facilitate small group discussions on the management of HIV/AIDS in the ambulatory setting. Beginning in their third year, medical students can elect to rotate in the HIV/AIDS clinic where they are supervised by clinical faculty members. Both third- and fourth-year medical students can elect to rotate on the inpatient general infectious diseases (ID) consult service, as well as receive didactic teaching in antimicrobials with the pharmacology elective.

Resident teaching primarily occurs during popular elective rotations on the inpatient general ID consult service. House staff (Medicine, CCM, Obstetrics/Gynecology fellows, and Family Medicine residents) also have the opportunity to rotate in the HIV/AIDS clinic or on the Surgical ID and Transplant ID consult services, which offer one-on-one learning opportunities with the attending physician.

Faculty members in the Graduate School of Public Health’s Infectious Disease and Microbiology program also teach courses on the control and prevention of HIV/AIDS and prevention, treatment and control of global infectious diseases. Our faculty members also teach residents about tropical medicine and parasitology in the global health track.

In addition to patient-oriented teaching, the ID Division provides multiple didactic conferences:

- Weekly ID core curriculum lecture series featuring the Division’s finest lecturers
- Bi-monthly ID journal club that pairs fellows with faculty mentors to optimize the fellows’ presentations
- Weekly ID Grand Rounds, which is the Division’s showcase for fellows and faculty members to discuss the diagnosis and management of a diverse range of infectious diseases
- Thrice-monthly HIV-AIDS morbidity and mortality conference during which fellows and faculty members are educated about HIV drug resistance and updated on the latest topics of importance for this patient population
- American Academy of HIV Medicine credentialing exam preparation
- Semi-monthly Transplant ID journal club and core curriculum lectures, during which fellows and faculty members are updated on the latest topics in infection prevention, diagnosis, and management in transplant recipients
- Semi-annual fellows’ research-in-progress meetings, during which research objectives and results are presented to the Division’s faculty members and critically reviewed by its Academic Committee

The ID fellowship training program continues to provide excellent clinical training and opportunities to conduct research with nationally prominent investigators. Fellows’ development is carefully guided by faculty mentors and the Division chief, who meet one-on-one with each fellow quarterly. Fellows spend time on the general, surgical and transplantation infectious disease consult services at the UPMC Presbyterian and VAPHS sites. An infectious diseases fellowship rotation on the UPMC Shadyside hematology/oncology and bone marrow transplant services is also offered. International training sites include the Philippines, Brazil and Mozambique. Rotations at these sites are available for focusing on tropical medicine/infectious diseases.
Teaching Honors and Awards

Rima Abdel-Massih MD
- Member, Internal Medicine Residency Application Interviewing Committee, UPMC, 2010-present
- Member, ID Educational Initiative Workgroup, American Society of Transplantation, 2011-present
- Associate Director of Education, Division of Infectious Diseases, Department of Medicine, University of Pittsburgh, 2011-present
- Lecturer, Selective in Clinical Pharmacology, University of Pittsburgh School of Medicine, Fourth-year medical students, 2011-present
- Lecturer, Medical Microbiology, University of Pittsburgh School of Medicine, First-year medical students, lecture on “Antiviral drugs (non-HIV), 2012-present
- Director, Transplant Infectious Diseases Education, Division of Infectious Diseases, Department of Medicine, University of Pittsburgh, 2012-present
- Associate Director, Infectious Diseases Fellowship Program, Division of Infectious Diseases, Department of Medicine, University of Pittsburgh, 2013-present
- Member, Academic Committee, Division of Infectious Diseases, Department of Medicine, University of Pittsburgh, 2013-present

Zandrea Ambrose PhD
- Lecturer, Viral Pathogenesis (MSVM 2004), University of Pittsburgh School of Medicine, 2008-present
- Facilitator, Medical Microbiology Problem-Based Learning (MED5114), University of Pittsburgh School of Medicine, 2008-present
- Lecturer, Molecular Virology (MSVM2410/IDM2002), University of Pittsburgh School of Medicine, 2010-present
- Member, Dissertation Committee (Kevin Raehtz, Kevin Melody, Zhou Zhong, Ryan Stack, Jennifer Zerbato, Long Kwan, Matthew Lam), University of Pittsburgh Graduate School of Public Health, 2015-2016
- Mentor, Three Graduate Students (Douglas Fischer, Kevin Melody, Zhou Zhong), University of Pittsburgh Graduate School of Public Health, 2015-2016

Karin Byers MD MS
- Lecturer, “Culture Report Scenarios”, Acute Care Nurse Practitioner Program, UPMC, 2012-present
- Lecturer, “Antibiotic Management Scenarios, Acute Care Nurse Practitioner Program, UPMC, 2012-present
- Lecturer, “Endocarditis”, Internal Medicine Resident Lecture Series, University of Pittsburgh School of Medicine, 2015-2016
- Lecturer, ID Core Lecture Series, “Post-Surgical CNE Infections”, University of Pittsburgh School of Medicine, 2015-2016
- Lecturer, Neuro Critical Care Lecture Series, “CNS Infections”, University of Pittsburgh Medical Center, 2015-2016
- Lecturer, Plastic Surgery Grand Rounds, “Antibiotics in the Surgical Trauma Patient”, University of Pittsburgh Medical Center, 2015-2016
- Lecturer, Heart and Vascular Institute board review course, “Prosthetic Valves and Infections: The Infectious Diseases Physician’s Perspective”, University of Pittsburgh Medical Center, 2015-2016

Cornelius (Neil) Clancy MD
- Internal Medicine Residency Application Interviewing Committee, UPMC, 2007-present
- Infectious Diseases Fellowship Interviewing Committee, UPMC, 2007-present
• Academic Committee, Division of Infectious Diseases, Department of Medicine, University of Pittsburgh, 2007-present
• Lecturer, “Fungal Infections; Rational Use of Antibiotics”, Infectious Diseases Clinical Rotation Core Curriculum, 2008-present

**Scott Curry MD**
• Lecturer, Medical Microbiology (MED5116), University of Pittsburgh School of Medicine, 2011-present
• Facilitator, Small Group Problem-Based Learning, University of Pittsburgh School of Medicine, 2011-present

**Yohei Doi MD PhD**
• Facilitator, Medical Microbiology course for MS-1 students, Problem-Based Learning Sessions, University of Pittsburgh School of Medicine, 2008-present
• Preceptor, Physical Examination course for MS-1 students, University of Pittsburgh School of Medicine, 2009-present
• Lecturer, Medical Microbiology course for first-year medical students, University of Pittsburgh School of Medicine, 2015-2016

**Carolyn Fernandes MD**
• Facilitator, ILS Med Clinical Pharmacology, fourth-year medical students, University of Pittsburgh School of Medicine, 2015-2016
• Facilitator, Intro to Physical Exam, first-year medical students, University of Pittsburgh School of Medicine, 2015-2016

**Alison Galdys MD**
• Mentor, Scholarly Project for Zeyu Xu, third-year medical student, University of Pittsburgh School of Medicine, 2015-2016
• Lecturer, Medical Microbiology, “Healthcare-associated Infections” for first-year medical students, University of Pittsburgh, 2015-2016
• Facilitator, Problem-Based Learning selective in Medical Microbiology, for first-year medical students, University of Pittsburgh, 2015-2016

**Lee Harrison MD**
• Mentor, Two Postdoctoral students in Epidemiology (Arlete Miloque Mahumane, Mustapha Mustapha), 2015-2016

**Ken Ho MD MPH**
• Instructor, HIV-related issues, Medical Students and Residents, Pittsburgh AIDS Center for Treatment, UPMC, 2007-present
• Lecturer, “Update in HIV Research”, HIV/AIDS Educational Forum, University of Pittsburgh, 2013-present
• Lecturer, “Syphilis”, UPMC Shadyside Family Medicine Residency Program, 2015
• Co-Course Director, Orientation, first-year medical students, University of Pittsburgh medical Students, 2015-2016

**Eun Jeong Kwak MD**
• Facilitator, Clinical Ward Rounds, University of Pittsburgh Medical Center, Rounding Service, Transplant and General ID Fellows, residents and medical students, 2003-present
• Facilitator, Outpatient Clinics, University of Pittsburgh Medical Center, Rounding Service, Transplant and General ID Fellows, 2005-present

Department of Medicine  
http://www.dom.pitt.edu/id
- Lecturer, ID Fellow Core Teaching, “Treatment of non-tuberculous mycobacteria”, University of Pittsburgh Medical Center, 2011-present
- Lecturer, ID Resident Lecture Series, “Approach to Neutropenic Fever and non-tuberculous Mycobacterium,” University of Pittsburgh Medical Center, 2012-present
- Preceptor, Advanced Physical Examination Course for MS-2 students, University of Pittsburgh School of Medicine, 2012-2016
- Small Group leader, Advanced Physical Examination 2 (MED5233), four sessions for MS-2 students, University of Pittsburgh School of Medicine, 2012-2016
- Lecturer, Continuing Education sessions, University of Pittsburgh Medical Center, 2012-2016

Bernard J. Macatangay MD
- Facilitator, Medical Parasitology and Viral Infections in Travelers. Internal Medicine residents and medical students. Internal Medicine Global Health Track, University of Pittsburgh School of Medicine, 2009-present
- Lecturer, “Medical Parasitology and Viral Infections in Travels”, Internal Medicine residents and medical students, University of Pittsburgh School of Medicine, 2009-present
- Facilitator, Parasitology lab sessions, Internal Medicine residents and medical students, University of Pittsburgh School of Medicine, 2009-present
- Lecturer, “HIV Immunology”, Immunology in Health and Disease, MS-1 students, University of Pittsburgh School of Medicine, 2009-present
- Facilitator, Introduction to Being a Physician group sessions, MS-1 students, University of Pittsburgh School of Medicine, 2010-present
- Lecturer, “HIV/AIDS” and “Sexually Transmitted Infections”, Medical Microbiology, MS-1 students, University of Pittsburgh School of Medicine, 2010-present
- Facilitator, Problem-based Learning Session, Medical Microbiology, MS-1 students, University of Pittsburgh School of Medicine, 2011-present
- Lecturer, Infectious Diseases Fellowship Core Lectures in Parasitology and Tropical Medicine, 1st and 2nd year Fellows, UPMC, 2011-present
- Lecturer, “Prevention, Treatment, Control of Global Infectious Diseases”, IDM2038, Masters of Public Health students, University of Pittsburgh Graduate School of Public Health, 2013-present
- Dean’s Applicant Interviewer, University of Pittsburgh School of Medicine, (MS-1 students), 2014-present

Sarah McBeth MD
- Facilitator, Problem-based Learning Session, Intro to Being a Physician, MS-1 students, University of Pittsburgh School of Medicine, 2015-2016
- Facilitator, Problem-based Learning Session, Population Health, MS-2 students, University of Pittsburgh School of Medicine, 2015-2016

Deborah McMahon MD
- Lecturer, “Pharmacotherapy of AIDS”, Integrated Life Sciences Selective in Clinical Pharmacology, 4th year medical students, University of Pittsburgh School of Medicine, 2015-present
- Lecturer, “Prevention, Treatment and Control of Global Infectious Diseases”, HIV Management, Treatment and Comorbidities Course, Graduate Students, University of Pittsburgh Graduate School of Public Health, 2011-present

John W Mellors MD
- Mentor, Two Pre-Doctoral Associates (John Bui, Anthony Cillo) and a Postdoctoral Associate (Francis Hong), 2015-2016
• Dissertation Committee Member, Three Pre-Doctoral Associates (Jennifer Zerbato, Anthony Cillo, Kevin Melody), 2015-present

Carlene A Muto MD

Minh Hong Nguyen MD
• Lecturer, “Mould Infections”, Lecture to Residents and Fellows as part of Infectious Diseases Core Curriculum, 2010-present
• Lecturer, “Infectious complications among patients undergoing stem cell transplantation”, Lecture to Residents and Fellows as part of Infectious Diseases Core Curriculum, 2010-present
• Mentor, two Postdoctoral Fellows (Ghady Haidar, Kevin Dee), 2015-2016

Sharon Riddler MD
• Facilitator, Problem-based Learning Sessions, Investigation & Discovery, second-year medical students, University of Pittsburgh School of Medicine, 2015-2016
• Facilitator, Problem-based Learning Session, Intro to Being a Physician, first-year medical students, University of Pittsburgh School of Medicine, 2015-2016
• Facilitator, Problem-based Learning Sessions, Evidence-Based Medicine Fundamentals, first-year medical students, University of Pittsburgh School of Medicine, 2015-2016

Kathleen Sheridan DO
• Small Group leader, Summer reading assignment, Introduction to Being a Physician (MED5124), University of Pittsburgh School of Medicine, 2014-present
• Small Group leader, Down Syndrome, Introduction to Being a Physician (MED5124), University of Pittsburgh School of Medicine, 2014-present
• Small Group leader, Cystic Fibrosis, Introduction to Being a Physician (MED5124), University of Pittsburgh School of Medicine, 2014-present
• Small Group leader, Diabetes, Introduction to Being a Physician (MED5124), University of Pittsburgh School of Medicine, 2014-present
• Small Group leader, Public Health PBL, Introduction to Being a Physician (MED5124), University of Pittsburgh School of Medicine, 2014-present
• Small Group leader, HIV/AIDS, case discussion, Introduction to Being a Physician (MED5124), University of Pittsburgh School of Medicine, 2014-present
• Course Co-Director, Introduction to Being a Physician (MED5124), University of Pittsburgh School of Medicine, 2014-present
• Small Group leader, Public Health PBL, case wrap-up, Introduction to Being a Physician, University of Pittsburgh School of Medicine, 2014-present

Ryan K. Shields PharmD MS
• Facilitator, Clinical Pharmacology (MED5710) Problem-based learning session: Rationale use of antimicrobial agents, medical students, University of Pittsburgh School of Medicine, 2009-present
• Lecturer, Infectious Diseases Lecture Series: Antibiotics 1, residents and fellows, University of Pittsburgh School of Medicine, 2009-present
• Lecturer, Infectious Diseases Lecture Series: Antibiotics 2, residents and fellows, University of Pittsburgh School of Medicine, 2009-present
• Lecturer, “Antibacterials I-III”, Medical Microbiology (MED5116), Medical students, University of Pittsburgh School of Medicine, 2010-present
• Facilitator, Medical Microbiology (MED5116) Problem-based learning session. University of Pittsburgh School of Medicine, 2014-present
• Lecturer: CME: Resistant Pathogens: Gram-Negative Rods Presentation to Critical Care Medicine, UPMC, 2014
• Facilitator, Critical Review Course, Review of medical microbiology course for second-year medical students, University of Pittsburgh School of Medicine, 2014-present
• Facilitator, Microbiology Overview (PHARM 5817) Problem-based learning session. Second- and third-year pharmacy students, University of Pittsburgh School of Pharmacy
• Recipient, Junior Faculty Translational Research Award, University of Pittsburgh, 2016

Fernanda P. Silveira MD MS
• Lecturer, Methods and Logic in Medicine-Pt. 1, MS-1 students, University of Pittsburgh School of Medicine, 2007-present
• Lecturer, “Fungal Infections and Antifungal Drugs”, Medical Microbiology, MS-1 students, University of Pittsburgh School of Medicine, 2008-present
• Lecturer, Selective in Clinical Pharmacology, MS-4 students, University of Pittsburgh School of Medicine, 2013-present
• Director, Problem-based Learning Course, Medical Microbiology, MS-1 students, University of Pittsburgh School of Medicine, 2013-present
• Dean's Applicant Interviewer, University of Pittsburgh School of Medicine, 2014-present

Nicolas Sluis-Cremer PhD
• Lecturer, “Antiviral Drugs”, Molecular Pharmacology (MSMPHL3360), University of Pittsburgh Interdisciplinary Biomedical Graduate Program, 2004-present
• Member, Dissertation Committee for Kevin Melody, University of Pittsburgh Graduate School of Public Health, Department of Infectious Diseases and Microbiology (Mentor: Zandrea Ambrose), University of Pittsburgh, 2013-present
• Dean's Applicant Interviewer, University of Pittsburgh School of Medicine MD/PhD students, 2014-present

Peter J. Veldkamp MD
• Lecturer, “Tuberculosis” Resident Core Curriculum, UPMC Presbyterian, 2004-present
• Lecturer, “Rational Antibiotic Use” Resident Core Curriculum, UPMC Presbyterian and VA Hospital, Pittsburgh, 2004-present
• Lecturer, “Immunodeficiencies”, Monthly lecture for all residents and students, University of Pittsburgh School of Medicine, 2004-present
• Lecturer, “Travel Medicine” Fellow Core Curriculum, UPMC Presbyterian, 2004-present
• Lecturer, “Emerging Infections” Microbiology Curriculum MS-1, University of Pittsburgh School of Medicine, 2005-present
• ID Board Review Fellow Core Curriculum, UPMC Presbyterian, 2005-present
• Lecturer, ‘HIV Cases and Update” Resident teaching series, VA Pittsburgh Health System, 2006-present
• Lecturer, “HIV Cases and Update” Resident Teaching Rounds, UPMC Shadyside, 2006-present
• Lecturer, “HIV Cases and Update” Resident Teaching Rounds, UPMC Presbyterian, 2006-present
• Lecturer, “Travel Medicine” Resident teaching series, UPMC Presbyterian, 2006-present
• Lecturer, “Travel Medicine” Resident teaching series, VA Pittsburgh Health System, 2006-present
• Lecturer, “Travel Medicine” Resident teaching series, UPMC Shadyside, 2006-present
• Lecturer, “Fever work up” Resident teaching series, UPMC Presbyterian, 2006-present
• Lecturer, “Fever work up” Resident teaching series, VA Pittsburgh Health System, 2006-present
• Lecturer, “Fever work up” Resident teaching series, UPMC Shadyside, 2006-present
• Lecturer, “Introduction Infectious Diseases” Microbiology Curriculum MS-1, University of Pittsburgh School of Medicine, 2007-present
• Facilitator, Infectious Disease Conference and Topic Review; Microbiology Curriculum MS-1, University of Pittsburgh School of Medicine, 2007-present
• Lecturer, “Pneumonia”; Pulmonary Curriculum MS-2, University of Pittsburgh School of Medicine, 2007-present
• Lecturer, “Pneumonia in Immunocompromised Hosts” Pulmonary Curriculum MS-2, University of Pittsburgh School of Medicine, 2007-present
• Lecturer, “Urinary Tract Infections”; Renal Curriculum MS-2, University of Pittsburgh School of Medicine, 2007-present
• Lecturer, “Antibiotics II” Pharmacotherapy MS-4, University of Pittsburgh School of Medicine, 2007-present
• Facilitator Methods and Logic in Medicine (MLM-2), Curriculum MS-2, University of Pittsburgh School of Medicine, 2007-present
• Lecturer, “Pre-Travel Advice” ID Fellow Core Curriculum, UPMC Presbyterian, 2007-present
• Lecturer, “Cutaneous manifestations of Infectious Diseases” ID Fellow Core Curriculum, UPMC Presbyterian, 2007-present
• Medical Microbiology Board Review MS-2, University of Pittsburgh School of Medicine, 2008-present
• Course Director Medical Microbiology MS-1, University of Pittsburgh School of Medicine, 2008-present
• Lecturer, “Travel Medicine” Medical Microbiology Curriculum MS-1, University of Pittsburgh School of Medicine, 2008-present
• Lecturer, “Common Things Are Common” Medical Microbiology MS-1, University of Pittsburgh School of Medicine, 2008-present
• Lecturer, “Practical Aspects of Antibiotic Therapy” Medical Microbiology Curriculum MS-1, University of Pittsburgh School of Medicine, 2008-present
• Lecturer, “Nosocomial Infections” Medical Microbiology Curriculum MS-1, University of Pittsburgh School of Medicine, 2008-present
• Lecturer, “Parasitology”, Medical Microbiology Curriculum MS-1, University of Pittsburgh School of Medicine, 2008-present
• Lecturer, “Tuberculosis” Resident Teaching series, UPMC Presbyterian, 2008-present
• Lecturer, “Tuberculosis” Resident Teaching series, VA Pittsburgh Health System, 2008-present
• Lecturer, “Tuberculosis” Resident Teaching series, UPMC Shadyside, 2008-present
• Lecturer, “Encephalitis and Meningitis” Neurology Residency Program, UPMC Presbyterian, 2008-present
• Lecturer, “CNS Infections in HIV patients” Neurology Residency Program, UPMC Presbyterian, 2008-present
• Facilitator, Introduction Being a Physician, MS-I, University of Pittsburgh School of Medicine, 2009-present
• Lecturer, “Travel Medicine” Global Health Medicine Residency Track, UPMC Presbyterian, 2009-present
• Lecturer, “Viral Hemorrhagic Fevers”, ID Fellow Core Curriculum, UPMC Presbyterian, 2009-present
• Lecturer, “Parasitic Infections I”, ID Fellow Core Curriculum, UPMC Presbyterian, 2009-present
• Lecturer, “Parasitic Infections II”, ID Fellow Core Curriculum, UPMC Presbyterian, 2009-present
• Lecturer, “Antibiotics in Resource-limited settings” Tropical Medicine Course, UPMC Presbyterian, 2011-present
• Lecturer, “Meningitis” Tropical Medicine Course, UPMC Presbyterian, 2011-present
• Lecturer, “Cases in Tropical Medicine” Tropical Medicine Course, UPMC Presbyterian, 2011-present
• Lecturer, “Fever in the Returning Traveler” Tropical Medicine Course, UPMC Presbyterian, 2011-present
• Lecturer, “Travel medicine and Prevention” Tropical Medicine Course, UPMC Presbyterian, 2011-present
• Lecturer, “TB or not TB” Global Health Medicine track, UPMC Presbyterian, 2012-present
• Lecturer, “Skin Manifestations of Infectious Diseases” Medicine Residency Program, UPMC Presbyterian, 2012-present
• Lecturer, “Skin Manifestations of Infectious Diseases” Medicine Residency Program, VA Pittsburgh Health System, 2012-present
• Lecturer, “Skin Manifestations of Infectious Diseases” Medicine Residency Program, UPMC Shadyside, 2012-present
• Lecturer, “Travel Medicine Advice” Ambulatory Care Lecture for Medicine Residency, UPMC Presbyterian, 2013-present
• Lecturer, “Fever in the Returning Traveler” Ambulatory Care Lecture for Medicine Residency, UPMC Presbyterian, 2013-present
• Recipient, 2016 ID Fellows Excellence in Teaching Award, University of Pittsburgh Medical Center, 2016

Paschalis Vergidis MD
• Lecturer, “Rational Use of Antibiotics”, Selective in Clinical Pharmacology, Medical Students, University of Pittsburgh School of Medicine, 2014-present
• Facilitator, Problem-based Learning Sessions, Medical Microbiology, first-year medical students, University of Pittsburgh School of Medicine, 2015-2016
• Facilitator, Problem-based Learning Sessions, Evidence-Based Medicine-Applied, first-year medical students, University of Pittsburgh School of Medicine, 2015-2016
• Facilitator, Problem-based Learning Session, Advanced Physical Exam, second-year medical students, University of Pittsburgh School of Medicine, 2015-2016

Emanuel Vergis MD MS MPH
• Fellowship Program Director, Division of Infectious Diseases, UPMC, 1999-present
• Lecturer, Infectious Diseases Inpatient Student Selective, MS-4 students; University of Pittsburgh School of Medicine, 1999-present
• Lecturer, Infectious Diseases, House staff, UPMC, 1999-present
• Preceptor, Infectious Diseases, House staff, UPMC, 1999-present
• Instructor, Focused HIV/AIDS training, Community-based physicians visiting the HIV/AIDS clinic as part of their mini-externship through the Pennsylvania Mid-Atlantic AIDS ETC program, 1999-present
• Lecturer, History of Medicine course, MS-4 students, University of Pittsburgh School of Medicine, 2000-present
• Facilitator, Introduction to Being a Physician, MS-1 students; University of Pittsburgh School of Medicine, 2000-present
• Facilitator, Diversity Awareness Workshop, MS-1 students, University of Pittsburgh School of Medicine, 2000-present
• Lecturer, “Biomedicine: Past Present and Future”, Summer Premedical Academic Enrichment Program, University of Pittsburgh Undergraduate Honors College Program, 2002-present
• Lecturer, “HIV/AIDS”, University of Pittsburgh Summer Premedical Academic Enrichment Program, 2004-present
• Facilitator, Medical Microbiology Problem-based Learning sessions, MS-1 students, University of Pittsburgh School of Medicine, 2005-present
• Preceptor, Combined Ambulatory Medicine Clerkship, MS-2 students, University of Pittsburgh School of Medicine, 2005-present
• Lecturer, “Infectious Diseases”, University of Pittsburgh Medical Explorers Program, High School students, 2005-present
• Clinical Preceptor, Physician Assistant Students, Master of Physician Assistant Studies Program, Chatham University, 2007-present
• Small group facilitator, Diversity Awareness and Acceptance workshop, MS-1 students, University of Pittsburgh School of Medicine, 2014

Mohamed H. Yassin MD PhD
• Lecturer, “Neuro Infectious Diseases”, Internal Medicine residents, UPMC Mercy, 2015-present
• Lecturer, “Infections in Travelers”, Internal Medicine residents, UPMC Mercy, 2015-present
• Lecturer, “Infections in special population–Ventilator-Associated Pneumonia”, Internal Medicine residents, UPMC Mercy, 2015-present
• Lecturer, “Isolation precautions, decolonization and hand hygiene”, Internal Medicine residents, UPMC Mercy, 2015-present
• Facilitator, Simulated Patient session, Medical Interviewing, first-year medical students, University of Pittsburgh School of Medicine, 2015-2016
### Fellowship Program

<table>
<thead>
<tr>
<th>Current Fellow</th>
<th>Medical School</th>
<th>Residency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atri</td>
<td>Nipun</td>
<td>Kasturba Medical College Manipal</td>
</tr>
<tr>
<td>Haidar</td>
<td>Ghady</td>
<td>American University of Beirut Faculty of Medicine</td>
</tr>
<tr>
<td>Hamad</td>
<td>Yasir</td>
<td>University of Juba</td>
</tr>
<tr>
<td>Rao</td>
<td>Mana</td>
<td>Rajarshi Chhatrapati Shahu Maharaj Government Medical College Kolhapur</td>
</tr>
<tr>
<td>Samanta</td>
<td>Palash</td>
<td>Kolkata Medical College &amp; Hospital</td>
</tr>
<tr>
<td>Shively</td>
<td>Nathan</td>
<td>Sidney Kimmel Medical College at Thomas Jefferson University</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Departing Fellow</th>
<th>Current Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atri</td>
<td>Nipun</td>
</tr>
<tr>
<td>Haidar</td>
<td>Ghady</td>
</tr>
<tr>
<td>Hamad</td>
<td>Yasir</td>
</tr>
<tr>
<td>Dee</td>
<td>Kevin</td>
</tr>
</tbody>
</table>

### Fellow Publications


**Fellow Presentations**

Haidar, G. Infectious Diseases Society of America (IDSA) and the National Institute of Allergy and Infectious Diseases (NIAID) Research Careers Meeting, 2016

**Abstracts and Posters**

Haidar, G. Infectious Diseases Society of America (IDSA) and the National Institute of Allergy and Infectious Diseases (NIAID) Research Careers Meeting, 2016

Haidar, G. Interscience Conference of Antimicrobial Agents and Chemotherapy (ICAAC), Oral presentation, “Tolerance (TOL) to ceftazidime/avibactam (C/A), plazomicin (PLZ) and colistin (COL) among Klebsiella pneumoniae carbapenemase-producing K. pneumoniae (KPC-Kp)”, Boston, MA 2016

Haidar, G. Interscience Conference of Antimicrobial Agents and Chemotherapy (ICAAC), Poster presentation, “Association between presence of aminoglycoside modifying enzymes and in vitro activity of gentamicin, tobramycin, amikacin and plazomicin against KPC and ESBL-producing Enterobacter spp”, Boston, MA 2016

Haidar, G. Interscience Conference of Antimicrobial Agents and Chemotherapy (ICAAC), Poster presentation, “Ceftolozane-tazobactam (C/T) is Effective Against Most Multidrug-Resistant (MDR) P. aeruginosa (PA) Infections, but Resistance May Emerge on Therapy”, Boston, MA 2016

Haidar, G. Interscience Conference of Antimicrobial Agents and Chemotherapy (ICAAC), Poster presentation, “Clinical Outcomes of Patients with Carbapenem-Resistant Enterobacteriaceae (CRE) Infections Treated with Ceftazidime-avibactam (C/A)”, Boston, MA, 2016


Rao, M. Regional ACP Poster Presentation Sickle Cell Intrahepatic Cholestasis,

**Honors/Awards**

Haidar, G., First Place Winner, Department of Medicine Annual Fellows’ Teaching Competition, University of Pittsburgh Medical Center, 2016

Haidar, G., Infectious Disease Travel Award, American Society of Microbiology, 2016
CLINICAL CARE

UPMC Health System

The Division's inpatient clinical activity continued to maintain volume in FY 2016 for all six services: General ID, Transplant ID, Surgical ID, HIV-AIDS, Magee-Women's Hospital of UPMC ID Service, and UPMC Mercy Hospital ID Service (summarized in Table 1). Two full-time faculty were recruited to support the General ID Teaching Service and the General ID Telemedicine service. A new HIV/AIDS access provider was also hired in FY 2016.

Overall inpatient volume in FY 2016 remained comparable with the prior year. The number of inpatient consults were up 5%, while subsequent visits were down (3%), resulting in a net total reduction in volume of (1%) in FY 2016 from FY 2015 (Table 1).

The total number of outpatient billable visits/procedures increased 2% in FY 2016 from FY 2015 (Table 2). The number of procedures completed in the ADC decreased (22%) due to the resignation of the medical director. A new medical director has been hired, and ADC services were scheduled to resume in mid-November 2016. By contrast, all ID specialty visits (General ID, HIV/AIDS, and TID) experienced an increase of 12% in new/consult visits in FY 2016 compared with FY 2015. Return visits also experienced an increase, rising 2% from the prior fiscal year. Contributing to this increase was the outpatient parenteral antibiotic therapy (OPAT) program, which saw the number of patients being monitored increase to an average of 90 per month. A slight decrease (2%) in total patient visits in the Pittsburgh AIDS Center for Treatment (PACT) clinic was realized in FY 2016 over FY 2015. This decrease was attributable to a reduction (11%) in the number of new patients in FY 2016 over FY 2015. The UPMC HIV-AIDS program provided primary care to 173 new patients entering into care this year.

FY 2016 Clinical Care Improvements

Telemedicine

In FY 2016, the Division continued to build its telemedicine patient volume by offering both inpatient and outpatient services at multiple UPMC locations and at a non-UPMC site.

- Outpatient ID consults continued at UPMC Northwest and UPMC Bedford under the direction of Rima Abdel-Massih MD and Karin Byers MD as well as infectious diseases specialists Neel Shah MD, J. Alex Viehman MD, Carolyn Fernandes MD, and Kathleen Sheridan DO.
- ID inpatient consult telemedicine service at UPMC Northwest continued to grow in volume with an average of 19 consults per month and an average of 21 follow up visits (See telemedicine graphs below).
- TID telemedicine inpatient consult and outpatient services at UPMC Hamot began in the fall of 2015.
- The ID telemedicine consult service expanded to provide phone consultation at the Penn Highlands Hospital System. In the fall of 2016, this service will include consults based on the review of the electronic medical record and once equipment is in place, it will provide full tele-video ID consults.

**Fecal Microbiota Transplantation**

A new outpatient service began in FY 2015 to treat recurrent clostridium difficile infections with fecal microbiota transplantation (FMT). Dr. Tatiana Bogdanovich is the program’s medical director and is working in collaboration with physicians in Gastroenterology (GI). A directed-donor outpatient FMT program has been in operation through the GI and ID Divisions since December 2014, completing 19 outpatient FMT procedures with 89% of transplants resulting in remission of recurrent Clostridium difficile infection. We are currently in the midst of establishing a volunteer stool bank program. A dedicated freezer has been purchased and installed, protocols developed and bench tested. A donor recruitment and screening campaign is in progress.
Outpatient Parenteral Antibiotic Therapy (OPAT)

The OPAT program began in December 2013. The program is designed to monitor patients discharged from the hospital on intravenous antibiotics to prevent 30-day readmission rates and adverse events. Dr. Kathleen Sheridan is the medical director and, under her direction, the readmission rate for these patients has decreased from 32% to 15%. Patients are monitored by the OPAT team, including an ID-trained pharmacist, a pharmacy coordinator, and two nurse coordinators.

Clinic Locations

<table>
<thead>
<tr>
<th>Facility Name</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center for Care of Infectious Diseases (CCID)</td>
<td>Falk Medical Building, 3601 Fifth Avenue, Suite 700, Pittsburgh, PA 15213, USA</td>
</tr>
<tr>
<td>UPMC Infectious Diseases - Magee-Womens Hospital of UPMC</td>
<td>Magee-Womens Hospital, 300 Halket Street, Tan Unit, Pittsburgh, PA 15213, USA</td>
</tr>
<tr>
<td>UPMC Infectious Diseases - UPMC Mercy</td>
<td>UPMC Mercy, 1515 Loius Street, Suite 236, Pittsburgh, PA 15219, USA</td>
</tr>
</tbody>
</table>
CLINICAL QUALITY IMPROVEMENT INITIATIVES

HIV/AIDS

The Quality Management (QM) Committee oversees quality activities for the HIV-AIDS Program’s primary care clinic (PACT) and the outpatient General Infectious Disease Clinic. The QM Committee is an interdisciplinary team that meets at least 10 times a year, with specific project teams that meet more frequently. The QM Committee is co-chaired by the HIV-AIDS Program’s medical director (Deborah McMahon MD) and program manager (Bethany Blackburn MBA) and guided by a full-time QM coordinator (Linda Despines RN BA). Other ID physicians attend on a scheduled basis. Quality indicators are measured and reviewed on a regular basis at QM Committee meetings and HIV provider meetings. The program reports on key HIV-related indicators to the Health Resources Services Administration’s (HRSA) HIV-AIDS Bureau on a regular basis for benchmarking purposes.

When opportunities for improvement are identified in any aspect of the program, such as medical care, fiscal, or administrative practices, a Continuous Quality Improvement (CQI) initiative is developed, appropriately constituted teams are assembled, often including providers and staff, and a team leader is identified. ID fellows are integrated within the QM Committee structure by working with program leadership and their mentors to develop their own QM projects in the second year of fellowship. The QM Coordinator educates fellows regarding CQI methods. The fellows develop projects, collect data, and present findings at QM Committee meetings.

2016 Quality and Safety Fair Submissions

- Applying New Evidence into Practice: Effective Implementation of a Short Course of Antibiotics for Secondary Peritonitis

  Team: Nipun Atri MD, Scott Gunn MD, Alison Galdys MD, Bonnie Falcione PharmD, Ashleigh Hogue PharmD, and Linda Despines RN

  Problem/ Opportunity: Every year, about 900,000 cases of secondary peritonitis/ intra-abdominal infections (IAI) require hospital admission across the U.S. The cornerstones of management are surgical control, resuscitation, and antibiotics. Lately, evidence supports a short course of antibiotics (< 4 days) compared to the more conventional 7-10 days of therapy and this policy was recently implemented in our Trauma ICU. However, data also suggests that nearly 50% patients do not receive care per latest scientific evidence.

  Steps, Strategies and Implementation Plan:
  - A multidisciplinary team including physicians, pharmacists, and trainees from the Department of Critical Care Medicine and Division of Infectious Diseases was established.
  - Target population in the Trauma ICU was identified using strict inclusion and exclusion criteria. Relevant information was obtained from PowerChart by manual chart review.
  - Baseline adherence rate to new policy of shorter course of antibiotics was found to be 45% (total n = 22)
  - Reasons identified for non-adherence included continuation of antibiotics after transfer out of ICU, initial order for a prolonged course, signs of unresolved sepsis, concomitant infections.
  - A multifaceted intervention focusing on academic detailing of all providers, involving the ICU pharmacist to ensure appropriateness of electronic orders and modifying the ICU rounding checklist was developed and implemented.
  - Post-intervention data collection showed an improvement in adherence rate to new policy from 45% to 87% (n = 15)
Lessons learned and barriers encountered: Frequent relaying of performance measures and continual academic detailing of all providers is necessary for institution of a new policy. Having a multidisciplinary team with a strong focus on communication is pivotal for success. Certain barriers that remained unaddressed in this study include a 60-day default duration of antibiotics in PowerChart and a lack of formal need to recheck orders when patients transfer out of ICU.

Outcomes and opportunities for spread: Adherence rate to Trauma ICU’s new policy of short course of antibiotics for secondary peritonitis was improved from 45% to 87%. Targeted goal of 75% met. This study should lay the groundwork for a smoother and successful implementation of similar policies, at least in smaller units like ICUs and other specialized wards.

- Improving Adherence to Pneumococcal Vaccination Guidelines in Recipients of Lung Transplantation

Team: Yasir Hamad MD, Fernanda Silveira MD MS, Matthew Morrell MD, and Linda Despines RN

Problem/Opportunity: Streptococcus pneumoniae remains a significant cause of morbidity and mortality in the United States, especially in immunocompromised hosts. In 2012, ACIP recommended conjugate pneumococcal vaccine use in immunocompromised adults, but the recommendation has not been fully implemented. We sought to assess and improve the rates of pneumococcal conjugate vaccine administration in lung transplant recipients

Steps, strategies, and implementation plan:
- Analyzed the rates of conjugate pneumococcal vaccine administration in a cohort of lung transplant recipients who were transplanted between 2013-2015
- Identified the barriers of vaccine administration
- Arranged for a meeting with lung transplant care providers and presented them with the CDC vaccination guidelines and their current state of practice, and provided them with copies of the pneumococcal vaccination algorithm. We also discussed the different barriers.
- Analyzed rates of vaccination post-intervention for about 4 weeks

Lessons learned and barriers encountered: Adherence to new guidelines is difficult and needs constant reminders. In addition, the lack of vaccine insurance coverage pre-transplant and the intensity of immunosuppression might limit the window when vaccine can be administered. Good communication is a key in identifying and overcoming obstacles.

Outcomes and opportunities for spread: Rates of conjugate pneumococcal vaccination increased by >20% in the post-intervention period. Introducing alerts in the electronic records software at 1-year interval post-transplant might lead to sustainability of the improvement

- Title: Outreach and Interventions: Reengaging Patients in HIV and Primary Care

Team: Samatha Faulds MS, Lauren Baumann MSW, Bethany Blackburn MBA, Liza Caringi Linda Despines RN, Cameron Mager MSW, and Tamara Robinson BS.

Problem/Opportunity: Pittsburgh AIDS Center for Treatment (PACT) is a federally-funded program that is evaluated on several quality indicators, including patient retention. New systematic processes were implemented to routinize outreach efforts for individuals who have not had a medical appointment in the past eight months.

Steps in Planning and Implementation: The project team designed a methodology to evaluate patients out of care and help them return to care. The intervention comprised three parts: A report was generated from
CAREWare database using the HIV/AIDS Bureau (HAB) Gaps in Medical Care Visits indicator. PACT’s three medical case managers reviewed patient charts to assess if outreach was necessary. The medical case managers initiated phone calls to those needing outreach interventions.

Results and Opportunities for Spread: The percentage of PACT patients meeting the indicator remained stable. The percentage of youth patients (ages 13-24) meeting the indicator improved by 5%. The accuracy of the database-generated reports improved by 48%.

Lessons Learned and Barriers: Tracking patient encounters utilizing CAREWare reduces manual chart review to identify patients lost to care, but data entry must be current. All staff should consistently update contact information in the electronic health record. Database-generated reports should be reviewed before initiation of actions steps.

Transplant Infectious Diseases (TID) and Antibiotic Management Program (AMP)

Over the past year, the TID and the AMP services have engaged in several quality improvement projects:

- Evaluating the efficacy and adverse events of isavuconazole prophylaxis among solid organ transplant recipients. The team recommended a newly FDA approved agent (isavuconazole) for antifungal prophylaxis among organ transplant patients in response to a series of mucormycosis cases that developed between May and September 2015. This intervention was successful, as no further cases of mucormycosis were observed. In addition, it was well-tolerated, with <10% discontinuation rate. The source of our series of mucormycosis is unclear (likely multifactorial), but contaminated linen might have played a role. TID is collaborating with Infection Prevention and Pharmacy to evaluate sterile linen for our transplant recipients.

- Expanding donor pool for organ transplant candidates. TID team collaborated with the lung transplant program to help increase the potential donor pool, specifically regarding Public Health Service (PHS) increased risk donors, the organs from which were being turned down mostly due to discomfort on the part of the surgical teams and the patients. Thorough literature review and informal survey of other programs showed these organs to be relatively safe for use. TID team helped quantify the potential disease transmission risks so that the surgeons could have a frank informed consent process with the transplant candidates ahead of the time. Organs from PHS increased risk donors now being utilized with increased frequency and with good outcome.

- Improving adherence to pneumococcal vaccination guidelines in recipients of lung transplantation. Lung transplant recipients routinely received pneumococcal vaccine. Conjugate vaccine (PCV-13) is more immunogenic than polysaccharide vaccine (PPSV-23). A retrospective chart review of 98 patients demonstrated that only 40% of patients received PCV-13 vaccine. Pocket cards with the pneumococcal vaccination scheme were distributed to the providers, and an alert is being created in Epic at the 1-year mark post-transplant to remind physicians to vaccinate.

- The XDR Pathogen Laboratory within the AMP team continues to positively impact the outcome of patients with carbapenem-resistant Enterobacteriaceae bacteremia (reduction in mortality, length of hospitalization, and hospitalization cost). Over this past year, a new agent, ceftazidime-avibactam, is available for treatment of CRE. The AMP and the XDR pathogen lab have incorporated this agent in the treatment guideline of CRE. Overall, treatment responses are similar to the older regimens, but renal toxicity is decreased.

Infection Control Program

The UPMC Infection Control (IC) program continues to be recognized as one of the nation’s best. The program has focused on bundling efforts to reduce health-care associated infections (HAIs). Examples include multi-drug resistant organism transmission interruption and subsequent HAI reduction of pathogens such as methicillin-resistant Staphylococcus aureus (MRSA) and vancomycin-resistant enterococci (VRE). Other HAI reduction bundles have targeted Clostridium difficile (CD), and device-related HAIs (i.e., central-line associated blood-stream infections.
(CLABs), catheter-associated urinary tract infection (CA-UTIs), and ventilator-associated Pneumonias (VAP’s). HAI rate reductions achieved by type are below:

<table>
<thead>
<tr>
<th>HAI Type</th>
<th>Initiative onset</th>
<th>Base Rate</th>
<th>2015 Rate</th>
<th>% HAI Rate Change in 2015 as compared to rate at onset of initiative</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRSA</td>
<td>2001</td>
<td>.88</td>
<td>.38</td>
<td>57%</td>
</tr>
<tr>
<td>VRE</td>
<td>2000</td>
<td>.57</td>
<td>.28</td>
<td>51%</td>
</tr>
<tr>
<td>CD</td>
<td>2000</td>
<td>11.7</td>
<td>7.8</td>
<td>33%</td>
</tr>
<tr>
<td>ICU CLABs</td>
<td>2002</td>
<td>5.2</td>
<td>1.01</td>
<td>81%</td>
</tr>
<tr>
<td>ICU CA UTI</td>
<td>2002</td>
<td>7.4</td>
<td>1.6</td>
<td>78%</td>
</tr>
<tr>
<td>ICU VAE</td>
<td>2014</td>
<td>NA*</td>
<td>14.30</td>
<td></td>
</tr>
</tbody>
</table>

Additional Initiatives

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Initiative onset</th>
<th>2015 Rate</th>
<th>% HAI Rate Change in 2015 as compared to rate at onset of initiative</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDR ACAT</td>
<td>2010</td>
<td>1.82</td>
<td>0.23</td>
</tr>
<tr>
<td>Hand Hygiene</td>
<td>2008</td>
<td>53%</td>
<td>100%</td>
</tr>
</tbody>
</table>

*No baseline data is available for VAP as the definition change occurred in 2014

UPMC’s IC program uses the highest scientific standards, insightful methodology and appropriate statistical analysis to monitor and maintain reductions in HAIs. The program has not only been successful at reducing UPMC’s HAI rates, it has influenced practices at many other health organizations across the country.

**MRSA/VRE**

![Multi-Drug Resistant HAI Rates 2000-2015 Per 1,000 patient days](image-url)
**CDI**

**HA CDI Traditional and Expanded**
**Per 10,000 patient days**

<table>
<thead>
<tr>
<th>Year</th>
<th>Cdiff</th>
<th>CD Expanded</th>
<th>2015 Overcapture</th>
<th>Severe C Diff</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2001</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2002</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2003</td>
<td>6</td>
<td>6</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2004</td>
<td>8</td>
<td>8</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2005</td>
<td>10</td>
<td>10</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2006</td>
<td>12</td>
<td>12</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2007</td>
<td>14</td>
<td>14</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**ICU CLABS, CAUTIs, VAPs, VAEs**

**Breakdown of ICU Device Related Infection Types by Years**

- **CLABS**
  - 2002: 5.2
  - 2003: 2.2
  - 2004: 1.0
  - 2005: 2.9
  - 2006: 4.6
  - 2007: 2.9
  - 2008: 1.6
  - 2009: 0.7
  - 2010: 0.6
  - 2011: 0.7
  - 2012: 1.3
  - 2013: 1.7
  - 2014: 1.3
  - 2015: 5.3

- **VAPs**
  - 2002: 8.3
  - 2003: 4.9
  - 2004: 3.8
  - 2005: 3.8
  - 2006: 2.4
  - 2007: 1.8
  - 2008: 1.3
  - 2009: 2.3
  - 2010: 2.4
  - 2011: 2.4
  - 2012: 2.6
  - 2013: 1.3
  - 2014: 1.8
  - 2015: 1.0

- **CAUTIs**
  - 2002: 11.5
  - 2003: 8.3
  - 2004: 5.5
  - 2005: 3.8
  - 2006: 4.6
  - 2007: 3.8
  - 2008: 2.4
  - 2009: 2.9
  - 2010: 2.8
  - 2011: 2.8
  - 2012: 3.2
  - 2013: 3.1
  - 2014: 1.8
  - 2015: 1.7

- **VAEs**
  - 2002: 5.3
  - 2003: 5.3
  - 2004: 5.3
  - 2005: 5.3
  - 2006: 5.3
  - 2007: 5.3
  - 2008: 5.3
  - 2009: 5.3
  - 2010: 5.3
  - 2011: 5.3
  - 2012: 5.3
  - 2013: 5.3
  - 2014: 5.3
  - 2015: 5.3

**Department of Medicine**

[http://www.dom.pitt.edu/id](http://www.dom.pitt.edu/id)
MDR ACAT

In the chart, the MDR ACAT Rate of New Patient Isolates is shown from January 2011 to October 2015. The rate ranges from 0.6 to 1.28 per 1000 patient days, with a peak in January 2012. The lowest rate is in October 2015.

HAND HYGIENE

The chart illustrates Hand Hygiene Compliance from January 2010 to October 2015. The compliance rate starts at 78% in January 2010, shows a significant increase after the start of the campaign in August, reaching 100% by December 2010.

VA Pittsburgh Healthcare System (VAPHS)

ID services provided by our faculty at the VA Pittsburgh Healthcare System (VAPHS), University Drive, include general and solid organ transplant in-patient consultations (>200 consults per month), and outpatient General ID and HIV-AIDS clinics (>30 patients per week). The volume of inpatient consults has doubled in the past two years. General ID consultations are also provided at the H. J. Heinz Progressive Care Center (~12 consults per month). In addition to consultations on cases requested by specific services, the ID service provides real-time surveillance and guidance on all positive blood cultures and cases of pneumonia. The ID Division administers a home IV antibiotic program that services veterans in a four-state catchment area, and an Antimicrobial Stewardship Program. The Infection Prevention Program is administered by the ID Division and is directed by Dr. Brooke Decker.

Brooke Decker MD, and her Infection Prevention team have cut urinary catheter days at Heinz Community Living Center in half and significantly decreased the number of catheter-associated urinary tract infections. The Infection
Prevention team has also formalized mycobacterium culture reporting and surveillance, and established and implemented comprehensive water management and pathogen remediation protocols. For these efforts, Dr. Decker was selected for the VA Secretary Award, which was presented during a ceremony at VAPHS by Robert McDonald, U.S. Secretary of Veterans Affairs. Patti Harris MSN, Infection Preventionist, received a VA Cameos of Caring Award in the Quality and Safety Category. Dr. Decker was awarded a VA Competitive Pilot Project Fund grant for the project, A Predictive Model for Detecting Legionella within a Hospital Water System. She was an invited speaker at American Thoracic Society International Meeting and the Society for Hospital Epidemiology of America’s (SHEA) annual meeting. She and her Infection Prevention team received three posters of distinction awards at the 2016 SHEA meeting.
FACULTY

Facility in Core Divisions
Fiscal Year 2014-2016

<table>
<thead>
<tr>
<th>Division</th>
<th>FY 2003 (Base Year)</th>
<th>FY 2014</th>
<th>FY 2015</th>
<th>FY 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infectious Diseases</td>
<td>18</td>
<td>37</td>
<td>35</td>
<td>37</td>
</tr>
</tbody>
</table>

Note: Includes University of Pittsburgh full-time faculty and volunteer faculty who have a UP Asociation and excludes research associates, adjunct faculty and emeritus faculty.

Current Infectious Diseases Faculty

**Full-Time Faculty**

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Degree(s)</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdel Massih</td>
<td>Rima</td>
<td>MD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Ambrose</td>
<td>Zandrea</td>
<td>PhD</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Badrane</td>
<td>Hassan</td>
<td>PhD</td>
<td>Research Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Bhimraj</td>
<td>Adeel</td>
<td>A. MD</td>
<td>Adjunct Associate Professor of Medicine</td>
</tr>
<tr>
<td>Byers</td>
<td>Karin</td>
<td>E. MD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Cheng</td>
<td>Shao</td>
<td>J. MD, PhD</td>
<td>Research Associate Professor of Medicine</td>
</tr>
<tr>
<td>Clancy</td>
<td>Cornelius</td>
<td>J. MD</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Cranston</td>
<td>Ross</td>
<td>D. MD</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Doi</td>
<td>Yohei</td>
<td>MD, PhD</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Halvas</td>
<td>Elias</td>
<td>K. PhD</td>
<td>Research Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Harrison</td>
<td>Lee</td>
<td>H. MD</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Ho</td>
<td>Ken</td>
<td>S. MD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Kwak</td>
<td>Eun</td>
<td>J. MD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Macatangay</td>
<td>Bernard</td>
<td>J. MD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Marsh</td>
<td>Jane</td>
<td>W. PhD</td>
<td>Research Associate Professor of Medicine</td>
</tr>
<tr>
<td>McMahon</td>
<td>Deborah</td>
<td>D. MD</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Mellors</td>
<td>John</td>
<td>W. MD</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Muto</td>
<td>Carlene</td>
<td>MD</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Nguyen</td>
<td>Minh Hong</td>
<td>T. MD</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Parikh</td>
<td>Urvi</td>
<td>M. PhD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Riddler</td>
<td>Sharon</td>
<td>A. MD</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Shields</td>
<td>Ryan</td>
<td>K. PharmD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Shutt</td>
<td>Kathleen</td>
<td>A. MS</td>
<td>Research Associate</td>
</tr>
<tr>
<td>Silveira</td>
<td>Fernanda</td>
<td>P. MD</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Singh</td>
<td>Nina</td>
<td>MD</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Sluis-Cremer</td>
<td>Nicolas</td>
<td>P. PhD</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Veldkamp</td>
<td>Peter</td>
<td>J. MD</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Vergidis</td>
<td>Paschalis</td>
<td>MD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Vergis</td>
<td>Emanuel</td>
<td>N. MD</td>
<td>Associate Professor of Medicine</td>
</tr>
</tbody>
</table>

**Affiliated Faculty with UPP Appointments**

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Degree(s)</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bogdanovich</td>
<td>Tatiana</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Curry</td>
<td>Scott</td>
<td>R. MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
</tbody>
</table>
### Infectious Diseases

**FY 2015-2016**

**Department of Medicine**

[http://www.dom.pitt.edu/id](http://www.dom.pitt.edu/id)

<table>
<thead>
<tr>
<th>Name</th>
<th>Degree</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fernandes</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Galdys</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>McBeth</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Shah</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Sheridan</td>
<td>DO</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Trevejo-Nunez</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Viehman</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Yassin</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
</tbody>
</table>

**Affiliated Faculty without UPP Appointments**

<table>
<thead>
<tr>
<th>Name</th>
<th>Degree</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hong</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>McEllistrem</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Pontzer</td>
<td>MD</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Rao</td>
<td>MD</td>
<td>Clinical Professor of Medicine</td>
</tr>
<tr>
<td>Weber</td>
<td>MD</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Weinbaum</td>
<td>MD</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
</tbody>
</table>

**New Faculty Hires**

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>MI</th>
<th>Degree</th>
<th>Primary Title</th>
<th>Division</th>
<th>Previous Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>McBeth</td>
<td>Sarah</td>
<td>K</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td>Infectious Diseases</td>
<td>Infectious Diseases Fellow, University of Pittsburgh</td>
</tr>
<tr>
<td>Shah</td>
<td>Neel</td>
<td>B</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td>Infectious Diseases</td>
<td>Orthopedic Infectious Disease Fellow, Mayo, MN</td>
</tr>
<tr>
<td>Viehman</td>
<td>John</td>
<td></td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td>Infectious Diseases</td>
<td>Infectious Diseases Fellow, University of Pittsburgh</td>
</tr>
</tbody>
</table>
# POST DOCS

## Current Post Docs in FY 2015-2016

<table>
<thead>
<tr>
<th>Employee Last Name</th>
<th>Employee First Name</th>
<th>Degree Code</th>
<th>Current Title</th>
<th>Summary of activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cillo</td>
<td>Anthony</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Cillo works in Dr. Mellors’s lab evaluating relationships between the total inducible and infectious virus in both total and resting CD4 cell populations from patients on suppressive antiretroviral therapy.</td>
</tr>
<tr>
<td>Hong</td>
<td>Feiyu</td>
<td>MD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Hong worked in Dr. Mellors’s lab on the decay of persistent HIV reservoirs on antiretroviral therapy. His resignation was effective Jan. 8, 2016.</td>
</tr>
<tr>
<td>Mahumane</td>
<td>Arlete Miloque</td>
<td>MD</td>
<td>PhD Student (Epidemiology)</td>
<td>Dr. Mahumane is a physician studying for a PhD degree, with support from Dr. Harrison’s AIDS training grant.</td>
</tr>
</tbody>
</table>

## Terminating Post Docs in FY 2015-2016

<table>
<thead>
<tr>
<th>Employee Last Name</th>
<th>Employee First Name</th>
<th>Degree Code</th>
<th>Current Title</th>
<th>Summary of activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Garcia</td>
<td>Christian</td>
<td>MD</td>
<td>PhD Student (Epidemiology)</td>
<td>Dr. Garcia worked with Dr. Harrison on studies to assess the impact of pneumococcal polysaccharide in elderly Chilean adults.</td>
</tr>
<tr>
<td>Hong</td>
<td>Feiyu</td>
<td>MD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Hong worked in Dr. Mellors’s Lab on the decay of persistent HIV reservoirs on antiretroviral therapy. His resignation was effective Jan. 8, 2016.</td>
</tr>
<tr>
<td>Khowlah</td>
<td>Al-Mehiny</td>
<td>MD</td>
<td>PhD Student (Epidemiology)</td>
<td>Dr. Khowlah is working with Dr. Harrison on her thesis about knowledge, attitudes, and practices related to human papilloma virus vaccine in Saudi students.</td>
</tr>
</tbody>
</table>
PUBLICATIONS

High Impact Publications


Since the 2000 Hajj pilgrimage, there has been the global emergence of a hypervirulent strain of Neisseria meningitidis, the major cause of epidemic meningitis worldwide. In this study, the authors studied the bacterial genetic events that were associated with the emergence of this strain. In additional to a major capsular switching event, the Hajj clone acquired novel gene sequences within genes involved in nitrogen metabolism and evasion of human immune response. These results shed light on mechanisms of meningococcal strain emergence.


Bacterial pneumonia and tracheobronchitis are common diseases following lung transplantation that are often difficult to differentiate based on clinical findings, culture results, and current diagnostic criteria. Using Bayesian regression analysis, we identified bacterial microbiome and host cytokine signatures within 49 bronchoalveolar lavage samples that distinguished between pneumonia, tracheobronchitis, and bacterial colonization among lung transplant recipients. Compared to colonization, pneumonia and tracheobronchitis were characterized by low and high bacterial diversity, respectively, and prominent multifunctional cytokine responses that differed from each other. The dissimilar microbiomes and cytokine responses underlying bacterial pneumonia and tracheobronchitis following lung transplantation suggest that the diseases result from different pathogenic processes, and that disease-specific signatures may be useful as diagnostic tools.


Therapeutic vaccination with autologous dendritic cells loaded with autologous HIV-1-infected apoptotic cells was safe and well tolerated. The vaccine resulted in a modest decrease in plasma HIV-1 RNA set point compared to pre-antiretroviral therapy (ART) levels, but did not prevent viral rebound following treatment interruption. Interestingly, the vaccine also led to an increase in plasma HIV-1 RNA in 4/10 participants despite continuous ART. Further analysis through single genome sequencing of the virus before and after vaccine revealed increases in hypermutants in gag and pol, suggesting the increase in HIV-1 RNA post-vaccine was due to cytolysis of HIV-1 infected cells.


Fosfomycin is an antibiotic that is highly active against Escherichia coli. In this work, we identified FosA6 conferring high-level fosfomycin resistance in a local E. coli clinical strain. We showed that FosA6 encodes a functional glutathione-S-transferase. Interestingly, FosA6 is identical to FosA encoded on some Klebsiella pneumoniae strains. K. pneumoniae as a species is non-susceptible to fosfomycin. The work showed that the
fosA6 gene can move from *K. pneumoniae* to *E. coli* to make it resistant to fosfomycin, and more importantly, suggested that inhibition of FosA may be a viable approach in potentiating fosfomycin against *K. pneumoniae*.


Determining the anatomic compartments that contribute to plasma HIV is critical to understanding the sources of residual viremia during combination antiretroviral therapy (ART). Using a macaque model for HIV/AIDS, 1800 single-genome sequences of viral DNA and viral RNA populations in the plasma and tissues in the presence or absence of ART suppression were analyzed to identify possible sources of persistent viremia and to investigate the effect of ART on viral replication in tissues. The results showed the following: the virus reservoir during ART is broadly disseminated throughout the tissues; infected cells persisting and/or proliferating during ART only rarely express viral products and, when they do, the genomes are often defective; and the genetics of residual viremia during ART reflect viral RNA expression in the gastrointestinal tract and lymphoid tissues as well as the blood.

**Peer-Reviewed Publications: 2014, 2015, 2016**


Boddie C, Watson M, Ackerman G, Gronvall GK. Assessing the bioweapons threat. Science. 2015;349(6250);792-793.


Gronvall GK, Rozo M. Synopsis of Biological Safety and Security Arrangements. UPMC Center for Health Security. 2015.


Department of Medicine  http://www.dom.pitt.edu/id


Hong FF, Mellors JW. Impact of antiretroviral therapy on HIV-1 persistence: The case for early initiation. AIDS Rev. 2015 May 6;17(2).


Inglesby T, Relman D. How likely is it that biological agents will be used deliberately to cause widespread harm? EMBO Rep. 2015;e201541674.


PULMONARY, ALLERGY AND CRITICAL CARE MEDICINE

RAMA K. MALLAMPALLI MD
Division Chief and Professor, Pulmonary, Allergy and Critical Care Medicine

UPMC is widely recognized as a perennial leader in the treatment of respiratory disease. This year, U.S. News & World Report ranked the UPMC Health Network at #7 in the country for the treatment of respiratory diseases (improved from #11 in 2015). Our subspecialty programs in asthma, cystic fibrosis, pulmonary fibrosis, sleep medicine, and pulmonary hypertension are regional and national leaders in patient care and research. For patients with advanced lung disease, our collaboration with transplant surgery provides opportunities for improvements in quality of life and survival offered by life-saving lung transplantation. The UPMC program has performed more than 1,900 lung and combined heart-lung transplants since the program’s inception in 1982, and we have averaged more than 90 per year for the last nine years. In addition, the program continues to lead the field in transplantation by offering transplants to high-risk patients, as up to 30% of our patients have been declined for transplant at other transplant centers prior to being successfully transplanted at UPMC.

We experienced turnover in our physicians during the past fiscal year, and we are actively recruiting. Last year, the Division had a successful recruitment year. Below are some of the notable additions to our faculty:

- Sanjay R. Patel MD – from Harvard University, joined as Professor of Medicine
- Jared Chiarchiaro MD – former Pulmonary Fellow, joined as Assistant Professor of Medicine
- Faraaz Shah MD – T32 Fellow, joined as Clinical Instructor, anticipated NIH K08 awardee
- Carl Koch MD – T32 Fellow, joined as Clinical Instructor
- Anna Zemke MD, PhD- former Pulmonary Fellow, joined as Clinical Instructor
- Yuan Liu PhD – Research Assistant Professor
- Jun Ho Jang PhD – Research Instructor
- Barbara Methe PhD – from the J. Craig Venter Institute, joined as Visiting Professor of Medicine
- Seyed Nouraie PhD –from Howard University, joined as Associate Professor of Medicine
- Toru Nyunoya MD – from University of New Mexico, joined as Associate Professor of Medicine

Our Division had 107 academic faculty members during FY 2016. Our plan for FY17 is to expand our clinical operation into perimeter sites (e.g. via telemedicine), establish a pulmonary consultation service at Mercy Hospital, establish an Interventional Bronchoscopy program, and strengthen our sleep operation with targeted recruitment of both experts in sleep medicine but also sleep-related physician scientists. We will also recruit additional pulmonary clinicians as well as critical care providers with expertise in the care of immunocompromised patients (e.g. after bone marrow transplantation). In the teaching program, we will continue to recruit clinician-educators, augment administrative leadership within our fellowship program, and establish a platform for a pulmonary interventional bronchoscopy training program. We are poised to select fellow applicants with an interest in scholarship in education and will also partner with Infectious Diseases to recruit trainees for a joint ID-CCM fellowship. Our primary research-intensive recruitment targets individuals with expertise in sleep research and T-lymphocyte biology in the area of immune tolerance.
RESEARCH

The Division of Pulmonary, Allergy, and Critical Care Medicine is focused around the development of nine core programs of research excellence. The Division has shown a sustained record of peer-reviewed extramural support during the recent seven-year interval, as indicated in the Pulmonary Research Expenditures graph.

Key grants awarded in the Division during the past year follow.

- Ian Barbash received an NIH F32 grant entitled “The Impact of Variation in the ICU Bed Supply on Utilization of Intensive Care Services”, with annual direct costs of $79,097, from May 1, 2016, through April 30, 2018.
- Beibei (Bill) Chen PhD was awarded an NIH UH2 grant entitled “A New Genus of Ubiquitin-Based Anti-Inflammatories for COPD”, with annual direct costs of $50,000, from July 1, 2015, through June 30, 2016.
- Timothy Corcoran PhD was awarded a Department of Defense Grant entitled “Respiratory Ciliary Dysfunction and Pulmonary Risks in Congenital Heart Disease Patients”, with annual direct costs of $6,200, from September 30, 2015, through September 29, 2018.
- Daniel Doberer PhD was awarded a Breathe Pennsylvania grant entitled “Asthma and Autoimmune Disease” with annual direct costs of $10,000, from June 15, 2015, through June 15, 2016.
- Jessica Field MD was awarded an NIH R01 grant entitled “Autoimmunity and Emphysema and Risk of Osteoporosis in Smokers”, with annual direct costs of $250,000, from April 1, 2016, through March 31, 2021.
- Jessica Field MD was also awarded a VA Merit Review Award entitled “Emphysema and Inflammatory Biomarkers and Risk of Osteoporosis in Men with COPD”, with direct costs of $637,100, from July 1, 2015, through June 30, 2020.
- Kevin Gibson MD was awarded a subcontract on a PCORI grant, entitled “a PaTH Toward a Learning Health System for the Mid-Atlantic Region”, with annual direct costs of $13,850, from September 13, 2015, through September 12, 2018.
- Matthew Ging, MD was awarded an NIH R56 grant entitled “Adiposity and Airway Inflammation in HIV-Associated Airway Disease”, with annual direct costs of $446,365, from September 2, 2015, through August 31, 2016.
- Alyssa Gregory, PhD was awarded a Flight Attendants Medical Research Institute (FAMRI) grant entitled “Neutrophil Regulation of Insulin/IG-Mediated Cellular Senescence in COPD”, with annual direct costs of $100,000, from July 1, 2015, through June 30, 2017.
- Seung Hye Han MD was awarded an American Heart Association (AHA) grant entitled “Regulation of NALP3 Inflammasome Activation by Endotoxin”, with annual direct costs of $50,000, from July 1, 2015, through June 30, 2017.
• Seung Hye Han MD was awarded a Breathe Pennsylvania grant entitled “Regulation of NALP3 Inflammasome Activation by Cigarette Smoking”, with annual direct costs of $10,000, from June 15, 2015 through June 15, 2016.

• Daniel Kass MD received an NIH R01 grant entitled “Twist1 Subphenotypes and Pulmonary Fibrosis” with annual direct costs of $250,000, from April 1, 2015 through March 30, 2020.

• Daniel Kass MD received a subcontract on an NIH R01 grant entitled “Rituximab Therapy in Patients with IPF”, with annual direct costs of $95,318, from November 1, 2015 through October 31, 2016.

• Carl Koch MD received an NIH F32 grant entitled “The Oral Microbiome and Enterosalivary Circulation of Nitric Oxide in HIV, with annual direct costs of $66,566, from July 1, 2015 through June 30, 2017.

• Janet Lee MD received an NIH R21 grant entitled “Enhancing Neutrophil Responses to Counter MDR Gram Negative Bacterial Pneumonia” with annual direct costs of $144,671, from June 1, 2015, through May 31, 2017.

• Janet Lee MD received a Cystic Fibrosis Foundation award entitled “Regulation of Neutrophil Inflammation in Cystic Fibrosis”, with annual direct costs of $80,000, from July 1, 2015, through June 30, 2019.

• Yuan Liu PhD received an American Heart Association grant entitled “Regulation of Mitochondrial Function in Lung Injury”, with annual direct costs of $70,000, from January 1, 2016, through December 31, 2019.

• Rama Mallampalli MD received an NIH R01 grant entitled “F box-Inducted Acute Lung Injury and Parkin”, with annual direct costs of $287,855, from April 1, 2016, through March 31, 2020.

• Rama Mallampalli MD received a Harrington Discovery Institute grant entitled “Novel F Box Immunomodulator for Lung allograft Rejection”, with annual direct costs of $50,000, from January 1, 2016, through December 31, 2016.

• Rama Mallampalli MD received a subcontract on an NIH R01 grant entitled “Signaling Mechanisms by Which Mitochondria Regulates Fibrosis in the Lung”, with annual direct costs of $15,756, from April 1, 2016, through March 31, 2020.

• Matthew Morrell MD received a subaccount from Washington University on a grant entitled “Extracorporeal Photopheresis for the Management of Progressive Bronchiolitis Obliterans Syndrome in Medicare-Eligible Recipients of Lung Allografts”, with annual direct costs of $21,500, from June 1, 2015, through June 1, 2019.

• Alison Morris MD received a supplement to an NIH R01 grant entitled “Longitudinal Evaluation of HIV-Associated Lung Disease Phenotypes,” with annual direct costs of $46,000, from July 1, 2015, through June 30, 2018.

• Alison Morris MD received an NIH UM1 grant entitled “Anti-Influenza Hyperimmune Intravenous Immunoglobin Clinical Outcome Study”, with annual direct costs of $294,714, from September 1, 2015, through May 31, 2017.

• Alison Morris MD received a subcontract to an NIH UM1 grant entitled “University of Pittsburgh Multicenter AIDS Cohort Study (MACS), with annual direct costs of $96,000, from May 1, 2016, through April 30, 2017.

• Toru Nyunoya MD received a Veterans Affairs Pittsburgh Healthcare System grant entitled “Role of DNA Repair in COPD”, with annual direct costs of $142,564, from May 1, 2016, through April 30, 2017.

• Sanjay R. Patel MD received an NIH K24 grant entitled “Mentored Patient Oriented Research in Sleep and Metabolic Disease”, with annual direct costs of $135,581, from January 1, 2016, through May 31, 2020.

• Sanjay R. Patel MD received a subcontract from Beth Israel Deaconess on an NIH R01 grant entitled “Obstructive Sleep Apnea Increases Cardiovascular Risk in Type 2 Diabetes”, with annual direct costs of $135,581, from January 1, 2016, through June 30, 2017.

Joseph Pilewski MD received a grant from the Cystic Fibrosis Foundation entitled “Strategic Plan to Improve Lung Transplant Outcomes”, with annual direct costs of $45,972, from January 1, 2016, through December 31, 2016.

Joseph Pilewski MD received a P30 NIH grant entitled “Basic and Translational Studies of Cystic Fibrosis”, in which he is the Director of two research cores, with annual direct costs of $182,298, from July 1, 2015, through May 31, 2018.

Joseph Pilewski MD received a subcontract on an NIH R21 grant entitled “Generation of Novel Human Monoclonals for Lung Disease”, with annual direct costs of $18,139, from April 1, 2016, through March 31, 2018.

Joseph Pilewski MD received a subcontract on a grant from the Cystic Fibrosis Foundation entitled “Transcriptomic Responses to Kalydeco – Role in Predicting Outcomes,” with annual direct costs of $11,657, from January 1, 2016, through December 31, 2017.

Joseph Pilewski MD received a subcontract on a grant from the Cystic Fibrosis Foundation entitled “Genome-Wide Analyses of Epigenetic Landscape of CF Airways”, with annual direct costs of $11,683, from April 1, 2016, through March 31, 2018.

Anuradha Ray PhD, and Sally Wenzel MD were awarded (as Co-PIs) an NIH P01 grant entitled “Immune Airway-Epithelial Interactions in Steroid-Refractory Severe Asthma” with annual direct costs of $1,046,759, from June 1, 2015, through May 31, 2020.

Anuradha Ray PhD received an NIH R01 grant entitled “Mechanisms of Antigen-Induced Tolerance in the Lung” with annual direct costs of $266,135, from March 1, 2016, through February 29, 2021.

Anuradha Ray PhD received a subcontract on an NIH R01 grant entitled “T-Cells and P. Carinii Pneumonia” with annual direct costs of $5,449, from February 1, 2016, through January 31, 2017.

Prabir Ray PhD received an NIH R01 grant entitled “Lung Epithelial-Immune Interactions in Respiratory Virus Infection”, with annual direct costs of $295,750, from August 15, 2015, through May 31, 2019.

Prabir Ray PhD received an NIH R01 grant entitled “Understanding Protective Immunoregulatory Mechanisms in the Infant Lung” with annual direct costs of $27,273 from November 23, 2015, through November 22, 2016.

Michael G. Risbano MD received a United Therapeutics Corp. grant entitled “Uric Acid Levels After Phosphodiesterase-5 Inhibition Predict Improved Outcome in Pulmonary Arterial Hypertension”, with annual direct costs of $27,273 from November 23, 2015, through November 22, 2016.

Mauricio Rojas MD received an Athersys Inc/NIAID R42 grant entitled “Cell Therapy for the Treatment of Acute Respiratory Distress Syndrome” with annual direct costs of $213,130 from October 6, 2015, through August 31, 2016.

Mauricio Rojas MD received an NIH R01 grant entitled “Aging of Mesenchymal Stem Cells Missing Link in IPF” with annual direct costs of $326,420, from September 1, 2015, through June 30, 2019.

Mauricio Rojas MD received a Department of Defense grant entitled “Combination of Extracorporeal Life Support and Mesenchymal Stem Cell Therapy for Treatment of ARDS in Combat Casualties and Evacuation of Service Members with ARDS”, with direct costs of $2,912,539, from October 1, 2015, through September 30, 2017.

Mauricio Rojas MD received a subcontract on an NIH R56 grant entitled “The Anti-Aging Role of Klotho in Skeletal Muscle Regeneration”, with annual direct costs of $8,922 from May 1, 2016, through April 30, 2017.

Jason Rose MD received an NIH F32 grant entitled “Carbon Monoxide Inhibition of Mitochondrial Function and Efficacy of a Novel Antidotal Therapeutic for Carbon Monoxide Poisoning”, with annual direct costs of $78,010, from April 1, 2016, through June 30, 2017.

Frank Sciurba MD received an NIH U01 grant entitled “Network Management Core (NEMO) for the Pulmonary Trials Cooperative (PTC)”, with annual direct costs of $114,510, from August 1, 2015, through July 31, 2020.

Frank Sciurba MD received a subcontract from National Jewish Health on a grant entitled “COPD Gene Lung Cancer Database”, with annual direct costs of $2,000, from February 11, 2016, through December 31, 2017.
Frank Sciurba MD received an NIH R21 grant entitled “Biomarkers Predictive of Lung Function in Decline in Physiologically Normal Smokers”, with annual direct costs of $125,000, from September 1, 2015, through June 30, 2017.

Frank Sciurba MD received a subcontract from the University of Alabama/DOD on a grant entitled “Beta-Blockers for the Prevention of Acute Exacerbations of COPD”, with annual direct costs of $81,761, from October 1, 2015, through September 30, 2020.

Frank Sciurba MD received a subcontract on an NIH R01 grant entitled “CT Assessment of Lung Fissures: Anatomy and Correlated Function”, with annual direct costs of $20,541, from January 15, 2016, through December 31, 2019.

Faraaz Ali Shah MD received an NIH F32 grant entitled “Effect of Route of Nutritional Support on Metabolic and Inflammatory Outcomes in Sepsis”, with annual direct costs of $66,566, from September 1, 2015, through August 31, 2016.

Stevan Tofovic PhD received a grant from Merck entitled “Evaluate Whether Suprarenal Abdominal Aorta Constriction (SRAAC) in ZSF-1 Rats Can Serve as an Animal Model for Heart Failure with Preserved Ejection Fraction (HFpEF)” with annual direct costs of $95,350, from December 3, 2015, through December 2, 2016.

Sally Wenzel MD received a subcontract from Carnegie Mellon University/NIGMS for an R01 grant entitled “toward PanOmic and Personalized Association Study of Complex Diseases – A New Statistical and Computational Paradigm for Personalized Medicine” with annual direct costs of $37,209, from August 1, 2015, through June 30, 2019.

David Wilson MD received a subcontract from Harvard University/NHLBI on an R01 grant entitled “Clinical and Molecular Profiles for Smokers with Subclinical Interstitial Lung Disease” with annual direct costs of $28,798, from September 17, 2015, through June 30, 2018.

Anna Zemke MD received a grant from the Cystic Fibrosis Foundation entitled “Nitrite Dispersal of Pseudomonas Aeruginosa Biotic Biofilms” with annual direct costs of $125,000 from March 1, 2016, through February 28, 2019.

Jing Zhao PhD received an NIH R01 grant entitled "Regulation of Histone Acetyltransferase Stability in Sepsis" with annual direct costs of $197,500, from July 1, 2015, through June 30, 2020.

Jing Zhao PhD received an American Lung Association grant entitled “Role of Ubiquitin-Proteasome System in Histone Acetylation in Acute Lung Injury”, with annual direct costs of $40,000, from July 1, 2015, through June 30, 2017.

Yutong Zhao PhD received a subaward on an NIH R01 entitled “HIPPO Signaling in Pulmonary Arterial Hypertension” with annual direct costs of $8,899, from February 1, 2016, through January 31, 2020.

Chunbin Zou PhD received an NIH R01 grant entitled “Epigenetic Regulation in Acute Lung Injury” with annual direct costs of $250,000, from July 1, 2015, through June 30, 2019.

New Research Initiatives and Ongoing and Planned Collaborations

New initiatives include the following:

Timothy Corcoran PhD and Janet Lee MD were appointed Co-Directors of the Pulmonary Translational Research Core (PTRC).

Michael Myerburg MD and Joseph Pilewski MD have fostered a research collaboration with Stella Lee MD from Otorhinolaryngology to begin research efforts on sinus disease in Cystic Fibrosis, with a focus on the microbiome.

Acute Lung Injury Center of Excellence

The Acute Lung Injury/Adult Respiratory Distress Syndrome Research Program focuses on the investigation of fundamental mechanisms in lung injury and repair. The program utilizes advanced tools in molecular, biochemical, and...
clinical investigation to work toward basic and translational discoveries that can lead to novel treatments for patients with severe acute lung injury. Program faculty have fostered extensive collaborations with the Departments of Surgery, Anesthesiology, Pathology, and Environmental Health. The primary program faculty include: Rama Mallampalli MD, Janet S. Lee MD, Bryan McVerry MD, Yutong Zhao MD PhD, Prabir Ray PhD, Bill Chen PhD, and Michael Donahoe MD. The program is partially supported by eleven R01 grants from the NHLBI. In addition, the Center is supported by an NHLBI P01 and Cadet 2 awards, and a VA Merit Award, under the direction of Dr. Mallampalli.

**Adult Cystic Fibrosis Program**

The goal of the Adult Cystic Fibrosis and Host Defense Research Program is to provide improved treatments and, ultimately, a cure for Cystic Fibrosis. The program is directed by Joseph Pilewski MD, and among the involved PACCM faculty are Michael Myerburg MD and Timothy Corcoran PhD. In addition to directing the Adult Cystic Fibrosis Center, Dr. Pilewski serves as the core director for the cell and tissue culture core and clinical studies component of the Cystic Fibrosis Research Center. These cores provide procedures for identifying functional outcomes, monitored in terms of lung function, ion transport, or gene expression for investigators involved with CF research across the University of Pittsburgh. The multi-departmental Cystic Fibrosis Research Center, led by Drs. Ray Frizzell PhD, Jay Kolls MD, Simon Watkins PhD and Pilewski successfully competed for renewal of NIH P30 and CF Foundation Research Development Program grants to support infrastructure and pilot projects, including one from Janet Lee MD for studies of neutrophil function in CF.

**Asthma Institute**

The Asthma and Allergic Inflammation Program investigates the fundamental biologic mechanisms in asthma and allergic inflammation. Sally Wenzel MD spearheads both clinical and bench research projects in the area of asthma and allergic inflammatory disorders of the lung. Additional faculty in this program includes Fernando Holguin MD, Andrej Petrov MD, Prabir Ray PhD, Anuradha Ray PhD, and Xiuxia Zhou PhD. The Institute is supported by a program project (P01) grant from the NIH.

The program combines advanced principles in basic bench investigation with a comprehensive translational research program. Clinical research efforts focus on better definition of severe asthma phenotypes to better understand disease pathogenesis, and to improve treatment of severe asthma patients. Bench research projects focus on the molecular mechanisms of inflammation in allergy and asthma and mechanisms that induce tolerance to antigens, as well as approaches to severe asthma using cellular biology and genetics tools.

**COPD and Emphysema Research Center**

The COPD and Emphysema Research Center (ERC) investigates fundamental biologic concepts in advanced chronic obstructive lung disease, particularly emphysema. The program uses advanced tools in molecular, biochemical, physiologic, and radiographic assessment for research investigations. The primary program faculty are Frank Sciurba is the program’s Director and the center’s primary faculty include Janet Lee MD, Michael Donahoe MD, Jessica Field MD, Divay Chandra MD, Toru Nyunoya MD, Alyssa Gregory PhD., and Steven D. Shapiro MD. The ERC has been a national leader in the field of lung reduction surgery, pulmonary rehabilitation, and transtracheal oxygen therapy. It relies on successful basic science collaborations with the Departments of clinical pharmacology and biochemistry, and with other local and international collaborators. The ERC maintains an active registry for patient participation in clinical research trials of novel treatments for patients with advanced COPD. The Emphysema program is a member of the NHLBI Lung Tissue Research Consortium and the COPD Clinical Research Network, and is additionally supported by the NIH Network Management Core (NEMO) for the Pulmonary Trials Cooperative (PTC) (U01) grant.
**Pulmonary Transplantation and Advanced Lung Disease Program**

The Pulmonary Transplantation and Advanced Lung Disease Program is dedicated to developing a greater understanding of the basic biology of lung transplantation. This multidisciplinary program incorporates surgical, immunologic, and medical expertise in the care and research of patients with end-stage lung disease who undergo lung transplantation. The growth of this program has been remarkable, with more than 1,000 lung or heart-lung transplants over the last 10 years, and more than 650 patients being actively followed for post-lung transplant care in the outpatient comprehensive lung program. Translational research programs focus on clinical trials of novel immunosuppressive regimens, including carfilzomib (PI: John McDyer MD), quality of life following lung transplantation, and treatment strategies for high-risk recipient populations. Over the last year, a longitudinal biorepository of clinical data and patient samples was created to facilitate discovery of novel biomarkers of allograft dysfunction and tolerance. The program faculty, under the leadership of Matthew Morrell MD, includes John McDyer MD, Christopher Ensor PharmD, Bruce Johnson MD, Timothy Corcoran PhD, Maria Crespo MD, FCCP, Joseph Pilewski MD, Silpa Kilaru MD, Patty George MD, Elizabeth Lendermon MD, and Matthew Pipeling MD.

**Simmons Center for Interstitial Lung Disease**

The Dorothy P. and Richard P. Simmons Center for Interstitial Lung Disease establishes the University as a premier center for the investigation and clinical care of patients with idiopathic pulmonary fibrosis. The Simmons Center is a comprehensive multidisciplinary program incorporating research scientists, clinicians, nurse specialists, and rehabilitation medicine staff. Division faculty involved with the center include Kevin Gibson MD, Daniel Kass MD (Director), Mauricio Rojas MD, Jared Chiarchiaro MD, Kathleen Lindell, Luis Ortiz MD, and Kristen Veraldi MD PhD. Current research efforts include basic investigations focused on the mechanisms of the lung fibrosis, injury and repair, genomics and proteomics of lung fibrosis, and the role of genetics in determining the fibrotic phenotype. The Center's research programs are structured to facilitate the rapid translation from bench investigation to clinical medicine, with scientists maintaining an active role in patient sample collection, studies of biomarkers of disease progression, and the development of new therapeutic drug targets. Center faculty are funded by the NIH, and enjoy a strong collaborative relationship with investigators in the Departments of Pathology and Surgery, and with multiple investigators around the world.

**UPMC Sleep Medicine Center**

The Sleep Medicine Center is a multidisciplinary program incorporating respiratory medicine, psychiatry, otolaryngology, and bariatric surgery specialists. Center research focuses on the pathophysiology of sleep-disordered breathing in patients with advanced cardiomyopathy, as well as clinical research in the medical therapy of obstructive sleep apnea and hypoventilation syndromes. The Center utilizes advanced tools in molecular, physiologic, and clinical investigation. Extensive collaborative interactions exist with the Heart and Vascular Institute, the Department of Otolaryngology, and the Graduate School of Public Health. The Sleep Medicine Center is under the direction of Sanjay R. Patel MD, and program faculty includes Dr. Patel, Patrick Strollo MD, Christopher O'Donnell PhD, Charles Atwood MD, Rachel Givelber MD, David Kristo MD, and Euhan (John) Lee MD.

**Pulmonary Vascular Disease Center**

This program was developed under the leadership of Mike Mathier MD and Mark Gladwin MD. They aim to develop a high-volume referral clinic, right-heart catheterization diagnostic program, and multidisciplinary research programs. In addition to human translational and clinical research studies, the Center performs basic studies of right-ventricular dysfunction, including the genetic modifiers influencing the severity of pulmonary hypertension and right-heart failure; nitric oxide and reactive oxygen species signaling; and right-ventricular-pulmonary artery coupling. A translational vascular unit as part of the CTSI is now being led by Marc Simon MD MS. The Pulmonary Vascular Disease Center is the home to a NIH P01 grant titled “Vascular Subphenotypes of Lung Disease” awarded to Dr. Gladwin. A broad base of basic, small, and large animal and human clinical trials will be conducted to examine the significance, cause, and
treatment of pulmonary vascular disease as a unique phenotype in patients with COPD, ILD, and HIV. The Pulmonary Vascular Disease Center has extensive links to the Vascular Medicine Institute (VMI) also under the direction of Dr. Gladwin. Jeffrey Isenberg MD MPH and Elena Goncharova PhD, both of the VMI, focus their research on vascular disease.

**Pulmonary Hypertension**

The Pulmonary Hypertension Research Center was developed to provide clinical research and basic research that advances clinical care and treatment of patients with cardiopulmonary disease. Cardiopulmonary disease affects a range of patient populations with a variety of disease states: idiopathic pulmonary arterial hypertension, COPD, interstitial lung disease, heart failure/diastolic dysfunction, valvular disease, hemoglobinopathies, connective tissue disease, liver disease, and HIV infection, to name a few.

Led by Mark Gladwin MD and Michael A. Mathier MD, the Pulmonary Hypertension Research Center is one of the largest programs in the country, offering patients full access to state-of-the-art diagnostics, therapeutics, and opportunities to participate in clinical research.

Our cardiologists and pulmonologists are investigating several promising new therapies for patients with PAH. These therapies include the oral prostanoid treprostinil, the selective endothelin antagonists, and combinations of available agents. Under the leadership of Dennis M. McNamara MD (Cardiology faculty), researchers are also investigating the relationship between genetic variations and clinical outcomes in patients with cardiopulmonary disease. Understanding this relationship may help individualize treatments for these patients in the future. The program is also researching new technologies to evaluate right heart function and new strategies to identify risk factors that portend a poor outcome in patients with pulmonary hypertension.

Pulmonary arterial hypertension (PAH) is a complex disease characterized by inappropriate cellular hypertrophy and proliferation of the pulmonary vasculature that results in increased vascular resistance, elevated pulmonary artery pressure, and eventually right-heart dysfunction. It is often unrecognized in its early stages because of its nonspecific presenting symptoms, which include dyspnea, fatigue, and chest discomfort. The disease may be idiopathic, familial, or associated with underlying rheumatologic, cardiac, hepatic, or pulmonary disease. While the diagnostic evaluation of affected patients is complex, numerous proven therapies are now available.

**Pulmonary Translational Research Core (PTRC)**

The mission of the PTRC is to foster excellence in research from the lab bench to patient bedside to clinical practice and to advance patient care and health outcomes in the field of pulmonary medicine. The PTRC aims to provide resources, services, operations, and training to support and promote the planning and implementation of translational and clinical research in the Division of Pulmonary, Allergy, and Critical Care Medicine (PACCM).

PTRC offers a broad range of consultations and key regulatory support at all stages throughout the research project life cycle, from grant writing and developing a protocol, through recruiting participants to closing the research project and analyzing the results.
Faculty Research Interests

Charles Atwood MD FCCP FAASM
Dr. Atwood's research interests center on sleep apnea management with a focus on novel ways to diagnose and provide long-term care for patients with sleep apnea. In particular, he is investigating the role of home sleep apnea testing as a way of diagnosing the condition. Working closely with Dr. Pat Strollo, Atwood has also worked with the pacemaker industry (Guidant/Boston Scientific) on studies examining various aspects of pacemaker technology as a possible diagnostic or treatment device in sleep apnea. He is currently collaborating with Dr. John Hotchkiss and others in the Department of Critical Care Medicine on studies looking at new methods of identifying physiological patterns in sleep apnea that may allow for better clinical phenotyping of sleep apnea patients.

In addition, Dr. Atwood is interested in researching long-term oxygen therapy and clinical trials in COPD. He collaborates with the Division’s Emphysema Research Center (ERC) on clinical trials and through the ERC, he is part of the NIH's COPD clinical research network.

Dr. Atwood works with Dr. Roxann Gross of the UPMC Eye and Ear Institute in studying various aspects of the regulation of swallowing and breathing. This work has led to a better understanding of some basic physiological mechanisms with possible practical relevance that may lead to better therapy for dysphagia.

He has also begun a program at the VA Pittsburgh Healthcare System for the rapid evaluation of lung nodules that are referred to the Pulmonary Division.

Sharon Camhi MD
Dr. Camhi is involved in Divisional research at the VA Pittsburgh Healthcare System (VAPHS). She is the Site PI on a VA Cooperative Studies Program trial investigating the use of steroids in veterans with severe pneumonia. She is also a co-investigator on several other studies within the Pulmonary Division at the VAPHS. On a regional level, Dr. Camhi is leading the initiative to bring Telemedicine Pulmonary services to remote VA facilities lacking Pulmonary physicians. Nationally, she is involved in a project to enhance palliative care in critical care units in Veterans Hospitals across the country.

Divay Chandra MD MSc
Dr. Chandra’s research focuses on three aspects of COPD:

- How does a disease of the lung (COPD) produce varied systemic comorbidities, such as atherosclerosis and kidney dysfunction? This research uses a translational approach, and focuses on the study of inflammatory and autoimmunity processes as novel mechanisms for systemic vascular injury in COPD.
- Are there as yet undefined systemic manifestations of COPD and how can these be identified? This work includes the first description of a novel emphysema kidney injury phenotype.
- Finally, how can phenomic data on patients with COPD be analyzed and interpreted using advanced computational methods to understand disease heterogeneity?

Beibei Chen PhD
Dr. Chen's primary research interest involves the study of the molecular mechanisms that control inflammation and cell proliferation via protein ubiquitination. He has identified and characterized more than 10 novel ubiquitin E3 ligases over the last four years. These works have been published in top-tier journals, including Nature Immunology, Nature Medicine, Cell Reports, Science Translational Medicine, and the Journal of Experimental Medicine. Dr. Chen's second area of research focus is small molecule drug design. Over the past two years, he has submitted 10 provisional patents related to novel anti-inflammatory/cancer compounds. In addition, he has successfully designed and synthesized a novel series of first-in-class small molecule FBXO3 protein inhibitors. One of his lead compounds, BC-1261, has passed preclinical PK/toxicity studies and was discussed at an FDA pre-IND meeting in May 2015. This compound is
on track to be tested in a Phase I trial, beginning in August 2017. Recently, he has also designed a novel series of potent, selective PDE4, HECTD2, StamBP, Fbxo7, Fbxo48, FIEL1, DCN1 inhibitors that exhibit excellent activities in vivo. His long-term goal is to develop a new class of therapeutics that combat cancer and inflammatory diseases by focusing on novel mechanisms.

**Jared Chiarchiaro MD**

Dr. Chiarchiaro's current research interests center on medical education and curriculum development. For example, he has developed a new, active teaching format for the pulmonary and critical care fellows' core curriculum and is evaluating its implementation and efficacy.

He is also heavily involved in clinical research through his pulmonary clinic at the Simmons Center for Interstitial Lung Disease. Dr. Chiarchiaro is a co-investigator in several clinical trials evaluating novel therapeutics for idiopathic pulmonary fibrosis. He is also working to create and analyze the largest known case-series of hard metal pneumoconiosis.

In addition to his role in the Simmons Center clinical trials, Dr. Chiarchiaro is co-investigator for the PETAL network's ROSE trial, which is evaluating early neuromuscular blockade for acute respiratory distress syndrome.

He remains active in several quality improvement initiatives within the hospital. For example, he helped create and evaluate the protocol for prone positioning in the Medical Intensive Care Unit.

**Timothy Corcoran PhD**

Dr. Corcoran's research interests include aerosol drug delivery and aerosol-based nuclear imaging of the lung. He has been extensively involved in the development of inhaled medications for lung transplant recipients and cystic fibrosis patients—and the development of special techniques for improving inhaled drug delivery, such as the use of low density gases and surfactants to improve drug distribution in the lungs. Dr. Corcoran had developed imaging techniques for quantifying pulmonary physiology including measurements of mucociliary clearance and liquid absorption in the airways. These techniques have been tested in a series of clinical studies involving adult and pediatric patients and will be used to screen new medications for treating lung diseases such as cystic fibrosis. Dr. Corcoran is currently the Principal Investigator of two NIH RO1 grants. He has previously directed research funded by the U.S. Army and the Cystic Fibrosis Foundation.

**Merritt Fajt MD**

Dr. Fajt's research over the last several years has focused on the pathobiologic mechanisms of severe asthma and the role of mast cells. While mast cells have been reported in the epithelium, both in the GI tract and in the airway, very little is known regarding the epithelial (and even luminal) mast cells, their phenotype and function in asthma and severe asthma. Dr. Fajt's research involves determining the location, phenotype, and function of airway mast cells in severe asthma, as compared with milder asthma and normal control subjects. She conducts studies from a range of sources, including endobronchial biopsy, epithelial cells, bronchoalveolar lavage fluid, sputum, and blood samples. Preliminary data strongly suggest that mast cells in severe asthma, rather than being absent, are actually of an altered functional phenotype and directed toward a luminal location. Her studies will continue to focus on the differences in mast cell phenotypes and their modification by epithelial or luminal factors as it relates to the inflammatory and repair processes of asthma. An understanding of the pathobiology of mast cells in severe asthma could lead to new clinical biomarkers and therapeutic targets. Dr. Fajt has presented her data at several national conferences. She was a second author on a paper recently accepted to the American Journal of Critical Care Medicine regarding the role of mast cells in severe asthma.

**Jessica Bon Field MD MS**

Dr. Bon's academic and research interests focus on the investigation of musculoskeletal comorbidities in chronic obstructive pulmonary disease. Her research has concentrated on the role that inflammation and autoimmunity play in
COPD-related bone loss. She has shown that radiographic emphysema independently predicts low bone mineral density in smokers and has identified novel autoimmune responses in smokers that are linked to emphysema-related bone loss.

Meghan Fitzpatrick MD
Dr. Fitzpatrick’s research focuses on the relationships between chronic HIV infection and HIV co-infections with COPD, which develops in an accelerated fashion among persons chronically infected with HIV.

Kevin Gibson MD
Dr. Gibson’s research focuses on clinical pathogenesis interstitial lung diseases, including idiopathic pulmonary fibrosis, Sarcoidosis, autoimmune lung disease, and occupational lung disease. Dr. Gibson conducts studies that include early- and late-phase clinical trials of novel therapeutics in interstitial lung disease, the discovery of biomarkers of disease activity and progression, and clinical translational studies of disease pathogenesis. He has published a number of translational studies: one involving his research to identify unique biomarkers of disease activity in idiopathic pulmonary fibrosis and other interstitial lung diseases; among his other published works are studies of novel interventions in acute IPF exacerbations, as well as studies of gene expression profiling in IPF lungs. Dr. Gibson has discovered a number of peripheral blood biomarkers that have been useful predicting disease progression in idiopathic pulmonary fibrosis. He has participated in multinational studies of the genetics of IPF and Sarcoidosis.

Rachel Givelber MD
Dr. Givelber's academic focus is in clinical education, specifically at the medical student, resident and fellow levels. She teaches critical appraisal of medical literatures as well as techniques to apply research studies to the care of individual patients. Dr. Givelber is currently an Assistant Professor of Medicine; serves as the associate director of the pulmonary fellowship; and is the director of the Evidence-Based Residency Curriculum for the internal medicine residency program.

Mark Gladwin MD
Since 1998, Dr. Gladwin's research activities have led to numerous scientific discoveries, which have resulted in more than 210 published peer-reviewed manuscripts. These investigations form the backbone of Dr. Gladwin's current work in the Department of Medicine:

- The discovery that the nitrite anion is a circulating storage pool for NO bioactivity (Gladwin, et al. PNAS 2000) that regulates hypoxic vasodilation (Cosby Nature Medicine 2003) and the cellular resilience to low oxygen and ischemia (Duranski JCI 2005).

Elena Goncharova PhD
Dr. Goncharova's research interests have focused on the molecular and cellular mechanisms regulating metabolism, proliferation, and the motility and survival of smooth muscle cells as it relates to the pathogenesis of pulmonary arterial hypertension (PAH) and pulmonary lymphangiopleiomyomatosis (LAM). Her current work specifically centers on the roles of mammalian target of rapamycin (mTOR) and HIPPO signaling networks as a master-regulators of VSM remodeling in PAH. Dr. Goncharova’s lab uses human-derived tissues and cells, genetically modified mice and rodent animal models of PH to dissect new signaling events driving PAH pathogenesis, and to identify and test new molecular targets. Dr. Goncharova’s lab also runs VMI Cell Processing Core (isolates, characterizes and biobanks pulmonary
vascular cells from subjects with PAH and donor lungs) and Animal Hypoxic Core (provides the platform and technical support for hypoxia-based modeling of PH in rodents).

**Alyssa Gregory PhD**

Our group studies the contribution of neutrophils to the development to cigarette smoke-induced diseases (COPD/emphysema, lung cancer), with an emphasis on understanding the complex roles of neutrophil-derived serine proteinases. Our group was the first to describe the ability of a secreted proteinase, neutrophil elastase (NE), to gain entry into lung structural cells and to cleave an array of intracellular substrates. This finding unveils an additional level of regulation beyond the classical matrix-degrading functions of this and other proteinases. Additionally, our group studies the changes in innate immunity that occur with advanced age, which may play causative or contributory roles in pulmonary diseases which exhibit late-life onset. We are actively investigating stress granulopoiesis and changes to the bone marrow compartment which occur during chronic lung diseases and also with advanced age.

**Shikha Gupta MD**

Dr. Gupta's research interests include the prevalence of pulmonary veno-occlusive disease in patients with pulmonary hypertension associated with scleroderma; the association of PFT variables and pulmonary hypertension in patients with COPD; efforts to identify predictors for out-of-proportion pulmonary hypertension in COPD; and the relationship between pulmonary hypertension and coronary artery disease.

**Jeffrey Isenberg MD MPH**

Dr. Isenberg's research has centered on the need to enhance tissue blood flow, perfusion, and wound healing. These interests stem from his background as a reconstructive microsurgeon. As a clinician, his work focused on the development and application of novel autologous composite tissue units for the closure of complex wounds. In addition to anatomical research in tissue vascular anatomy, he studied the ability of complex tissue reconstructive units to withstand stress injuries. This enabled him to improve the clinical range of these surgical approaches. However, the limitations of clinical results achievable via surgical interventions alone motivated him to focus purely on research. He now studies the molecular aspect of blood flow and perfusion, and has recently discovered a novel inhibitory pathway that blocks physiologic nitric oxide (NO) signaling.

**Jun Ho Jang PhD**

Dr. Jang's research is focused on the discovery of small molecules and biomarker that regulate Chronic Obstructive Pulmonary Disease (COPD) via protein ubiquitination. Working within Dr. Toru Nyunoya and Dr. Mallampalli's laboratory for COPD, his work involves: 1) Analysis of the ubiquitin proteasome system (UPS) that mediates selective protein degradation caused by Cigarette Smoke Extract (CSE) in human epithelial cell. 2) Biomarker discovery of Chronic Obstructive Pulmonary Disease (COPD) from human lung samples. 3) Isolation and purification of small molecules, such as antioxidants and anti-inflammatory properties, to suppress/inhibit senescence and cell death due to damage to DNA that can arise from external sources, such as exposure to cigarette smoking or environmental toxins using LC-MS/MS.

**Constance Jennings MD**

Dr. Jennings has participated in clinical research and collaborated with basic research throughout her career. Her current interests include patient outcomes in COPD and emphysema.

She also has a longstanding interest in the medical humanities related to the impact of the quality of caregiver relationships and the medical environment on the illness experience.

**Bruce Johnson MD**

Dr. Johnson is primarily a lung transplant clinician with clinical research interests in lung transplant therapies. He participated in the first randomized controlled trial in lung transplant. It was the first and only randomized, placebo-
controlled trial ever shown to improve survival after lung transplant and was the first to report a case series of recurrence of pre-transplant disease in the allograft.

**Tamir Kanias PhD**
Dr. Kanias focuses his research on several facets of red blood cell physiology and pathology, including the red blood cell storage lesion; the molecular and genetic determinates of hemolysis; donor genetic variability including gender in stored red blood cells; the role of sex hormones, particularly androgens, in modulating hemolysis during storage and after transfusion; characterization of canonical transient receptor potential (TRPC) cation channels and voltage-gated calcium channels in human and mouse red cells; development of new therapeutics for red cell storage and transfusion using steroid- and non-steroid TRP blockers.

**Maria Kapetanaki PhD**
Dr. Kapetanaki is a molecular biologist with a long-standing interest in the regulation of gene expression in human diseases affecting normal lung function. Her research focuses on identifying the molecular pathways underlying pulmonary hypertension, which is a common complication in the sickle cell patient population. Her current projects include the study of the regulatory mechanism of heme-induced Placenta Growth Factor (PIGF) and the role of heme-induced genes in hematopoietic cells. More specifically, she investigates the role of oxidant response pathways, especially the Nrf-2 transcription factor and its upstream regulators. She employs cell culture and murine models in her research, applying such techniques as gene silencing, gene editing, and drug treatment to describe the steps of heme activation.

**Daniel Kass MD**
The focus of Dr. Kass's lab is Idiopathic Pulmonary Fibrosis (IPF), a progressive, scarring of the alveolar parenchyma that ultimately leads to respiratory failure and death. Pathologically, this disease is characterized by the unremitting accumulation of fibroblasts. These are the cells responsible for the deposition of extracellular matrix in pulmonary fibrosis.

Dr. Kass's research has focused on two critical areas of fibroblast biology. The first is the differentiation of fibroblasts to the highly contractile and synthetic myofibroblast. This fundamental feature of fibrosis leads to the deposition of matrix and the contraction of the gas exchange units in the lung that characterizes IPF. Dr. Kass and his lab have discovered that the receptor for the hormone relaxin, RXFP1, is decreased in IPF. The loss of this receptor has several implications for patients: first, IPF patients with the lowest expression of RXFP1 have the most compromised pulmonary function. Second, these patients may be relatively insensitive to the anti-fibrotic effects of relaxin-based therapies. Relaxin has been shown to reverse many of the pathologic events associated with myofibroblast differentiation.

Dr. Kass has also focused on the role of fibroblasts as regulators of the degree and extent of inflammation in the lung. To this end, he has focused on the role of twist1, a transcription factor with enriched expression in IPF. Deranged expression of twist1, a well-known inhibitor of NF-kappaB signaling, can lead to dramatic changes in the local inflammatory infiltrate in animal models of pulmonary fibrosis.

**Carl Koch MD**
Since beginning his postdoctoral fellowship at the University of Pittsburgh, Dr. Koch has continued his research on the role of nitric oxide and its metabolites in pulmonary and vascular physiology. He is also interested in the role of the microbiome in nitric oxide metabolism as it pertains to the development of pulmonary hypertension and cardiovascular disease.

**David Kristo MD**
Dr. Kristo previously first authored work on the Silent Upper Airways Resistance Syndrome (SUARS) which employed routine use of esophageal manometry, a gold standard but labor intensive and seldom-used diagnostic technique. The
SUARS work stands as one of the most comprehensive assessments of incidence of SUARS within a patient population, and it helps explain sleepiness in the absence of obvious sleep disorders.

Dr. Kristo was also the first author of a paper validating the use of telemmedicine to transport sleep-study data by Internet, thus expanding the access to sleep studies in remote areas with interpretation by trained physicians elsewhere. Internet transfer of sleep studies is now a routine part of daily sleep medicine clinical work within the field.

Dr. Kristo also co-authored efforts to assess home monitoring of patients on continuous positive airway pressure (CPAP), which proved that patients could be successfully followed on CPAP from remote locations with a home monitoring system. This finding is even relevant in metropolitan areas for those with transportation problems and difficulty in accessing the medical system in person.

Committee work on identifying best patient care approaches helps to define the sleep medicine field in areas such as peri-operative care in sleep apneics, use of non-prescription remedies in sleep disorders, obstructive sleep apnea care, and the prevalence of concomitant psychiatric disease in sleep clinic patients.

Yen-Chun Lai PhD
Dr. Lai's research has been focused primarily on exploring new pathogenesis and developing alternative therapies to effectively treat cardiopulmonary diseases, with particular emphasis on metabolic syndrome, pulmonary hypertension, and heart failure with preserved ejection fraction (PH-HFpEF). Most recently, many of her efforts have been focused on unraveling the role of SIRT3 in skeletal muscle and its mediation of endocrine signaling pathways in PH-HFpEF.

Janet Lee MD
Dr. Lee’s laboratory studies the biology of critical illness and host determinants of lung injury. The research focuses upon the innate arm of immunity, specifically examining how phagocytes such as macrophages and neutrophils recognize and respond to exogenous pathogen associated molecular patterns (PAMPs) or endogenous alarmins. The lab’s researchers are interested in probing host-pathogen interactions to examine mechanisms of host protection following pathogen-triggered injury from products of extracellular gram negative pathogens, such as Pseudomonas aeruginosa and Klebsiella pneumoniae. They are also interested in the factors that shape repair and resolution following injury, specifically factors derived from hematopoietic cells such as platelets and red blood cells that can influence the course of inflammation. Dr. Lee’s lab uses a repertoire of relevant murine models of injury, molecular genetic approaches, in vitro biochemical assays, and human bio-samples to examine innate host defenses of the lung.

Elizabeth Lendermon MD
Dr. Lendermon's research focuses on understanding T cell mechanisms of lung transplant rejection and acceptance. She is particularly interested in understanding the importance of T cell T-bet expression in tolerance, defining the role of IL-17 in chronic rejection, and in better elucidating the effects of immunosuppression on cellular and molecular pathways that characterize the immune response to the transplanted lung.

Kathleen Lindell PhD RN
Dr. Lindell's research is directed at improving the quality of life for patients with advanced lung disease, specifically Idiopathic Pulmonary Fibrosis (IPF), and their family caregivers. The research focus developed as a result of Dr. Lindell’s experience working to improve support available to patients with IPF and their caregivers, ensuring that patients and caregivers have the most recent disease information available, and advocating to increase awareness of this disease. Her research has provided seminal findings regarding the need for earlier provision of palliative care and earlier initiation of discussions regarding EOL planning for patients with IPF.

Yuan Liu PhD
The ubiquitin proteasome system (UPS) is a complex, hierarchical, and regulated cellular system that dominates selective protein degradation to modulate the abundance and activity of cell proteins. The majority of proteins are
controlled by the UPS through the ATP-dependent enzymatic cascade, including the ubiquitin activating enzyme (E1), the ubiquitin conjugating enzyme (E2), and the ubiquitin ligase (E3). Dr. Liu has a long-standing research interest in UPS, especially ubiquitin ligase E3s. Her earlier work during PhD study and postdoctoral training focused on the regulatory mechanisms of protein ubiquitylation and degradation. At ALI center, Dr. Liu's study has expanded to ubiquitylation in mitochondrial biology, mainly in acute lung injury model. Her very recent discovery includes ubiquitin E3 ligase subunits Fbxl18 and Fbxl7 target anti-apoptotic protein survivin to modulate mitochondrial homeostasis. The Fbxl18-Fbxl7-survivin axis provides a unique regulatory pathway that ubiquitin E3 modulates mitochondrial function and apoptosis, serving as therapeutic target for cancer treatment. The other field of Dr. Liu's research interest is small molecule drug development in lung disease. Collaborating with Drs. Rama Mallampalli and Bill Chen, she has developed a series of small molecule inhibitors targeting ubiquitin E3 ligases, aiming to protect mitochondrial function during acute lung inflammation and injury. Currently, they have demonstrated the potent mitochondria-protective activity of these compounds in cellular level and rodent ALI model, leading to one provisional patent on inhibitor of ubiquitin E3 ligase neddylation and another provisional patent application for F-box protein inhibitor.

Rama Mallampalli MD
Dr. Mallampalli’s research focuses on pulmonary molecular and cell biology as it relates to acute lung injury (ALI) and the mechanisms of sepsis. He is an internationally recognized investigator in the area of lipid metabolism and ubiquitin-mediated proteolysis as it relates to inflammation and injury. His research program discovered a unique model for the molecular behavior of ubiquitin E3 ligase subunits that control inflammation. Dr. Mallampalli’s laboratory designed, synthesized, and tested the first-in-class genus of ubiquitin E3 ligase (F box) inhibitors that modulate proteolysis, thereby inhibiting inflammation in preclinical models of ALI and multi-organ failure. He currently leads an NIH Program Project grant in ALI and a Centers for Advanced Diagnostics and Experimental Therapeutics in Lung Diseases Stage II (CADETII) award to develop drug therapies for inflammatory lung illness.

John McDyer MD
Cytomegalovirus infection remains the most common infection in lung transplant recipients (LTRs) and a major cause of morbidity and mortality. Dr McDyer's research investigates T-bet, the T cell transcriptional factor, to determine if it is necessary for protective CMV-specific immunity during acute and chronic CMV infection. To test this, he uses both the murine CMV (MCMV) pulmonary infection model and the LTR cohort to study the role of T-bet in pulmonary and systemic CMV host defense and the development of protective T cell memory.

Bryan McVerry MD
Dr. McVerry's research focuses on basic and translational investigation of the biological mechanisms underlying the development and consequences of sepsis and acute lung injury. His research efforts are designed to span the continuum from the bench to the bedside.

Barbara Methé PhD
Dr. Methé’s research focuses on microbial ecology and the relationship of the microbiome to lung disease.

Ana Mora MD
Dr. Mora’s research is focused on understanding the pathogenesis of Idiopathic Pulmonary Fibrosis (IPF), a fatal and progressive lung disease, characterized by progressive scarring of the lung. IPF prevalence dramatically increases with age, and aging is a known risk factor for IPF. However, there is limited understanding in the mechanisms involved in the increased vulnerability of the aging lung to develop lung fibrosis. Mitochondrial dysfunction is a hallmark of aging, but the role of mitochondria in IPF pathobiology is unknown. Dr. Mora’s lab recently discovered that AECII from human IPF lung have an accumulation of dysmorphic and dysfunctional mitochondria associated with very low expression of the crucial protective protein involved in mitochondrial homeostasis, PTEN-induced putative kinase 1 (PINK1). Low expression of PINK1 leads to increased susceptibility to cell apoptosis and fibrosis. However, no information is available about how PINK1 expression is regulated and how the loss of PINK1 activates pro-fibrotic responses. Dr. Mora's research brings forth a unique molecular model linking mitochondrial dysfunction and fibrosis, setting the stage for
identifying novel links of aging and fibrosis and therapeutic targets for IPF. The lab’s studies use a combination of novel animal models with genetically altered mice and human subjects. Dr. Mora’s published findings identified alterations in mitochondrial homeostasis in the aging type alveolar epithelial cell (AECII) as a critical component of the pathogenesis of IPF. Currently, her research is extending to other diseases characterized by abnormal tissue repair and exaggerated remodeling, including pulmonary hypertension (PH).

Matthew Morrell MD
Dr. Morrell’s research interests include novel therapies for bronchiolitis obliterans syndrome (BOS), which is the primary limiting factor in survival following lung transplantation. He has published the largest series to date of lung transplant patients treated with extracorporeal photopheresis (ECP) for BOS. His research is currently being utilized to gain approval from the U.S. Food and Drug Administration to use ECP for BOS therapy. Dr. Morrell’s other research interests include acute antibody mediated rejection, a controversial phenomena in lung transplantation, the effectiveness of therapies in reducing the incidence of primary graft dysfunction in the immediate post-operative period, and the improvement of allograft dysfunction.

Alison Morris MD MS
Dr. Morris’ research interests include HIV-associated lung disease as well as the role of the microbiome in disease. Her group works with large cohort epidemiologic studies of HIV and other diseases as well as in translational studies where physiologic and molecular techniques are applied to patient populations. As part of her role in the Center for Medicine and the Microbiome, she works with collaborators in diverse areas studying the microbiome.

Dr. Morris’s research interests focus on several overlapping areas, including the role of the microbiome in HIV-associated lung disease; understanding and manipulating the respiratory and gut microbiota in the ICU; the role of nitrate-reducing bacteria in pulmonary hypertension; HIV-associated emphysema and pulmonary hypertension; and the role of Pneumocystis and other fungi in COPD and HIV.

Michael Myerburg MD
Dr. Myerburg’s primary research interest is to determine the mechanisms and pathological conditions associated with hydration of the airway lumen. To this end, he has extensive experience with several techniques to measure the airway surface liquid (ASL) volume, ciliary beat frequency, and airway epithelial ion transport. He has developed novel high-throughput techniques to measure ASL volume and ASL pH.

Dr. Myerburg’s lab is currently studying the effects of Th2 type cytokines on ASL volume, airway innate immunity, the role of several transport proteins on ASL hydration, and post-translational modifications to the epithelial sodium channel (ENaC). These projects are funded by the NIH and the Cystic Fibrosis Foundation.

Seyed Mehdi Nouraie MD PhD
Dr. Nouraie’s outstanding skills as a biostatistician helped facilitate the development of several key studies in the area of sickle cell disease, including projects on transition to adult care, predictors of pulmonary hypertension in sickle cell disease, and application of big administrative data in sickle cell disease outcome studies through data management and analysis.

His research on the design and analysis of clinical studies in the area of GI benign and malignant disease, sickle cell, and cardiovascular disorders has resulted in more than 100 peer reviewed publications.

Currently, he is interested in assessing the pulmonary complication of obesity and metabolic syndrome.
Toru Nyunoya MD
Dr. Nyunoya's research interests include the potential role of DNA repair in the development of Chronic Obstructive Pulmonary Disease (COPD) and novel modulators for smoking-induced COPD. He has an interest in identifying a natural product to protect against cigarette smoke-induced DNA damage and cytotoxicity.

Christopher O'Donnell PhD
Dr. O'Donnell's interests are in the pathophysiology of hypoxia and sleep apnea and its relationship to metabolic and cardiovascular dysfunction. His laboratory utilizes murine models of obesity and hypoxia using a variety of chronically instrumented inbred and transgenic mouse strains. In respiratory studies, he has established in the genetically obese ob/ob mouse that leptin deficiency leads to respiratory depression, and that leptin replacement can correct this respiratory depression independent of weight, food intake, or metabolism. In metabolic studies, he has demonstrated that lean mice can exhibit insulin resistance and hyperlipidemia during exposure to intermittent hypoxia (simulating sleep apnea) as well as leading to a compensatory increase in pancreatic beta cell replication. More recently, he has shown that long-term exposure to sustained hypoxia (simulating altitude) can lead to compensatory increases in insulin sensitivity. In cardiovascular studies, Dr. O'Donnell and colleagues have studied the impact of heart failure on disruption of sleep architecture, and examined how the upregulation of cardiac leptin signaling plays a crucial role in reducing morbidity and mortality in response to myocardial ischemia. Finally, in collaboration with Dr. Bryan McVerry, Dr. O'Donnell is studying the mechanisms underlying the development of hyperglycemia in critical illness.

Timothy Oriss PhD
During his doctoral thesis work, Dr. Oriss studied the role of Epstein-Barr virus in post-transplant lymphoproliferative disorders. This sparked his interest in immunology, which he then pursued during two post-doctoral fellowships. During the first, he studied cytokine crosregulation between murine T helper type 1 and T helper type 2 cells. And during the second, he studied human T cell responses to autoantigens stimulated by dendritic cells in the setting of the autoimmune disease, systemic sclerosis, also commonly known as scleroderma.

More recently, Dr. Oriss has focused on many aspects of dendritic cell biology in lung disease, particularly asthma. He developed a murine model of experimental airway inflammation utilizing direct sensitization to allergen via the airways, which has facilitated the study of DC-mediated priming events in the lung-draining lymph nodes. This basic methodology has been adapted for other experimental systems by a number of others in the laboratory. He received a Dalsemer Award from the American Lung Association in 2007 to study effects of agonists of PPAR-g on DC migration in vivo, and is a co-investigator on a number of grants involving DC biology. Dr. Oriss has collaborative efforts with the laboratory of Sally Wenzel MD to study the basic biology of severe asthma in humans.

He has a long-standing interest in flow cytometry, and he is primarily responsible for the operation and maintenance of two flow cytometers. His expertise with flow cytometry has led to a number of collaborative efforts with investigators within, as well as outside of PACCM.

Sanjay Patel MD MS
Dr. Patel's research interests focus on understanding the epidemiology of sleep disorders, with a particular emphasis on chronic partial sleep deprivation and obstructive sleep apnea and the potential effects of these disorders on metabolism. He has published extensively on the subject of obesity management and glucose metabolism with sleep apnea, as well as on the association between curtailed sleep and long-term health effects. Dr. Patel was one of the first to identify long sleep as a predictor of adverse health outcomes and is currently conducting a clinical trial evaluating the cardiovascular impact of treating sleep apnea in a diabetic population.

Other interests include identifying genetic risk factors for obstructive sleep apnea, understanding disparities in sleep disorders and their contribution towards cardiovascular health disparities, and identification of clinical and public health interventions to improve sleep in at-risk populations.
Andrej Petrov MD
Dr. Petrov's research interests focus on conditions that mimic asthma, hypogammaglobulinemia in lung transplant patients, and allergic drug reactions.

Vocal Cord Dysfunction (VCD) is often misdiagnosed and mistreated as asthma, leading to increased asthma medication use and healthcare utilization. While laryngoscopy remains the gold standard for VCD diagnosis, it is often not readily available or practiced by many physicians who may encounter this disorder. Additionally, laryngoscopy may be normal if performed when a patient is asymptomatic.

Dr. Petrov and co-inventors developed the Pittsburgh VCD Index, a simple, valid and easy to use tool for diagnosing VCD. This novel scoring system identified features of VCD that distinguish it from asthma. Symptoms of throat tightness and dysphonia, absence of wheezing, and the presence of odors as a symptom trigger were found to be key features of vocal cord dysfunction that distinguish it from asthma. Using the appropriate cut-off, the index had a sensitivity and specificity of 83% and 95%, respectively, and its utility was confirmed in a population of patients with laryngoscopy-proven VCD. Pittsburgh VCD Index may decrease health care costs, unnecessary medication use and healthcare utilization by making a timely diagnosis of VCD in a patient mistreated for asthma.

Joseph Pilewski MD
Dr. Pilewski's research interests mirror his clinical interest and expertise. He directs a research program in epithelial cell biology focused on ion transport and mucin structure and function in normal and Cystic Fibrosis airways. He also leads translational research projects focused on development of new therapies for CF and other diseases of mucus obstruction, as well as the identification of biomarkers of disease activity. He is a co-investigator on NIH and CF Foundation-sponsored center grants focused on CF, and a co-investigator in the Cystic Fibrosis Foundation Therapeutics Development Network.

Matthew Pipeling MD
Dr. Pipeling's research interests include the assessment of CMV-specific cell-mediated immunity to allow risk stratification of lung transplant recipients and potentially guide clinical management with regards to CMV viremia and disease; post-transplant lymphoproliferative disorder (PTLD)-assessment of risk factors, therapeutic options and efficacy, and relationship to EBV-specific immunity; and the Thrombotic Thrombocytopenic Purpura (TTP)-association with calcineurin inhibitor-based immunosuppression and allograft outcomes with the use of calcineurin inhibitor-free immunosuppression.

Iulia Popescu PhD
Dr. Popescu has a solid academic background in immunology, cancer, virology and transplantation, and a keen interest in research and clinical trials. Among her other research interests are immunology and translational science, new drug discovery and technology, the evaluation of potential new targets in proof of concept studies, the pre-clinical/clinical stage of drug development, and clinical biomarker research and development.

Ronald Poropatich MD
Dr. Poropatich is a co-Investigator on four DoD-funded research projects at the University of Pittsburgh.
- “Targeted Evaluation, Action, & Monitoring of Traumatic Brain Injury (TEAMTBI)”
  This clinical trial that brings together civilian and military TBI patients, advanced evaluation methods, and world class experts in a monitored, multiple interventional trial design to address the heterogeneity of TBI and identify evidence-based treatment protocols. The goal is to confirm efficacious targeted therapies for TBI and provide deployable protocols and technology for large-scale cost-effective diagnosis and management.
- “Advanced Longitudinal Diffusion Imaging for TBI Diagnosis of Military Personnel”
  This project will develop and advance MRI-based diffusion technology to quantify white matter loss in Traumatic Brain Injury (TBI) using MRI-based High Definition Fiber Tracking (HDFT) developed by this group.
The project will implement, rigorously test, push through regulatory submission, and deploy this technology to DoD/VA hospitals.

- “Combination of Extracorporeal Life Support and Mesenchymal Stem Cell Therapy for Treatment of ARDS in Combat Casualties and Evacuation of Service Members with ARDS”. This research aims to determine the best way to treat acute lung injury with and without intra-bronchial mesenchymal stem cells administered with low flow extra-corporeal membrane oxygenation (ECMO).

- “Oral Nitrite Therapy to Improve Physical Performance at High Altitude and to Prevent High Altitude Pulmonary Edema and High Altitude Cerebral Edema.” The objective of this study is to see if an FDA-approved nitrite pill can be used to prevent HAPE/HACE in a low-oxygen environment.

Shulin Qin MD PhD
Dr. Qin’s research interests focus on HIV, microbiome, and emphysema.

Prabir Ray PhD
Dr. Ray is interested in immunoregulatory mechanisms of lung inflammation as they relate to disease inception and resolution. He pioneered the development of inducible cell-specific transgenic mice in his early career at Yale University and demonstrated an important role of the growth factor KGF in protection from lung injury. More recently, his group identified a central role of the c-kit-PI3 kinase axis in promoting Th17 and Th2 differentiation and asthma using an experimental model. This work was chosen for the Year in Immunology 2010 publication of the New York Academy of Sciences.

His current research focuses on immune responses to pulmonary infections. His work has shown an important role of lung myeloid cells resembling MDSCs in resolution of lung inflammation during bacterial pneumonia. His group is also studying immune responses to infection by respiratory syncytial virus (RSV). RSV infection is common in infants and can cause severe bronchiolitis requiring hospitalization. Currently, there is no effective vaccine against RSV. Epidemiological studies have associated severe RSV-mediated illness with asthma development in later life and recent work from his lab suggests impairment of Treg function by RSV as one underlying mechanism. This study received significant attention nationally and internationally. Ongoing research in his lab is directed at understanding interactions between cells of the innate immune system and airway epithelial cells during RSV infection, using both human samples and animal models, which may lead to new approaches to defend against RSV.

Anuradha Ray PhD
Dr. Ray’s overall research interest is to understand mechanisms of immune tolerance versus inflammation in the lung as they relate to pulmonary diseases, such as severe asthma and host-pathogen interactions. Early research from her lab led to the identification of NF-κB as a target for glucocorticoid-mediated repression of gene expression and the discovery of GATA-3 as a master regulator of Th2 cells, which promote allergic diseases including asthma. Her laboratory also identified a key role for Tregs expressing membrane-bound TGF-β with cross-talk with Notch in promoting immune tolerance in the airways.

The primary goal of Dr. Ray’s current research is to understand the immunological and molecular differences between severe and milder asthma and the mechanisms underlying poor response to corticosteroids in severe disease. A study published recently by her group has demonstrated an IFN-γ (Th1) immune bias in more than 50% of severe asthmatics. This study also utilized a newly developed animal model of severe asthma established in her lab, which can be used to test novel therapeutics for severe asthma. This bedside-bench study identified a detrimental role of IFN-γ in downregulating expression of the protease inhibitor, SLPI, in the airways of both humans and mice. In the context of immune tolerance, her recently published study has identified an important role of mitochondrial metabolism in lung dendritic cells in the maintenance of immune tolerance in the airways. Studies in her laboratory employ animal models of disease and human samples, which are analyzed using immunological, molecular, biochemical, physiological and imaging techniques.
Raju Reddy MD
Dr. Reddy’s research interests include orphan nuclear receptors, PPARs and orphan nuclear receptors in lung disease, PPAR ligand characterization, and pulmonary drug discovery.

Michael Risbano MD MA
Dr. Risbano is interested in the hemodynamic evaluation of subjects with pulmonary hypertension and the correlation of hemodynamic values with biomarkers for the early diagnosis of pulmonary hypertension. He is directly involved in the clinical and research exercise right heart catheterization efforts, in which we identify patients with various forms of exercise pulmonary hypertension.

Dr. Risbano has worked closely with Dr. Mark Gladwin in the study of endothelial function in response to the infusion of aged red cells. Most recently, he has published the study, Effects of Aged Stored Autologous Red Blood Cells on Human Endothelial Function, in the American Journal of Respiratory and Critical Care Medicine. This study demonstrated that intra-arterially infused red blood cells at the upper limits of storage impaired endothelial function, as measured by the reduced forearm blood flow responses to acetylcholine, an endothelium NO synthase-dependent vasodilator.

Dr. Risbano is also the PI for a number of investigator-initiated and Pharma-related research clinical trials.

Keven Robinson MD
Dr. Robinson’s research interests include pulmonary host defense, immunology of acute respiratory infections, and immunology of chronic respiratory infections. Her current projects examine influenza and bacterial super-infection.

Mauricio Rojas MD
Being trained as a MD doing basic and translational research on immunology, Dr. Rojas has a complete perspective to understand the importance of translational medicine. His basic research focuses on the biology of lung injury and repair, especially in models of pulmonary fibrosis, acute lung injury, and radiation. Dr. Rojas' laboratory has produced pioneering work on the development of pre-clinical models for the use of bone marrow derived-MSC on acute and chronic injury. His novel area of research is the human ex vivo perfusion program, using human normal lungs and diseased lungs, studying the effect of novel therapies like stem cells, non-coding RNAs, and small molecules as pre-clinical models for the implementation of new lung disease therapies. This protocol in combination with the collection of tissues samples from explanted lungs, has allowed his laboratory to build a program of organ/tissue collection from normal and disease lungs including scleroderma.

Leslie Scheunemann MD MPH
Dr. Scheunemann’s research focuses on developing interventions to improve how clinicians and families communicate about critically ill patients’ values and preferences during decision-making about life support. Her initial contribution was to demonstrate problems with the communication about patients’ values and preferences; she is now developing research tools to assess the effectiveness of potential interventions.

Frank Sciurba MD FCCP
Dr. Sciurba’s long-term research interest includes volume-reduction strategies in patients with advanced emphysema and the use of exercise testing as a diagnostic and outcome tool in lung disease.

Additional research interests and topics of published work include the assessment of new concepts related to patterns of pulmonary and systemic inflammation associated with COPD, the impact of therapy on dynamic hyperinflation, the role of quantitative imaging in the assessment and reclassification of COPD, the design of the VENT endobronchial valve trial and role of valves in relieving native lung hyperinflation following lung transplantation, the retinoic acid FORTE trial, gender differences in COPD, assessment of methodology of pulmonary exercise testing and activity monitoring in COPD, and the important role of autoimmunity in the progression of COPD.
Faraaz Shah MD
Dr. Shah is an F32 postdoctoral scholar studying the impact of early nutritional support on the development of metabolic dysfunction and hyperglycemia in mouse models of sepsis, with a particular focus on the role of intestinal derived incretin hormones. He maintains an interest in the long-term cognitive impact of critical illness with an eye toward understanding the mechanisms underlying this complication for future translational studies.

Steven Shapiro MD
Dr. Shapiro’s laboratory focuses on the role of inflammatory cell-derived proteinases in the progression of COPD/emphysema and lung cancer. He originally cloned and knocked-out macrophage elastase (MMP-12) to demonstrate that MMP-12-deficient mice are completely protected from the development of cigarette smoke-induced emphysema. Dr. Shapiro’s lab has continued to study the contribution of numerous inflammatory cell-derived proteinases in emphysema and lung cancer progression using gene targeting in mice. More recently, his lab has begun to study the role of repair (or lack thereof) in the progression of emphysema by using lineage-tagging approaches to study putative stem cell populations residing within the lung.

Courtney Sparacino-Watkins PhD
Dr. Sparacino-Watkins’s dissertation work established that the Epsilonproteobacterial periplasmic nitrate reductase (Nap) system has a high affinity for nitrate and unique molecular differences (Sparacino-Watkins, et al. Chem. Soc. Rev. 2014). She used several methodologies, such as theoretical protein structure modeling, matrix-based phylogenetic analysis, mass spectrometry, recombinant protein purification, and enzyme kinetics. She developed methodology to design and isolate recombinant proteins with organic prosthetic groups, such as molybdopterin of molybdenum-dependent enzymes.

During her post-doctoral training, Dr. Sparacino-Watkins redirected her research to focus on translational and biomedical research. With Dr. Mark Gladwin, she utilized her background on bacterial nitrogen metabolism and molybdenum enzymes to study inorganic nitrogen (nitrate, nitrite, and nitric oxide) metabolism in humans. She identified a new aspect of the nitrate-nitrite-nitric oxide pathway by establishing that the human mARC-1 and mARC-2 molybdenum enzymes are able to reduce nitrite into NO (Sparacino-Watkins, et al. JBC, 2014). Additionally, she has been instrumental in developing new experimental methods for quantitation of nitric oxide using the nitric oxide analyzer (NOA), a sensitive analytic method that utilizes gas-phase chemiluminescence and provides unmatched specificity for nitric oxide. She is also active in characterization of other human nitrite reductase enzymes.

Dr. Sparacino-Watkins continues her work on defining the molecular mechanisms behind the therapeutic effects of nitrite on pulmonary arterial hypertension. She is now working on defining the function of mARC enzyme catalyzed nitrite reduction to NO in vivo by studying the effect of mARC2 knockout in mice on the therapeutic effects of nitrite in pulmonary arterial hypertension.

Patrick Strollo MD FACP FCCP FAASM
Dr. Strollo’s projects have examined the utility of portable monitoring for the diagnosis of sleep apnea, as well as the novel treatment of sleep apnea, and the impact of sleep apnea on cardiovascular risk.

Bin Sun MD
Nitric oxide(NO) is essential in regulating vasodilation. Dr. Mark Gladwin’s lab has discovered nitrite, as a NO reservoir, can be reduced to NO by hemoglobin. Molybdenum(Mo)-containing enzyme mitochondrial amidoxime reducing component 2(mARC2) has also been shown to chemically reduce nitrite to NO under hypoxic condition. Dr. Sun is focusing on establishing cell models by altering mARC2 expression in COS7 endothelial and smooth muscle cells to study the functions and mechanisms of mARC2 as nitrite reductase. The potential of the sGC enzyme itself as a nitrite reductase is also under investigation.
The potential role of sGC modulators Bay 41 and Bay 58 compounds in the treatment of sickle cells symptoms by increasing fetal hemoglobin gene expression has been discovered by Gladwin’s lab. The molecular mechanisms and pathways involved in sGC modulators induced fetal hemoglobin gene expression in human primary erythroid progenitor cells are being explored.

**Prithu Sundd PhD**
Dr. Sundd’s research interests include the mechanisms of leukocyte rolling and arrest during inflammation, the role of neutrophils in pulmonary vasculo-occlusion during sickle cell disease Acute Chest Syndrome, and the identification of molecular mechanism of vasculo-occlusion in SCD (SS) patient blood.

**John Tedrow MD MEng**
Dr. Tedrow’s research interests focus on the genomics of complex lung disease. He has been examining RNA expression initially in COPD and IPF using data generated through the Lung Genomics Research Consortium. More recently, he has been looking at genomic phenotypes in asthma, using data from the Severe Asthma Research Project.

**Jesus Tejero Bravo PhD**
Dr. Tejero’s research focuses on the reactions of nitrite and nitric oxide with heme proteins. The nitrite-heme reactions are of growing interest because of their role in nitric oxide signaling pathways and because they play a significant role in physiological and pathological situations. His current research is aimed at understanding and characterizing the chemical and kinetic features of the reactions of nitrite with hemoglobin, myoglobin, cytoglobin, and neuroglobin.

**Stevan Tofovic MD PhD FAHA FASN**
Dr. Tofovic has had a sustained interest in the development and characterization of complex animal models of cardiovascular and renal disease, with primary focus on pulmonary hypertension, heart failure and diabetic nephropathy. Using these model systems, he studies the underlining pathophysiology of cardiovascular/renal diseases and evaluates new therapeutic modalities. Dr. Tofovic has developed and characterized the obese diabetic ZSF1 rat as a model of diabetic nephropathy and heart failure with preserved ejection fraction (HFpEF) and has published most of the papers in this area.

Dr. Tofovic’s lab is one of the few laboratories in the country that is studying the effects of gender and estradiol metabolism on the development and progression of pulmonary hypertension. He was first to suggest that estradiol metabolism may influence the development and progression of PH (2005). More recent studies are related to the effects of sex and sex hormones and their metabolites on development of HFpEF and the role of adenosine metabolom and adenosine-adenosine demainase axis in PH with focus on hemolysis-induced hemolytic pulmonary vasculopathy.

**Kristen Veraldi MD PhD**
Dr. Veraldi’s research interests are in the molecular underpinnings of fibrosing lung diseases, such as idiopathic pulmonary fibrosis (IPF) and connective tissue disease-related interstitial lung disease, with a particular interest in the contribution of heat shock proteins to the development and progression of fibrosis.

**Ling Wang MD PhD**
Dr. Wang has two main areas of interest. The first focuses on the nitrite and NO signaling pathway in vascular and cardiopulmonary diseases, such as ALI, lung fibrosis, PAH and I/R injury. In particular, he is investigating the downstream signaling pathways regulated by nitrite and NO in cellular and animal models in order to identify new therapeutic targets and develop nitrite-based therapy. The second research focus centers on mutant human Ngb as an antidote for carbon monoxide poisoning. This research aims to develop a specific antidote using mutationally engineered human Ngb as a “CO trap,” which removes CO from blood, tissue and cells.
Xingan Wang MD PhD
Dr. Wang's research interest is bridging the bench and the bedside in three areas of lung transplantation: donor shortage, ischemia-reperfusion injury, and transplant rejection. As a scientist with 11 years of experience in thoracic surgery, he has taken his surgical skills and medical care from the bedside back to bench, refining and establishing the mouse models of lung transplantation, intravital Two-photon imaging, and serial intravital imaging. Hyaluronan accumulation and pseudomonas infection were found to be related to clinical lung allograft rejection. The Wang lab's studies revealed the mechanisms and explored potential prevention with animal models. Neutrophil extracellular traps (NETs) are recently reported to be involved in neutrophil-induced damage. One recent study done by Dr. Wang's lab visualized neutrophil extracellular traps (NETs) and revealed their special roles in ischemia reperfusion injury and rejection in the lab's mouse lung transplant model. Eliminating NETs with such drugs as DNase worsen the lung injury and rejection. Dr. Wang's study is expected to provide even greater understanding of the mechanism and will further explore potential therapeutic targets. Collaborating with the specialists in micro positron emission tomography (PET) and micro magnetic resonance imaging (MRI), the lab has explored new non-invasive diagnostic methods for acute rejection in mouse lung transplants. Finally, the Wang lab's continuing research combines lung transplantation and Ex Vivo Lung Perfusion (EVLP) in mice. This would accelerate the translational study on EVLP and the non-heart-beating donor lung, alleviating the donor shortage.

Nathaniel Weathington MD PhD
Dr. Weathington's diverse research interests include the regulation of cytokine receptors in the lung and the impact of that regulation on immunity. Closely related immunoreceptors (e.g. IL-17Ra and IL-17Rb) function as highly divergent drivers of tissue immunity (toward type 17 or type 2, respectively). Dr. Weathington's lab analyzes RNA induction, transcription factor activation, and protein stability to study the induction and maintenance of these and other receptors in lung epithelia and alveolar macrophages across different stimuls paradigms.

Another area of interest regards the activity of the ubiquitin system and its regulation of normal and pathological biology. Working within Dr. Rama Mallampalli's Center for Acute Lung Injury, the group has pioneered the preclinical development of small molecule anti-inflammatory agents that target critical mediators of protein stability regulating inflammatory pathways. These studies have advanced the understanding of inflammatory signaling and have led to development of first-in-class therapeutic agents that may someday be utilized to combat human inflammatory diseases. Researchers in the Weathington lab have developed a human whole lung perfusion system as a preclinical system to evaluate tissue responses to endotoxemic lung injury.

Sally Wenzel MD
Having a clinical interest in asthma, Dr. Wenzel has developed a strong translational program to study the pathobiology and mechanisms of the human disease. She is one of seven NHLBI-funded investigators in the Severe Asthma Research Program (SARP) network and she co-directs a PO1 on severe asthma with her collaborator, Dr. Anuradha Ray. Through SARP and her own efforts, Dr. Wenzel has accumulated a clinical database of over 500 subjects with asthma and healthy controls, most of whom have matching airway tissue, cells, and sputum/lavage. Her lab is one of few which is able to match an extensive clinical phenotype of a subject with responses at a cellular/molecular level. She is developing rich databases of gene expression in asthma. Her current bench-lab interests include the role of epithelial cells in controlling airway inflammatory responses, oxidative and nitrative stress, as well as their interactions with mast cells and Th1 immune responses. She currently heads the University of Pittsburgh Asthma Institute@UPMC, and holds the UPMC Chair in Translational Airway Biology.

David Wilson MD MPH
Dr. Wilson’s research interests include: lung cancer screening and chemoprevention, diagnosis, staging and treatment; COPD, especially as it relates to lung cancer; occupational lung diseases; general pulmonary medicine; and nutrition support. His primary focus currently is the development of predictive tools, beyond emphysema, for risk stratification for lung cancer screening. This work includes risk prediction formulas, surrogate tissue biomarkers, and imaging biomarkers.
Zeyu Xiong MD MS
The immunosuppressive effects of red cell transfusion has long been clinically recognized, but the underlying mechanisms for this effect remain elusive. Moreover, this effect may modify the outcomes of disease in critically ill patients with infection. Dr. Xiong's lab is investigating the mechanism of immune suppression in a combined bacterial pneumonia-red cell transfusion study and examining the hypothesis that the red cell microparticles that accumulate within stored transfusates elicit an immunosuppressive phenotype through the suppression of NFRB gene activation.

Dr. Xiong's lab has a great interest in the role of macrophages and neutrophils in innate immune response, especially in bacteria infections. Despite recent advances in understanding macrophage activation, little is known regarding how human alveolar macrophages in health calibrate its transcriptional response to canonical TLR4 activation. With RNA-seq technology, researchers in Dr. Xiong's lab examined the full spectrum of LPS activation and determined whether the transcriptomic profile of human alveolar macrophages is distinguished by a TIR-domain-containing adapter-inducing interferon-ß (TRIF)-dominant type I interferon signature. Also determined was whether IRF-7 and USP-18 can influence downstream macrophage effector cytokine production such as IL-10. Dr. Xiong's lab showed that IRF-7 siRNA knockdown enhanced LPS-induced IL-10 production in human monocyte-derived macrophages, and USP-18 overexpression attenuated LPS-induced production of IL-10 in RAW264.7 cells. Quantitative PCR confirmed upregulation of USP18, USP41, IL10, and IRF7. These results suggest that IRF-7 and predicted downstream target USP18, both elements of a type I interferon gene signature identified by RNA-Seq, may serve to fine-tune early cytokine response by calibrating IL-10 production in human alveolar macrophages.

Anna Zemke MD PhD
Pseudomonas aeruginosa forms highly antibiotic resistant biofilms in the airways of people with cystic fibrosis and other lung diseases. Nitrosative stress arrests bacterial respiration, thus researchers in Dr. Zemke's lab is developing nebulized nitrite as an antimicrobial agent. In the laboratory, a bacterial epithelial co-culture model is used to study how nitrosative stress modulates bacterial respiration and to study the physiology of biofilm dispersal. The lab is conducting a Proof of Concept human subjects study, using nebulized nitrite within the Cystic Fibrosis Center at Pitt in collaboration with Dr. Joe Pilewski.

Yingze Zhang PhD
Dr. Zhang's research focuses on the molecular and genetic basis of pulmonary and vascular diseases, including COPD, ILD, sleep apnea and sickle cell and systemic complications associated with these diseases. She is also actively working on the discovery and validation of prognostic and diagnostic biomarkers related to lung and vascular diseases. In addition, her laboratory is actively investigating the functional significance of disease associated genetic variants and their roles in disease pathogenesis. Dr. Zhang also directs the translational core lab for the Division of Pulmonary, Allergy and Critical Care Medicine and the Biobank for Cardiology and Vascular Medicine Institute. She has been PI or co-I on multiple grants funded by NIH and other agencies. She has published over 100 peer-reviewed manuscripts.

Liyong Zhang PhD
Dr. Zhang's research interests focus on clarifying the molecular mechanisms underlying human diseases and identifying potential therapeutic targets as well as biomarkers. He studies adipose-derived stem cells (ADSCs) and cancer stem cells (CSCs), looking at the isolation, characterization, and tri-differentiation of ASCs; paracrine secretion potency of adipose tissue components including SVFs, ASCs, fat particles, and adipocytes from breast cancer patients; assessment of the interaction between breast cancer cells and adipose tissue components in vitro and in vivo; and the identification of coactivator activator (CoAA) as CSC marker.

Also investigated in Dr. Zhang's lab is inflammation and immune regulation by nitric oxide (NO) and the inducible NO synthase (iNOS). Specifically, he is looking at TLR3 tyrosine 759 phosphorylation enhancement of interferon-ß synthesis through iNOS/PKR/Src axis in hepatocytes and Prohibitin 1 associates with iNOS to regulate TNFR1 shedding in hepatocytes.
The role of the ubiquitin-proteasome system (UPS) in genomic stability and tumorigenesis is also being investigated, including how the proteolysis of Rad17 by Cdh1/APC regulates checkpoint termination and recovery from genotoxic stress; the regulation of KLF4 turnover and the unexpected tissue-specific role of pVHL in tumorigenesis; and the involvement of casein kinase II in APC-mediated TGF-β signaling.

Finally, Dr. Zhang's lab is researching molecular mechanism studies that reveal potential therapeutic targets for cancer, specifically the protein biomarker identification from ESCC serum and an ELISA kit (Cat # RD194034200R) commercialized by BioVendor-Laboratorní Medicína, A.S.; the function of stefin A in cancer cells and new tools for angiogenesis drug discovery commercialized by BioMol International; the identification of differentially expressed genes in ESCC and the novel role characterization of stomatin-like protein 2 (SLP-2); and the identification of differentially expressed miRNAs in pancreatic cancer, cervical cancer, prostate cancer, and head and neck cancer, and analysis of the role of miRNA candidates in pancreatic cancer.

**Jing Zhao MD PhD**
Dr. Zhao's research investigates histone acetyltransferase stability in acute lung injury. The ubiquitin-proteasome system is the major pathway of non-lysosomal intracellular protein degradation and controls pro- and anti-inflammatory responses by modulating immune regulatory signal protein turnover. Dr. Zhao is focusing on the role of de-ubiquitination enzyme USP14 and E3 ubiquitin ligase subunit FBXL19 in the regulation of CBP stability, activity, and histone acetylation in lung injury and sepsis.

Another research interest of Dr. Zhao is to determine the role of de-ubiquitination enzymes in the regulation of pulmonary endothelial integrity. She has identified that a novel de-ubiquitination enzyme plays a critical role in maintaining pulmonary endothelial barrier function. She is using proteomics tools as well as molecular and cellular biological techniques to reveal the molecular mechanisms by which the de-ubiquitination enzyme regulates VE-cadherin localization and cytoskeletal rearrangement.

**Jinming Zhao PhD**
Dr. Zhao's research has been focused on the pathogenesis of severe asthma as it relates to the role of the 15-Lipoxygenase-1 (15LO1) signaling pathway. 15-Lipoxygenase 1 is one of several key enzymes involved in arachidonic acid (AA) metabolism. Using primary human airway epithelial cells as a model, Dr. Zhao's research suggests that 15LO1 increases with severity of asthma and regulates MUC5AC gene expression. He was the first to show that 15LO1 interacts with Raf-1/PEBP1 to regulate MAPK/ERK signal pathway and amplify IL-4Ra signaling in human airway epithelial cells. These data suggest that the 15LO1 pathway could play a critical role in regulating gene expression that contributes to asthma pathogenesis. Dr. Zhao is particularly interested in the mechanism of 15LO1 expression in chronic Th2 background, the downstream effects of 15LO1 pathway activation on inflammatory gene expression, and the key biologic activity of the 15LO1 enzyme products.

**Yutong Zhao MD PhD**
The primary goal of Dr. Zhao's laboratory research is to investigate the role of bio-active phospholipid receptors in the pathogenesis of sepsis and lung inflammatory diseases. His lab has discovered that lysophosphatidic acid (LPA) and its receptors play a critical role in regulating cytokine release and cytokine receptor expression, and the pro-inflammatory effects are mediated by GPCR and cross-talk with LPS co-receptor, CD14. His current project is to reveal the molecular regulation of LPA receptors by ubiquitination and de-ubiquitination.

A second research interest is to understand the role of de-ubiquitination enzymes in the regulation of the interleukin-1 receptor/Toll-like receptors (TLRs). Dr. Zhao's lab has been investigating the IL-33 receptor ubiquitination, phosphorylation, and internalization. It has uncovered a new ubiquitin E3 ligase that regulates IL-33 receptor stability, and recently, the lab's research showed that phosphorylation of IL-33 receptor by GSK3β promotes IL-33 receptor internalization. Currently, Dr. Zhao is focusing on molecular regulation of IL-1R8 stability in lung injury and sepsis.
The researchers in Dr. Zhao's lab are also interested in revealing the role of de-ubiquitination enzymes in TGF-β signaling, tumorigenesis, and innate and adaptive immunity. His research shows that TGFRII and Smad2/3 stability are tightly controlled by USP11 and UCHL5—and he is focusing on the molecular regulation of key transcriptional factors stability by novel de-ubiquitination enzymes.

**Xiuxia Zhou PhD**

Dr. Zhou's research has focused on the signaling pathways related to extracellular matrix turnover and the role and function of chemoattractant molecules in primary human lung fibroblasts. Specifically, her work involves looking at the cellular responses to IL-13 and TGF-β in fibroblasts during lung inflammation and repair in asthma. Dr. Zhou's studies focus on the TGF-β and IL-4Ra signaling pathways on extracellular matrix metabolism, airway inflammation and remodeling in primary human fibroblasts obtained from normal and asthmatic subjects. Her research also investigates regional fibroblasts heterogeneity in asthma. Specifically, she has been interested in regulatory mechanisms that determine the differences between fibroblasts isolated from proximal and distal lung. Dr. Zhou has successfully transfected primary human lung fibroblasts with dominant negative constructs or siRNA, and would like to fully understand the mechanisms controlling their phenotypic differences using an epigenetic approach.

**Chunbin Zou MD PhD**

Dr. Zou's laboratory focuses on epigenetics in the lung and the deregulation of epigenetic enzymes in pulmonary inflammation and infection. The goal of one ongoing study is to understand how histone O-palmitoylation acts as a new epigenetic mark to regulate gene transcription. A related study area is the understanding of the molecular mechanism(s) of deregulation of epigenetic related enzymes at protein level in pulmonary infection, pneumonia, acute lung injury and acute respiratory distress syndrome by utilizing the state-of-the-art molecular, cellular and biochemical approaches and techniques. The research's long-term goal is to unveil the molecular behavior at protein level in pathophysiological settings and identifying epigenetics-oriented therapeutic strategy for multi-drug resistant infectious pulmonary diseases.
Faculty Research and Other Scholarly Activities

Charles Atwood MD
- Fellow, American College of Chest Physicians, 1992-present
- Core Member, Center for Health Equity Research and Promotion (CHERP), VA Pittsburgh Healthcare System, 2006-present
- Reviewer, CHEST, 1998-present
- Reviewer, Sleep, 2001-present
- Reviewer, American Journal of Respiratory and Critical Care Medicine, 2003-present
- Reviewer, Journal of General Internal Medicine, 2005-present
- Reviewer, Journal of Applied Physiology, 2005-present
- Reviewer, Journal of Clinical Sleep Medicine, 2006-present
- Reviewer, VISN 4 Competitive Pilot Study Program, 1998-present
- Reviewer, CNRC–IRB projects, 2002-present
- Reviewer, WPIC Internal Grants, 2005-present
- Chair, Clinical Informatics Committee, VA Pittsburgh Healthcare System, 2002-present
- Research and Development Committee, VA Pittsburgh Healthcare System, 2007-present
- Advisory Committee, Neuroscience- Clinical Translational Science Institute (N-CTSI), 2006-present
- Editor in Chief, ACCP SEEK for Sleep Medicine, 2008-present
- Director, Multidisciplinary Sleep Medicine and Research Conference, 2004-present
- Adverse Events and Procedure Reporting Committee, 2007-present
- Chair, Veriphy Implementation Taskforce, 2010-present
- VISN 4 Telehealth Council, 2010-present
- Co-Chair, VAPHS Telehealth Taskforce, 2010-present
- Admissions Interviewing Committee, 2003-present
- Neuroscience – Clinical Translation Science Institute (N-CTSI) Advisory Committee, 2006-present
- University of Pittsburgh Press Advisory Committee, 2014-present

Annerose Berndt PhD DVM
- Editorial Board (Review Editor), Frontiers in Genomic Physiology, 2011-present

Sharon Camhi MD
- Patient and Family Support Committee, Society of Critical Care Medicine, 2008-present

Divay Chandra MD
- American Thoracic Society, 2008-present

Beibei (Bill) Chen PhD
- Editor, Journal of Allergy and Therapy, 2009-present
- Ad hoc reviewer, American Journal of Respiratory Cell and Molecular Biology, 2010-present
- Ad hoc reviewer, Journal of Medicinal Chemistry, 2010-present
- Ad hoc reviewer, Journal of Biological Chemistry, 2010-present
- Ad hoc reviewer, Molecular Cancer Therapeutics, 2012-present
- Ad hoc reviewer, PLoS One, 2012-present
- Ad hoc reviewer, Journal of Clinical Investigation, 2012-present
• Ad hoc reviewer, *Laboratory Investigation*, 2012-present
• Ad hoc grant reviewer, AFM Telethon, 2012-present
• Ad hoc grant reviewer, University of Pittsburgh CMRF, 2015-present

**Timothy Corcoran PhD**
• Editorial Board, *Journal of Applied Physiology*, 2010-present
• Imaging group chair, International Society for Aerosols in Medicine, 2009-present
• American Association for the Advancement of Science, 2009-present

**Maria Crespo MD**
• Peer Reviewer, *Up-to-Date: Lung Transplantation*, 2011-present
• Fellow (FCCP), American College of Chest Physicians, 2005-present
• American College of Physicians, 2005-present
• American Thoracic Society, 2005-present
• Society of Critical Care, 2005-present
• International Society for Heart Lung Transplantation, 2005-present
• International Bronchology Association, 2005-present

**Michael Donahoe MD**
• Grant Reviewer, VA Merit Review Consultant, 1999-present
• Manuscript Reviewer, *CHEST*, 1999-present
• Manuscript Reviewer, *Respiratory Medicine*, 1999-present
• Fellow, American College of Chest Physicians, 1999-present

**Merritt Fajt MD**
• American Academy of Allergy, Asthma and Immunology, 2007-present: Fellow, 2014-present
• Board Member (Vice President), Greater Pittsburgh Allergy, Asthma & Immunology Society, 2012-present
• American Thoracic Society, 2011-present

**Jessica Bon Field MD**
• American Thoracic Society, 2004-present
• American College of Chest Physicians, 2004-present
• American Society of Bone and Mineral Research, 2009-present
• Study Section Membership, VA Merit Review Panel [ENDB], ad hoc, 2015-present
• Study Section Membership, NIH: Neurological, Aging, and Musculoskeletal Epidemiology, 2016
• Editorial Board, *BMC Pulmonary*, 2016-present
• DSMB Chair, SHOP (Adiposity and Airway Inflammation in HIV-Associated Airway Disease) Data and Safety Monitoring Board, 2016-present
• Member, Educational Review Working Group, COPD Foundation, 2013-present
• Program Committee, Clinical Problems Assembly, American Thoracic Society, 2016-present
Meghan Fitzpatrick MD
- American Thoracic Society, 2009-present
- American College of Chest Physicians, 2011-present

M. Patricia George MD
- American Thoracic Society, 2005-present
- American College of Chest Physicians, 2009-present
- Pulmonary Hypertension Association, 2009-present
- Fellow, Pulmonary Vascular Research Institute, 2009-present
- Co-Founder and President, Team PHenomenal Hope, 2012-present

Kevin Gibson MD
- Admissions Committee, University of Pittsburgh, School of Medicine, 1991-present
- Credentials Committee, University of Pittsburgh Medical Center, 1997-present
- NIH, Small Business Innovative Research Scientific Review Panel, 2004-present

Matthew Gingo MD
- American Thoracic Society, 2006-present
- American College of Chest Physicians, 2011-present

Rachel Givelber MD
- Pulmonary/Critical Care Fellowship Committee, Pulmonary Allergy and Critical Care Division, University of Pittsburgh, 2003-present
- National Board of Medical Examiners, Biostatistics and Epidemiology Task Force, 2011-present
- Fellow, American College of Chest Physicians, 1999-present
- NBME, Biostatistics and Epidemiology Committee, 2014-present

Mark T. Gladwin MD
- Elected to serve on the council of the American Society of Clinical Investigations (ASCI), 2006-present; Council, 2010-present
- Alpha Omega Alpha, 1995-present
- Fellow, American College of Physicians, 2008-present
- Society for Free Radical Biology and Medicine, 2002-present
- Editorial Board, Haematologica, 2008-present
- Editorial Board, Journal of Hematology, 2007-present
- Editorial Board, Free Radical Biology and Medicine, 2007-present
- Editorial Board, American Physiology Journal, Lung Cellular and Molecular Physiology, 2011-present

Alyssa Gregory PhD
- Senior Research Training Fellowship, American Lung Association, 2011-2013
- American Thoracic Society, 2013-present

Elena Goncharova PhD
- American Thoracic Society, 2007-present

Shikha Gupta MD
- American College of Chest Physicians, 2011-present
- American Thoracic Society, 2011-present

**Fernando Holguin MD**
- American Thoracic Society, 1996-present
- European Respiratory Society, 1999-present
- Southern Society of Clinical Investigation, 2006-present
- Fellow, ACCP (FCCP), 2012-present
- AAAI, 2012-present
- Associate Editor, *Journal of Asthma*, 2012-present

**Jeffrey Isenberg MD**
- Cancer Redox/Biology Working Group, National Cancer Institute, 2004-present
- American Society for Matrix Biology, 2006-present
- North American Vascular Biology Organization, 2007-present
- Science Award, 3rd International Role of Nitrite in Physiology, Pathophysiology and Therapeutics Meeting,
- American Heart Association, 2009-present
- Co-Chair, AHA Vascular Wall Biology Committee, 2009-present
- Chair, AHA Vascular Wall Biology Committee, 2012-present
- Graduate Faculty, University of Pittsburgh, 2012-present
- AHA Fellows Research Day Task Force, 2013-present

**Constance Jennings MD**
- Board Member, CG Jung Educational Center, 2006-present

**Bruce Johnson MD**
- Pre-transplant Candidate Selection Committee, 1995-present
- Post-transplant Immunosuppression Management Committee, 1995-present
- Institutional Review Board Committee, 2005-present

**John Kreit MD**
- Course Director, Pulmonary Section—Body Fluid Homeostasis (MS-2), 2015-present
- Lecturer, Get Ready for Residency (MS-4), 2008-present
- American Thoracic Society, 1988-present
- American College of Chest Physicians, 1988-present
- Faculty Advisor, MS-1, MS-2, MS-23, 2002-present

**David Kristo MD**
- Fellow, American College of Physicians, 1996-present
- Fellow, American College of Chest Physicians, 1995-present
- Fellow, American Academy Sleep Medicine Society, 2001-present
- American Academy Sleep Medicine Society, 1997-present

**Phillip Lamberty MD**
- Fellow, American College of Chest Physicians, 2004-present
- American Thoracic Society, 2001-present
- American Academy of Sleep Medicine, 2011-present
• Society of Critical Care Medicine, 2012-present

Janet S. Lee MD
• Respiratory Cell and Molecular Biology Assembly, American Thoracic Society, 2000-present
• Ad Hoc Reviewer, American Journal of Respiratory Critical Care Medicine, 2006-present
• Ad Hoc Reviewer, American Journal of Respiratory Cell and Molecular Biology, 2006-present
• American Heart Association Grant Reviewer, R1 & 2, Immunology and Virology Committee, 2009-present
• ATS Research Advisory Committee, 2010-present
• Advisory Board, ATS Research Quarterly Newsletter, 2011-present
• Membership Committee, American Thoracic Society, 2013-present
• Vice Chair, Membership Committee, American Thoracic Society, 2015-present
• Ad hoc Reviewer, Innate Immunity and Inflammation, NIH Standing Study Section, Pentagon City, Arlington, VA, 2015
• Standing Section Member, Innate Immunity and Inflammation, NIH Study Section, 2015-present

Elizabeth Lendermon MD
• International Society of Heart & Lung Transplantation, 2009-present
• American Thoracic Society, 2009-present

Kathleen Lindell RN PhD
• Pennsylvania Thoracic Society Planning Committee, 2003-present
• Inaugural Chair, American Thoracic Society Patient & Family Education Committee, 2010-present
• ATS Presidential Commission on Patient Involvement, 2011-present
• ATS Planning & Evaluation Committee, 2014-present
• Co-Chair, ATS Nursing Assembly Clinical Research Coordinator Working Group, 2014-present
• Invited Member, AJRCCM Editorial Board, 2012-present
• Respiratory Nursing Society Section Editor, Core Curriculum, 1999-present
• Strategic Advisory Board, Coalition for Pulmonary Fibrosis, 2001-present
• First National Summit of the Nursing Leadership Task Force on Tobacco Control, AHRQ Headquarters, Washington, DC, 2004-present
• Medical Advisory Board, Pulmonary Fibrosis Foundation, 2010-present
• Respiratory Nursing Society, 1993-present; Section Editor, Core Curriculum, 1999-present
• American Academy of Nursing, 2007-present
• Pulmonary Fibrosis Foundation, 2013-present; Invited Member, Medical Advisory Board, 2010-present; Invited Member, Board of Directors, 2014-present; Chair, Patient Related Activities, Board of Directors, 2015-present
• Respirare, Invited Member of Scientific Committee, 2013-present

Yuan Liu PhD
• Editorial Board, Austin Journal of Vascular Medicine, 2014-present
• Ad hoc reviewer, American Journal of Respiratory Cell and Molecular Biology, 2014-present
• Ad hoc reviewer, The Journal of Anesthesia and Clinical Research, 2014-present
• Ad hoc reviewer, The Journal of Allergy and Therapy, 2014-present
• Ad hoc reviewer, The Journal of Biological Chemistry, 2014-present
• Ad hoc reviewer, The American Journal of Physiology, 2016-present
• Ad hoc reviewer, Journal of Clinical Investigation, 2016-present
Rama Mallampalli MD
- Editorial Board, Journal of Biological Chemistry, 2006-present
- Editorial Advisory Panel, Biochemical Journal, 2007-present
- Editorial Board, Journal of Epithelial Biology & Pharmacology, 2008-present
- Editorial Board, International Archives of Biosciences, 2001-present
- Editorial Board, American Journal of Physiology (LCMP), 2009-present
- Editorial Board, Journal of Epithelial Biology & Pharmacology, 2008-present
- Editorial Board, International Archives of Biosciences, 2001-present
- ALA/ATS National Research Grant Review Committee, Lung Study Section B, 2000-present

Nikolaus Maniatis MD
- Reviewer, American Journal of Physiology, Lung Cellular and Molecular Physiology, 2008-present

Jennifer McComb MD
- American College of Physicians, 2005-present
- Society for Critical Care Medicine, 2005-present
- Pennsylvania Medical Society, 2005-present
- American Thoracic Society, 2007-present
- American College of Chest Physicians, 2008-present

John F. McDyer MD
- Editorial Board, Transplant Infectious Diseases, 2006-present
- American Association of Immunologists, 2003-present
- International Society of Heart and Lung Transplantation, 2003-present
- American Thoracic Society, 2003-present

Bryan McVerry MD
- Reviewer, Microvascular Research, 2005-present
- Reviewer, American Journal of Respiratory Cell and Molecular Biology, 2006-present
- Reviewer, Journal of Applied Physiology, 2007-present
- Reviewer, American Journal of Physiology, Lung Cellular Molecular Physiology, 2007-present
- Reviewer, American Journal of Physiology, Renal Physiology, 2008-present
- Reviewer, Nature Reviews Drug Discovery, 2008-present
- Reviewer, American Journal of Respiratory and Critical Care Medicine, 2009-present
- International Award Committee, ATS Critical Care Assembly, 2003-present
- American Medical Association, 1997-present
- Society of Critical Care Medicine, 2001-present
- American Thoracic Society, 2002-present
- American College of Chest Physicians, 2003-present
- Allegheny County Medical Society, 2005-present
- Pennsylvania Medical Society, 2005-present
- American Physiological Society, 2010-present
- Association of Pulmonary and Critical Care Medicine Program Directors, 2014-present
Ana Mora MD
- Society for Free Radical Biology and Medicine, 2013-present
- American Thoracic Society, 2002-present
- Planning committee member, RCMB assembly, ATS, 2014-present
- Ad hoc Reviewer NHLBI RFA Aging Lung, 2015-present
- Member Editorial Board, AJP–Lung Cellular and Molecular Physiology, 2015-present

Matthew Morrell MD
- International Society of Heart and Lung Transplantation, 2007-present
- American Thoracic Society, 2014-present
- Pulmonary Transplant Fellowship Director, 2009-present

Alison Morris MD
- Reviewer, AIDS, 2004-present
- Reviewer, American Journal of Respiratory and Critical Care Medicine, 2008-present
- Reviewer, American Journal of Respiratory Cell and Molecular Biology, 2007-present
- Reviewer, CHEST, 2006-present
- Reviewer, Clinical Infectious Diseases, 2007-present
- Reviewer, Emerging Infectious Diseases, 2005-present
- Reviewer, Journal of the Acquired Immunodeficiency Syndrome, 2006-present
- Reviewer, Intensive Care Medicine, 2006-present
- Reviewer, Medical Science Monitor, 2005-present
- Reviewer, Thorax, 2009-present
- Long-range Planning Committee, MTPI Assembly, ATS, 2003-present
- Program Committee, MTPI Assembly, ATS, 2004-present
- Nominating Committee, MTPI Assembly, ATS, 2007-present
- American Thoracic Society, 1998-present
- American College of Chest Physicians, 1999-present
- Chair, Department of Medicine Research Day, 2016-present
- Director, Department of Medicine Grant Writing Workshop, 2015-present
- Applicant Interviewer, International Scholars Program, Department of Medicine, 2015-present

Michael Myerburg MD
- The Salt and Water Club, 2008-present
- American Thoracic Society, 2004-present
- American College of Chest Physicians, 2006-present
- Ad-hoc Reviewer, The Journal of Biological Chemistry, 2008-present
- Ad-hoc Reviewer, The American Journal of Physiology, 2008-present
- Ad-hoc Reviewer, American Journal of Respiratory Cell and Molecular Biology, 2008-present

Seyed Mehti Nouraie PhD
- American Association for Cancer Research, 2007-present
- American Society of Hematology, 2010-present
- Reviewer, Alimentary Pharmacology & Therapeutics Journal, 2009-present
- Reviewer and Editorial Board, Digestive Disease and Sciences, 2013-Present
- Reviewer, Mediterranean Journal of Hematology and Infectious Diseases, 2012-present
- Reviewer, *The Lancet Infectious Diseases*, 2014-present
- Reviewer, The Lancet Haematology, 2015-present
- Reviewer, *Turkish Journal of Gastroenterology*, 2015-present
- Reviewer, *EBioMedicine*, 2015-present

**Toru Nyunoya MD**
- American Thoracic Society, 2001-present
- American Medical Association, 2001-present
- Ad hoc grant reviewer, VASN 18 New Investigator Grant Program, 2014-present

**Christopher O’Donnell PhD**
- Programming Committee, Respiratory, Neurobiology, and Sleep Section, American Thoracic Society, 2003-present
- Chair, NIH study section (RIBT), 2008-present
- Associate Editor, *Journal of Applied Physiology*, 2005-present
- Associate Editor, *Obesity*, 2008-present

**Timothy Oriss PhD**
- American Association of Immunologists, 1996-present
- American Thoracic Society, 2002-present

**Luis Ortiz MD**
- Advisory Board on Asbestos, U.S. Environmental Protection Agency, 2008-present

**Sanjay R. Patel MD**
- American Thoracic Society, 2002-present
- ATS Planning Committee Member (SRN Section), 2010-present
- ATS Executive Committee Member (SRN Section), 2012-present
- ATS Quality Improvement and Implementation Committee, 2016-present
- ATS Assembly Chair Elect (SRN Section), 2016-present
- American Academy of Sleep Medicine (AASM), 2002-present
- Chair, AASM Young Investigator Research Forum, 2013-2015
- AASM Positive Airway Pressure Guideline Taskforce, 2013-present
- Sleep Research Society, 2008-present
- The Obesity Society, 2014-present
- Editorial Board, *Sleep;* Deputy Editor, 2012-present
- Editorial Board, *Sleep Health*, 2014-present
- Editorial Board, *CHEST*, 2015-present
- NIH Study Section (MESH) Standing Member, 2012-2016
- International Scientific Advisory Committee, Canadian Sleep and Circadian Network, 2016-present

**Andrej Petrov MD**
- American Academy of Allergy, Asthma and Immunology, 2005-present
- Super-delegate, Mid-Atlantic Region House of Delegates, American College of Allergy, Asthma and Immunology, 2015
Joseph Pilewski
- Lung Transplant Candidate Selection Committee, 1996-present
- Pulmonary Division Fellowship Committee, 1999-present
- Steering Committee, Cystic Fibrosis Research Development Center, 1999-present
- Grant Reviewer, University of Pittsburgh Competitive Medical Research Fund, 1998-present
- Steering Committee, Therapeutics Development Network, 2002-present
- Therapeutics Development Network Protocol Review Committee, 2002-present
- Vice Chairman, Therapeutics Development Network Steering Committee, 2008-present
- Ad Hoc Reviewer, *Physiologic Reviews*, 1999-present
- Ad Hoc Reviewer, *Journal of Biological Chemistry*, 1999-present
- Ad Hoc Reviewer, *Gene Therapy*, 1999-present
- Ad Hoc Reviewer, *Journal of Allergy and Clinical Immunology, 1999-present
- Board of Directors, Cystic Fibrosis Foundation, Western Pennsylvania Chapter, 2006-present

Matthew Pipeling, MD
- International Society of Heart & Lung Transplantation, 2009-present

Iulia Popescu, PhD
- American Society of Transplantation, 2006-present
- American Immunology Association, 2007-present
- European Association for Cancer Research, 1998-present
- Federation of European Biochemical Societies, 1990-present
- Romanian Society of Immunology, 1986-present

Ronald Poropatich MD
- Fellow, American College of Physicians, 1985-present
- Fellow, American College of Chest Physicians, 1994-present
- American Telemedicine Association, 1995-present
- Registered Microbiologist, 1978-present
- D.C. Thoracic Society, 1989-present
- Editorial Board (Associate Editor), *Telemedicine Journal*, 1996-present

Anuradha Ray PhD
- American Association of Immunologists, 1995-present
- American Association for the Advancement of Science, 1990-present
- American Thoracic Society, 1997-present
- New York Academy of Sciences, 1999-present
• Editorial Board, *Mucosal Immunology*, 2010-present
• Ad Hoc Member, multiple Study Sections for NIH Institutes NIAID, NHLBI, NINDS, 2003-present
• Invited Reviewer, NIH Innovator Grants, 2016-present
• Reviewer, *Immunity*, 1993-present
• Reviewer, *Journal of Experimental Medicine*, 1993-present
• Reviewer, *Nature Immunology*, 1993-present
• Reviewer, *Nature Medicine*, 1993-present
• Reviewer, *Journal of Immunology*, 1993-present
• Reviewer, *Immunology Today*, 1993-present
• Reviewer, *Trends in Cell Biology*, 1993-present
• Reviewer, *Journal of Clinical Investigation*, 1993-present
• Reviewer, *Journal of Biological Chemistry*, 1993-present
• Reviewer, *Molecular and Cellular Biology*, 1993-present
• Reviewer, *Cancer Research*, 1993-present
• Reviewer, *American Journal of Respiratory Cell and Molecular Biology*, 1993-present
• Reviewer, *American Journal Physiology–Lung Cellular and Molecular Physiology*, 1993-present
• External Reviewer, International Human Frontiers Science Program, 1996-present

**Prabir Ray PhD**

• American Association of Immunologists, 1995-present
• American Thoracic Society, 1999-present
• NIH/NHLBI PO1 grant review, 2015-present
• Reviewer, *Journal of Clinical Investigation*, 1993-present
• Reviewer, *Journal of Biological Chemistry*, 1993-present
• Reviewer, *Journal of Immunology*, 1993-present
• Reviewer, *Circulation*, 1993-present
• Reviewer, *Science*, 2008-present

**Raju Reddy MD**

• American Medical Association, 1995-present
• American Thoracic Society, 1998-present
• American Association of Allergy, Asthma, and Immunology, 2009-present
• FASEB, 2013-present
• Associate Editor, *Gene Therapy and Molecular Biology*, 2009-present
• Academic Editor, PLoS ONE, 2001-present
• Associate Editor, *Journal of Pharmaceutical Sciences and Pharmacology*, 2013-present
• Editorial Board, *American Journal of Pathology*, 2013-present
• Editorial Board, *Journal of Lung, Pulmonary & Respiratory Research*, 2014-present
• Ad Hoc Reviewer, *Journal of Biological Chemistry*; PLoS ONE; *American Journal of Pathology*; *PPAR Research*; *American Journal of Physiology, Lung Cellular and Molecular Physiology*; *FASEB J*; *Experimental Lung Research*; 2015-present

http://www.dom.pitt.edu/paccm
Michael Risbano MD MS
- American College of Chest Physicians, 2006-present
- American Thoracic Society, 2006-present
- Member, PH Clinicians and Researchers, Pulmonary Hypertension Association, 2010-present

Belinda Rivera-Lebron MD MSCE
- American Thoracic Society, 2009-present
- Society of Critical Care Medicine, 2010-present
- American College of Chest Physicians, 2011-present
- International Society for Heart and Lung Transplant, 2012-present
- Pulmonary Hypertension Association, 2013-present

Keven Mara Robinson MD
- American Thoracic Society, 2010-present
- American Society for Microbiology, 2014-2015

Mauricio Rojas MD
- American Association for the Advancement of Science, 1997-present
- New York Academy of Sciences, 2002-present
- American Association of Immunologists, 2002-present
- American Thoracic Society, 2002-present
- International Society of Stem Cell Research, 2004-present
- Southern Society of Clinical Investigation, 2007-present
- The Science Advisory Board, 2004-present
- Grant Reviewer, NIH Special panel RFA-HL-16-003, Collaborative Projects to Accelerate Research in Organ Fibrosis (R01), 2016
- Grant Reviewer, Kentucky Science and Engineering Foundation, 2016
- Grant Reviewer, The Netherlands Organisation for Health Research and Development, 2016
- Grant Reviewer, The Lung Foundation Netherlands, 2016

Frank Sciurba MD
- Fellow, American College of Chest Physicians, 1992-present
- American Thoracic Society, 1987-present
- Pennsylvania Thoracic Society, 1987-present
- Editorial Board, Respiration, 2005-present
- Editorial Board, American Journal of Respiratory and Critical Care Medicine, 2010-present
- National Institutes of Health Steering Committee for Lung Volume Reduction Clinical Trial Chair, Exercise Testing Sub-Committee, 1996-present
- National Emphysema Treatment Trial (NETT) Publications and Presentations Committee, 1999-present
- COPD-Clinical Research Network Steering Committee, 2004-present
- Lung Tissue Research Consortium (LTRC) Steering Committee, 2004-present
- Long-Term Oxygen Treatment Trial (LOTT) Steering Committee, 2007-present
- Molecular Phenotyping (MP7) of Lung Disease Steering Committee, 2008-present
- Fellow, American College of Chest Physicians (ACCP), 1992-present
- Function and Rehabilitation Network Steering Committee Vice Chair, ACCP Pulmonary Physiology, 2007-present
Faraaz Ali Shah MD
- American Thoracic Society, 2011-present
- Association of Physicians of Pakistani Descent of North America, 2011-present

Steven D. Shapiro MD
- Fellow, American College of Chest Physicians, 1992-present
- Clinical Problems Program Committee, American Thoracic Society, 2003-present
- Scientific Committee, Transatlantic Airway Conference, 2005-present
- Ad Hoc Committee, National Heart Lung and Blood Advisory, 2007-present
- Clinical Grant Review Committee, Cystic Fibrosis Foundation, 2002-present
- Scholarship Committee, Claire B. Morrison Fund, The Pittsburgh Foundation, 2010-present
- Editorial Board, *Journal of Chronic Obstructive Pulmonary Disease*, 2004-present
- NIH, NIEHS Center for Environmental Genetics, University of Cincinnati, 2001-present
- Pulmonary Science Advisory Board, Bohringer-Ingelheim, 2000-present

Ronald Stiller MD
- Fellow, American College of Chest Physicians, 1990-present

Dianne Strollo MD
- American College of Chest Physicians, Fellow, 1995-present
- American Board of Radiology (Volunteer), 2005-present
- Maintenance of Certification (MOC) Section Head, 2011-present

Patrick Strollo MD
- National Football League Cardiovascular Health Committee (Sleep Medicine consultant), 2005-present
- Castle Connolly's Best Doctors (Pulmonary), 2007-present
- Fellow, American College of Chest Physicians, 1998-present
- Fellow, American Sleep Disorders Association, 1991-present

John Tedrow MD
- American Thoracic Society, 2006-present
- American College of Chest Physicians, 2013-present

Jesus Tejero PhD
- Spanish Society for Biochemistry and Molecular Biology, 2000-present
- Society for Free Radical Biology and Medicine, 2010-present

Kristen Veraldi MD PhD
- Fellow, American College of Chest Physicians, 2008-present
- Society of Critical Care Medicine, 2007-present
- American Thoracic Society, 2007-present
• Fellow, American College of Chest Physicians, 2008-present
• Ad-hoc Reviewer, The American Journal of Respiratory Cell and Molecular Biology, 2009-present
• Ad-hoc Reviewer, The Open Rheumatology Journal, 2009-present
• Ad-hoc Reviewer, PloS ONE, 2001-present

Nathaniel Weathington MD
• American Thoracic Society, 2006-present
• American Association of Immunologists, 2003-present
• ATS Assembly on Allergy, Inflammation and Immunology, 2010-present

Joel Weinberg MD
• Allegheny County Medical Society, 1981-present
• Pennsylvania Medical Society, 1981-present
• American Medical Association, 1981-present
• American College of Chest Physicians, 1983-present
• American Thoracic Society, 1983-present

Sally Wenzel MD
• American College of Chest Physicians, 1992-present
• American Thoracic Society, 1987-present
• American College of Asthma, Allergy & Immunology, 1992-present
• American Academy of Asthma, Allergy & Immunology, 1994-present
• European Respiratory Society, 1995-present
• Western Society for Clinical Investigation, 2001-present
• Collegium Internationale Allergolicum, 2004-present
• Reviewer, American Journal of Respiratory & Critical Care Medicine, 1988-present
• Reviewer, CHEST, 1990-present
• Reviewer, Journal of Allergy & Clinical Immunology, 1990-present
• Reviewer, European Respiratory Journal, 1999-present
• Reviewer, International Archives of Allergy and Immunology, 1999-present
• Reviewer, Journal of Clinical Investigation, 2000-present
• Reviewer, New England Journal of Medicine, 2000-present
• Reviewer, Annals of Internal Medicine, 1995-present
• Reviewer, Journal of Immunology, 1997-present
• Reviewer, Clinical and Experimental Allergy, 2000-present
• Editorial Board, Clinical and Experimental Allergy, 2000-present
• Contributing Editor, Annals of Asthma, Allergy and Immunology, 1998-present
• Deputy Editor, American Journal of Respiratory and Critical Care Medicine, 2004-present
• Long-Range Planning Committee, Section on Allergy, Immunology & Inflammation, American Thoracic Society, 1995-present
• Reviewer, Veterans Administration Grants, 1992-present
• Global Initiative for Asthma (GINA) Scientific Counsel, 2003-present
David Wilson MD
- American College of Physicians 1981-present, (Fellow, 1989)
- American Thoracic Society, 1983-present
- American College of Chest Physicians, 1983-present (Fellow, 1988)
- American College of Environmental and Occupational Medicine, 1995-present
- Reviewer, American Journal of Respiratory and Critical Care Medicine, 2007-present
- Reviewer, CHEST, 1989-present
- Physicians for Social Responsibility, 1980-present

Yingze Zhang PhD
- American Thoracic Society, 2015-present
- Steering Committee, NHLBI GRADS study, 2012-present
- Executive Committee, NHLBI GRADS study, 2012-present

Jing Zhao PhD
- American Thoracic Society, 2004-present
- Society of Toxicology, 2005-present
- American Heart Association, 2006-present

Yutong Zhao PhD
- American Federation for Medical Research Society, 2006-present
- American Thoracic Society, 2006-present
- Central Society of Clinical Research, 2006-present
- American Physiology Society, 2013-present
- American Society for Clinical Investigation, 2014-present
- Reviewer, Expert Opinion on Therapeutic Targets, 2007-present
- Reviewer, Cytokine, 2009-present
- Reviewer, Life Science, 2009-present
- Reviewer, Microvascular Research, 2008-present
- Reviewer, American Journal of Physiology, Heart and Circulatory Physiology, 2009-present
- Reviewer, American Journal of Physiology, Lung Cellular and Molecular Physiology, 2012-present
- Reviewer, PLOS One, 2012-present
- Reviewer, Europe Journal of Pharmacology, 2010-present
- Reviewer, Journal of Receptor, Ligand and Channel Research, 2010-present
- Reviewer, Current Medicinal Chemistry, 2011-present

Xiuxia Zhou PhD
- American Society for Biochemistry and Molecular Biology, 2003–present
- American Thoracic Society, 2008–present

Chunbin Zou PhD
- American Society for Biochemistry and Molecular Biology, 2004-present
- American Thoracic Society, 2012-present
- American Heart Association, 2012-present
## GRANTS AND CONTRACTS AWARDED

<table>
<thead>
<tr>
<th>PUBLIC HEALTH SERVICE</th>
<th>DIRECT COSTS</th>
<th>INDIRECT COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BARBASH, IAN</td>
<td>$13,182</td>
<td>$0</td>
</tr>
<tr>
<td>CHANDRA, DIVAY</td>
<td>$122,511</td>
<td>$9,681</td>
</tr>
<tr>
<td>CHEN, BEIBEI</td>
<td>$50,000</td>
<td>$27,000</td>
</tr>
<tr>
<td>CHEN, BEIBEI</td>
<td>$215,824</td>
<td>$116,544</td>
</tr>
<tr>
<td>CORCORAN, TIMOTHY E.</td>
<td>$215,056</td>
<td>$104,060</td>
</tr>
<tr>
<td>CORCORAN, TIMOTHY E.</td>
<td>$73,596</td>
<td>$34,472</td>
</tr>
<tr>
<td>DONAHOE, MICHAEL P.</td>
<td>$88,312</td>
<td>$47,688</td>
</tr>
<tr>
<td>DONAHOE, MICHAEL P.</td>
<td>$36,221</td>
<td>$18,654</td>
</tr>
<tr>
<td>FIELD, JESSICA M.</td>
<td>$54,983</td>
<td>$29,691</td>
</tr>
<tr>
<td>GEORGE, MARJORIE P.</td>
<td>$60,711</td>
<td>$4,832</td>
</tr>
<tr>
<td>GIBSON, KEVIN F.</td>
<td>$20,000</td>
<td>$5,000</td>
</tr>
<tr>
<td>GINGO, MATTHEW</td>
<td>$122,625</td>
<td>$9,810</td>
</tr>
<tr>
<td>GINGO, MATTHEW</td>
<td>$415,518</td>
<td>$189,980</td>
</tr>
<tr>
<td>GLADWIN, MARK</td>
<td>$158,514</td>
<td>$85,597</td>
</tr>
</tbody>
</table>

Department of Medicine
http://www.dom.pitt.edu/paccm
<table>
<thead>
<tr>
<th>Name</th>
<th>Project Description</th>
<th>Funding Agency</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>GLADWIN, MARK</td>
<td>Vascular Subphenotypes of Lung Disease</td>
<td>NHLBI</td>
<td>$86,977</td>
<td>$44,793</td>
</tr>
<tr>
<td>HOLGUIN, FERNANDO</td>
<td>Asthamnet: Phenotypic Influences on Asthma Treatments - CRSDC</td>
<td>NHLBI</td>
<td>$26,570</td>
<td>$9,968</td>
</tr>
<tr>
<td>HOLGUIN, FERNANDO</td>
<td>Validating GIS-Based Methods to Address Spatial Uncertainty in Clinical Trials</td>
<td>NHLBI</td>
<td>$33,265</td>
<td>$17,131</td>
</tr>
<tr>
<td>HOLGUIN, FERNANDO</td>
<td>Redox-Derived Pulmonary Anti-Inflammatory Mediators</td>
<td>NHLBI</td>
<td>$53,430</td>
<td>$27,516</td>
</tr>
<tr>
<td>HOLGUIN, FERNANDO</td>
<td>University of Pittsburgh Clinical and Translational Science Institute (MUH-CTRC)</td>
<td>NCATS</td>
<td>$56,273</td>
<td>$28,981</td>
</tr>
<tr>
<td>HOLGUIN, FERNANDO</td>
<td>Healthy Learning, Healthy Living, Healthy Lives</td>
<td>NIMHD</td>
<td>$9,111</td>
<td>$4,904</td>
</tr>
<tr>
<td>KASS, DANIEL J.</td>
<td>Twist1 Subphenotypes and Pulmonary Fibrosis</td>
<td>NHLBI</td>
<td>$239,302</td>
<td>$129,222</td>
</tr>
<tr>
<td>KASS, DANIEL J.</td>
<td>Rituximab Therapy in Patients with IPF</td>
<td>UNIVERSITY OF ALABAMA AT BIRMINGHAM/ NIH</td>
<td>$34,860</td>
<td>$18,824</td>
</tr>
<tr>
<td>KASS, DANIEL J.</td>
<td>Rituximab Therapy in Patients with IPF - Capitation</td>
<td>UNIVERSITY OF ALABAMA AT BIRMINGHAM/ NHLBI</td>
<td>$63,545</td>
<td>$34,315</td>
</tr>
<tr>
<td>KOCH, CARL</td>
<td>The Oral Microbiome and Enterosalivary Circulation of Nitric Oxide in HIV</td>
<td>NHLBI</td>
<td>$66,566</td>
<td>$0</td>
</tr>
<tr>
<td>LEE, JANET S.</td>
<td>Red Cell Transfusion: Modifier of Lung and Systemic Inflammatory Responses</td>
<td>NHLBI</td>
<td>$260,157</td>
<td>$132,646</td>
</tr>
<tr>
<td>LEE, JANET S.</td>
<td>Storage Lesion in Banked Blood Due to Disruption of Nitric Oxide Hemostasis</td>
<td>NHLBI</td>
<td>$21,961</td>
<td>$11,859</td>
</tr>
<tr>
<td>LEE, JANET S.</td>
<td>Enhancing Neutrophil Responses to Counter MDR Gram Negative Bacterial Pneumonia</td>
<td>NIAID</td>
<td>$144,671</td>
<td>$67,234</td>
</tr>
<tr>
<td>MALLAMPALLI, RAMA</td>
<td>Regulation of F Box Proteins in Acute Lung Injury</td>
<td>NHLBI</td>
<td>$246,250</td>
<td>$132,975</td>
</tr>
<tr>
<td>MALLAMPALLI, RAMA</td>
<td>Cardiolipin as a Novel Mediator of Acute Lung Injury</td>
<td>NHLBI</td>
<td>$335,329</td>
<td>$180,538</td>
</tr>
<tr>
<td>Name</td>
<td>Project Description</td>
<td>Sponsor</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-------------------------------------------------------------------------------------</td>
<td>---------------</td>
<td>---------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Mallampalli, Rama</td>
<td>Translational Training Program in Pulmonary Biology and Medicine</td>
<td>NHLBI</td>
<td>$613,196</td>
<td>$41,141</td>
</tr>
<tr>
<td>Mallampalli, Rama</td>
<td>A New Genus of Ubiquitin-Based Anti-Inflammatories for COPD</td>
<td>NHLBI</td>
<td>$974,236</td>
<td>$526,087</td>
</tr>
<tr>
<td>Mallampalli, Rama</td>
<td>Mechanisms of Lung Homeostasis by F Box Proteins</td>
<td>NHLBI</td>
<td>$268,922</td>
<td>$134,610</td>
</tr>
<tr>
<td>Mallampalli, Rama</td>
<td>Signaling Mechanisms by Which Mitochondria Regulates Fibrosis in the Lung</td>
<td>NHLBI</td>
<td>$3,939</td>
<td>$2,127</td>
</tr>
<tr>
<td>Mallampalli, Rama</td>
<td>F Box-Induced Acute Lung Injury and Parkin</td>
<td>NHLBI</td>
<td>$69,400</td>
<td>$37,476</td>
</tr>
<tr>
<td>Mcdyer, John F.</td>
<td>Immune Mechanisms of HIV-Associated COPD</td>
<td>Johns Hopkins University/NHLBI</td>
<td>$202,979</td>
<td>$98,608</td>
</tr>
<tr>
<td>Mcdyer, John F.</td>
<td>Clinical Risk Factors for Primary Graft Dysfunction</td>
<td>University of Pennsylvania/NHLBI</td>
<td>$20,000</td>
<td>$10,800</td>
</tr>
<tr>
<td>Morris, Alison</td>
<td>Vascular Subphenotypes of Lung Disease - Core C</td>
<td>NHLBI</td>
<td>$264,268</td>
<td>$136,309</td>
</tr>
<tr>
<td>Morris, Alison</td>
<td>Benefits and Harms of Lung Cancer Screening in HIV Infection</td>
<td>University of Washington/NCI</td>
<td>$12,610</td>
<td>$6,809</td>
</tr>
<tr>
<td>Morris, Alison</td>
<td>Translational Evaluation of Aging, Inflammation, and HIV in Lung Dysfunction</td>
<td>NHLBI</td>
<td>$460,635</td>
<td>$128,298</td>
</tr>
<tr>
<td>Morris, Alison</td>
<td>University of Pittsburgh Multicenter AIDS Cohort Study (MACS)</td>
<td>NIAID</td>
<td>$1,144</td>
<td>$618</td>
</tr>
<tr>
<td>Morris, Alison</td>
<td>Longitudinal Evaluation of HIV-Associated Lung Disease Phenotypes</td>
<td>NHLBI</td>
<td>$498,914</td>
<td>$121,820</td>
</tr>
<tr>
<td>Morris, Alison</td>
<td>Anti-Influenza Hyperimmune Intravenous Immunoglobulin Clinical Outcome Study</td>
<td>Institute for Clinical Research/NIAID</td>
<td>$147,357</td>
<td>$79,573</td>
</tr>
<tr>
<td>Morris, Alison</td>
<td>Sarcoidosis and A1AT Genomics and Informatics Center-Administrative Supplement</td>
<td>NHLBI</td>
<td>$49,061</td>
<td>$25,017</td>
</tr>
<tr>
<td>Morris, Alison</td>
<td>Mentoring and Patient-Oriented Research in HIV Obstructive Lung Disease</td>
<td>NHLBI</td>
<td>$99,461</td>
<td>$7,957</td>
</tr>
<tr>
<td>Project Description</td>
<td>Funding Agency</td>
<td>Total Costs</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------------</td>
<td>---------------</td>
<td>-------------</td>
<td>--------------</td>
<td>----------------</td>
</tr>
<tr>
<td>TH2 INFLAMMATION PROMOTES AIRWAY SURFACE LIQUID DEHYDRATION</td>
<td>NHLBI</td>
<td>$250,000</td>
<td>$128,750</td>
<td></td>
</tr>
<tr>
<td>NITRITE HYPOXIA INCREASE MITOCHONDRIAL BIogenesis and Insulin Sensitivity</td>
<td>NHLBI</td>
<td>$200,951</td>
<td>$108,514</td>
<td></td>
</tr>
<tr>
<td>CARDIOLIPIN AS A NOVEL MEDIATOR OF ACUTE LUNG INJURY - CORE C</td>
<td>NHLBI</td>
<td>$137,422</td>
<td>$74,208</td>
<td></td>
</tr>
<tr>
<td>ANTIDOTE FOR INHALED CO POISONING BASED ON MUTATIONALLY ENGINEERED NEUROGLOBIN</td>
<td>NHLBI</td>
<td>$21,509</td>
<td>$11,615</td>
<td></td>
</tr>
<tr>
<td>IMMUNE AIRWAY - EPITHELIAL INTERACTIONS IN STEROID-REFRACTORY SEVERE ASTHMA - CORE B</td>
<td>NIAID</td>
<td>$263,027</td>
<td>$142,035</td>
<td></td>
</tr>
<tr>
<td>MENTORED PATIENT ORIENTED RESEARCH IN SLEEP AND METABOLIC DISEASE</td>
<td>NHLBI</td>
<td>$97,918</td>
<td>$7,834</td>
<td></td>
</tr>
<tr>
<td>OBSTRUCTIVE SLEEP APNEA INCREASES CARDIOVASCULAR RISK IN TYPE 2 DIABETES</td>
<td>BETH ISRAEL/ NHLBI</td>
<td>$135,581</td>
<td>$29,354</td>
<td></td>
</tr>
<tr>
<td>BASIC AND TRANSLATIONAL STUDIES OF CYSTIC FIBROSIS - CORE B</td>
<td>NIDDK</td>
<td>$44,369</td>
<td>$23,960</td>
<td></td>
</tr>
<tr>
<td>REGULATION OF ALVEOLAR HOMEOSTASIS IN ACUTE LUNG INJURY</td>
<td>NHLBI</td>
<td>$4,526</td>
<td>$2,444</td>
<td></td>
</tr>
<tr>
<td>BASIC AND TRANSLATIONAL STUDIES OF CYSTIC FIBROSIS (CORE A)</td>
<td>NIDDK</td>
<td>$137,929</td>
<td>$74,282</td>
<td></td>
</tr>
<tr>
<td>GENERATION OF NOVEL HUMAN MONOCLONALS FOR LUNG DISEASE</td>
<td>NIAID</td>
<td>$4,535</td>
<td>$2,449</td>
<td></td>
</tr>
<tr>
<td>A HEALTHY LITERACY SENSITIVE DECISION AID ABOUT TRANSPANTATION FOR COPD PATIENTS</td>
<td>NHLBI</td>
<td>$57,448</td>
<td>$29,159</td>
<td></td>
</tr>
<tr>
<td>ASSESSING XENON CT IMAGING BIOMARKERS IN LUNG TRANSPLANT RECIPIENTS</td>
<td>NIBIB</td>
<td>$14,325</td>
<td>$7,736</td>
<td></td>
</tr>
<tr>
<td>MECHANISMS OF ANTIGEN INDUCED TOLERANCE IN THE LUNG</td>
<td>NIAID</td>
<td>$183,722</td>
<td>$94,643</td>
<td></td>
</tr>
<tr>
<td>Researcher</td>
<td>Title</td>
<td>Institution</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>---------------------</td>
<td>----------------------------------------------------------------------</td>
<td>-------------</td>
<td>--------------</td>
<td>----------------</td>
</tr>
<tr>
<td>RAY, ANURADHA</td>
<td>MECHANISMS OF ANTIGEN-INDUCED TOLERANCE IN THE LUNG</td>
<td>NIAID</td>
<td>$79,085</td>
<td>$41,806</td>
</tr>
<tr>
<td>RAY, ANURADHA</td>
<td>IMMUNE AIRWAY-EPITHELIAL INTERACTIONS IN STEROID-REFRACTORY SEVERE ASTHMA</td>
<td>NIAID</td>
<td>$291,566</td>
<td>$131,658</td>
</tr>
<tr>
<td>RAY, ANURADHA</td>
<td>UNDERSTANDING SEVERE ASTHMA USING AN EXPERIMENTAL MODEL</td>
<td>NHLBI</td>
<td>$235,345</td>
<td>$127,087</td>
</tr>
<tr>
<td>RAY, ANURADHA</td>
<td>T-CELLS AND P. CARINII PNEUMONIA</td>
<td>NHLBI</td>
<td>$2,270</td>
<td>$1,227</td>
</tr>
<tr>
<td>RAY, ANURADHA</td>
<td>UNDERSTANDING PROTECTIVE IMMUNOREGULATORY MECHANISMS IN THE INFANT LUNG</td>
<td>NIAID</td>
<td>$431,591</td>
<td>$148,109</td>
</tr>
<tr>
<td>RAY, PRABIR</td>
<td>CARDIOLIPIN AS A NOVEL MEDIATOR OF ACUTE LUNG INJURY - PROJECT 3</td>
<td>NHLBI</td>
<td>$279,368</td>
<td>$150,859</td>
</tr>
<tr>
<td>RAY, PRABIR</td>
<td>LUNG EPITHELIAL-IMMUNE INTERACTIONS IN RESPIRATORY VIRUS INFECTION</td>
<td>NHLBI</td>
<td>$269,051</td>
<td>$141,533</td>
</tr>
<tr>
<td>REDDY, RAJU</td>
<td>PPAR-Delta AS A NOVEL THERAPEUTIC TARGET IN ASThma</td>
<td>NIAID</td>
<td>$20,833</td>
<td>$11,250</td>
</tr>
<tr>
<td>ROJAS, MAURICIO</td>
<td>DEVELOPMENT OF ANTI-CXCR4 COMPOUNDS TO BLOCK BREAST CANCER METASTASIS</td>
<td>Emory University / NCI</td>
<td>$20,271</td>
<td>$10,440</td>
</tr>
<tr>
<td>ROJAS, MAURICIO</td>
<td>CELL THERAPY FOR THE TREATMENT OF ACUTE RESPIRATORY DISTRESS SYNDROME</td>
<td>Athersys, INC. / NIAID</td>
<td>$124,737</td>
<td>$67,358</td>
</tr>
<tr>
<td>ROJAS, MAURICIO</td>
<td>AGING OF MESENCHYMAL STEM CELLS MISSING LINK IN IPF</td>
<td>NHLBI</td>
<td>$297,168</td>
<td>$160,470</td>
</tr>
<tr>
<td>ROJAS, MAURICIO</td>
<td>THE ANTI-AGING ROLE OF KLOTHO IN SKELETAL MUSCLE REGENERATION</td>
<td>NIA</td>
<td>$1,487</td>
<td>$803</td>
</tr>
<tr>
<td>ROSE, JASON J.</td>
<td>CARBON MONOXIDE INHIBITION OF MITOCHONDRIAL FUNCTION AND EFICACY OF A NOVEL ANTIDOTAL THERAPEUTIC FOR CARBON MONOXIDE POISONING</td>
<td>NHLBI</td>
<td>$19,503</td>
<td>$0</td>
</tr>
<tr>
<td>SCHEUNEMANN, LESLIE</td>
<td>COMMUNICATING WITH SURROGATE DECISION MAKERS ABOUT INCAPACITATED ICU PATIENTS' VALUES</td>
<td>NIA</td>
<td>$64,028</td>
<td>$0</td>
</tr>
<tr>
<td>Name</td>
<td>Project Title</td>
<td>Agency</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>----------------------</td>
<td>-------------------------------------------------------------------------------</td>
<td>--------------</td>
<td>--------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Sciurba, Frank C</td>
<td>Spore in Lung Cancer Project 2: Vitamin D Modulation of Inflammation and Lung Cancer Risk</td>
<td>NCI</td>
<td>$63,701</td>
<td>$32,806</td>
</tr>
<tr>
<td>Sciurba, Frank C</td>
<td>LTRC Clinical Center (Core)</td>
<td>NHLBI</td>
<td>$38,440</td>
<td>$20,758</td>
</tr>
<tr>
<td>Sciurba, Frank C</td>
<td>CT Assessment of Lung Fissures: Anatomy and Correlated Function</td>
<td>NHLBI</td>
<td>$10,271</td>
<td>$5,546</td>
</tr>
<tr>
<td>Sciurba, Frank C</td>
<td>Long Term Oxygen Treatment Trial-CORE</td>
<td>NHLBI</td>
<td>$60,301</td>
<td>$27,856</td>
</tr>
<tr>
<td>Sciurba, Frank C</td>
<td>Network Management Core (NEMO) for the Pulmonary Trials Cooperative (PTC)</td>
<td>NHLBI</td>
<td>$112,225</td>
<td>$60,602</td>
</tr>
<tr>
<td>Sciurba, Frank C</td>
<td>Biomarkers Predictive of Lung Function in Decline in Physiologically Normal Smokers</td>
<td>NHLBI</td>
<td>$112,662</td>
<td>$60,837</td>
</tr>
<tr>
<td>Shah, Faraz Ali</td>
<td>Effect of Route of Nutritional Support on Metabolic and Inflammatory Outcomes in Sepsis</td>
<td>NIDDK</td>
<td>$66,566</td>
<td>$0</td>
</tr>
<tr>
<td>Shapiro, Steven</td>
<td>Vascular Subphenotypes of Lung Disease - Project 1</td>
<td>NHLBI</td>
<td>$288,034</td>
<td>$148,338</td>
</tr>
<tr>
<td>Strollo, Patrick J.</td>
<td>The Effect of CPAP Treatment for Obstructive Sleep Apnea</td>
<td>NIDDK</td>
<td>$10,438</td>
<td>$5,637</td>
</tr>
<tr>
<td>Strollo, Patrick J.</td>
<td>Sleep Disordered Breathing, Obesity, and Pregnancy Study</td>
<td>Magee Women's Hospital/ NHLBI</td>
<td>$16,705</td>
<td>$9,021</td>
</tr>
<tr>
<td>Strollo, Patrick J.</td>
<td>Pragmatic Trial of Behavioral Interventions for Insomnia in Hypertensive Patients</td>
<td>NHLBI</td>
<td>$22,139</td>
<td>$11,955</td>
</tr>
<tr>
<td>Tofovic, Stevan P.</td>
<td>Role of Renal Dipeptidyl Peptidase IV</td>
<td>NHLBI</td>
<td>$19,973</td>
<td>$10,286</td>
</tr>
<tr>
<td>Tofovic, Stevan P.</td>
<td>The Renal 2,3'-cAMP-Adenosine Pathway</td>
<td>NIDDK</td>
<td>$21,312</td>
<td>$10,976</td>
</tr>
<tr>
<td>Tofovic, Stevan P.</td>
<td>The Guanosine-Adenosine Mechanism</td>
<td>NHLBI</td>
<td>$23,091</td>
<td>$12,469</td>
</tr>
<tr>
<td>Principal Investigator</td>
<td>Project Title</td>
<td>Funding Agency</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>------------------------</td>
<td>-------------------------------------------------------------------------------</td>
<td>----------------</td>
<td>--------------</td>
<td>----------------</td>
</tr>
<tr>
<td>WEATHINGTON, NATHAN M.</td>
<td>CELLULAR REGULATION OF THE IL-22 RECEPTOR AND ITS IMPORTANCE IN LUNG IMMUNITY</td>
<td>NHLBI</td>
<td>$117,400</td>
<td>$9,376</td>
</tr>
<tr>
<td>WENZEL, SALLY E</td>
<td>ASTHMANET: PHENOTYPIC INFLUENCES ON ASTHMA TREATMENTS</td>
<td>NHLBI</td>
<td>$509,748</td>
<td>$143,346</td>
</tr>
<tr>
<td>WENZEL, SALLY E</td>
<td>SPLUNC1 IN SEVERE ASTHMA</td>
<td>NHLBI</td>
<td>$39,883</td>
<td>$10,737</td>
</tr>
<tr>
<td>WENZEL, SALLY E</td>
<td>SPLUNC1 IN SEVERE ASTHMA</td>
<td>NHLBI</td>
<td>$39,883</td>
<td>$10,737</td>
</tr>
<tr>
<td>WENZEL, SALLY E</td>
<td>IMMUNE AIRWAY-EPITHELIAL INTERACTIONS IN STEROID-REFRACTORY SEVERE ASTHMA - PROJECT 2</td>
<td>NIAID</td>
<td>$247,963</td>
<td>$109,240</td>
</tr>
<tr>
<td>WENZEL, SALLY E</td>
<td>CLINICAL COORDINATING CENTER FOR THE SEVERE ASTHMA RESEARCH PROGRAM (SARP)</td>
<td>PENN STATE / NHLBI</td>
<td>$22,515</td>
<td>$11,595</td>
</tr>
<tr>
<td>WENZEL, SALLY E</td>
<td>ASTHMANET: PHENOTYPIC INFLUENCES ON ASTHMA TREATMENT - STICS PROTOCOL</td>
<td>PENN STATE/ NHLBI</td>
<td>$37,023</td>
<td>$10,816</td>
</tr>
<tr>
<td>WENZEL, SALLY E</td>
<td>TOWARD PANOMIC AND PERSONALIZED ASSOCIATION STUDY OF COMPLEX DISEASES - A NEW STATISTICAL AND COMPUTATIONAL PARADIGM FOR PERSONALIZED MEDICINE</td>
<td>CARNEGIE-MELLON UNIVERSITY/ NIGMS</td>
<td>$37,209</td>
<td>$20,093</td>
</tr>
<tr>
<td>WENZEL, SALLY E</td>
<td>IMPLICATIONS AND STABILITY OF CLINICAL AND MOLECULAR PHENOTYPES OF SEVERE ASTHMA</td>
<td>NHLBI</td>
<td>$392,961</td>
<td>$168,305</td>
</tr>
<tr>
<td>WILSON, DAVID</td>
<td>SPORE IN LUNG CANCER PROJECT 3: LUNG CANCER RISK PREDICTION IN THE PITTSBURGH LUNG SCREENING STUDY</td>
<td>NCI</td>
<td>$28,137</td>
<td>$14,491</td>
</tr>
<tr>
<td>WILSON, DAVID</td>
<td>CLINICAL AND MOLECULAR PROFILES OF SMOKERS WITH SUBCLINICAL INTERSTITIAL LUNG DISEASE</td>
<td>HARVARD UNIVERSITY/ NHLBI</td>
<td>$28,796</td>
<td>$15,550</td>
</tr>
<tr>
<td>ZEMKE, ANNA</td>
<td>NEBULIZED NITRITE AS A NOVEL ANTIMICROBIAL THERAPY IN CYSTIC FIBROSIS</td>
<td>NHLBI</td>
<td>$24,955</td>
<td>$1,977</td>
</tr>
<tr>
<td>Name</td>
<td>Project Description</td>
<td>Funding Agency</td>
<td>DIRECT COSTS</td>
<td>INDIRECT COSTS</td>
</tr>
<tr>
<td>--------------------</td>
<td>-------------------------------------------------------------------------------------</td>
<td>----------------</td>
<td>--------------</td>
<td>---------------</td>
</tr>
<tr>
<td>ZHANG, YINGZE</td>
<td>VASCULAR SUBPHENOTYPES OF LUNG DISEASE (CORE D)</td>
<td>NHLBI</td>
<td>$16,064</td>
<td>$8,674</td>
</tr>
<tr>
<td>ZHAO, JING</td>
<td>REGULATION OF HISTONE ACETYLTRANSFERASE STABILITY IN SEPSIS</td>
<td>NIGMS</td>
<td>$197,500</td>
<td>$106,650</td>
</tr>
<tr>
<td>ZHAO, YUTONG</td>
<td>HIPPO SIGNALING IN PULMONARY ARTERIAL HYPERTENSION</td>
<td>NHLBI</td>
<td>$3,708</td>
<td>$2,002</td>
</tr>
<tr>
<td>ZHAO, YUTONG</td>
<td>REGULATION OF THE IL-33 RECEPTOR, ST2L, BY PROTEIN STABILITY IN SEPTIC INJURY</td>
<td>NHLBI</td>
<td>$246,303</td>
<td>$127,603</td>
</tr>
<tr>
<td>ZOU, CHUNBIN</td>
<td>EPIGENETIC REGULATION IN ACUTE LUNG INJURY</td>
<td>NHLBI</td>
<td>$250,000</td>
<td>$135,000</td>
</tr>
<tr>
<td></td>
<td>TOTAL PUBLIC HEALTH SERVICE</td>
<td></td>
<td>$13,813,632</td>
<td>$5,937,525</td>
</tr>
</tbody>
</table>

**FEDERAL**

<table>
<thead>
<tr>
<th>Name</th>
<th>Project Description</th>
<th>Funding Agency</th>
<th>DIRECT COSTS</th>
<th>INDIRECT COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORCORAN, TIMOTHY E</td>
<td>RESPIRATORY CILIARY DYSFUNCTION AND PULMONARY RISKS IN CONGENITAL HEART DISEASE PATIENTS</td>
<td>DEPARTMENT OF DEFENSE</td>
<td>$6,167</td>
<td>$3,330</td>
</tr>
<tr>
<td>O’DONNELL, CHRISTOPHER P.</td>
<td>EFFECTS OF DOSE-DEPENDENT SLEEP DISRUPTION ON FEAR AND REWARD RESPONSES</td>
<td>DEPARTMENT OF DEFENSE</td>
<td>$14,190</td>
<td>$7,313</td>
</tr>
<tr>
<td>POROPATICH, RONALD</td>
<td>TARGETED EVALUATION, ACTION AND MONITORING OF TRAUMATIC BRAIN INJURY (TEAM-TBI)</td>
<td>ARMY</td>
<td>$28,270</td>
<td>$15,323</td>
</tr>
<tr>
<td>ROJAS, MAURICIO</td>
<td>COMBINATION OF EXTRACORPOREAL LIFE SUPPORT AND MESENCHYMAL STEM CELL THERAPY FOR TREATMENT OF ARDS IN COMBAT CASUALTIES AND EVACUATION OF SERVICE MEMBERS WITH ARDS</td>
<td>ARMY</td>
<td>$2,038,393</td>
<td>$45,487</td>
</tr>
<tr>
<td>SCIURBA, FRANK C</td>
<td>BETA-BLOCKERS FOR THE PREVENTION OF ACUTE EXACERBATIONS OF COPD</td>
<td>UNIVERSITY OF ALABAMA AT BIRMINGHAM/ DOD</td>
<td>$61,186</td>
<td>$33,040</td>
</tr>
<tr>
<td></td>
<td>TOTAL FEDERAL</td>
<td></td>
<td>$2,148,206</td>
<td>$104,493</td>
</tr>
</tbody>
</table>

**STATE**

<table>
<thead>
<tr>
<th>Name</th>
<th>Project Description</th>
<th>Funding Agency</th>
<th>DIRECT COSTS</th>
<th>INDIRECT COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCIURBA, FRANK C</td>
<td>TOBACCO PHASE 12 FORMULA FUNDS</td>
<td>COMMONWEALTH OF PENNSYLVANIA</td>
<td>$235,747</td>
<td>$0</td>
</tr>
<tr>
<td></td>
<td>TOTAL STATE</td>
<td></td>
<td>$235,747</td>
<td>$0</td>
</tr>
</tbody>
</table>

Department of Medicine  
http://www.dom.pitt.edu/paccm
<table>
<thead>
<tr>
<th>SOCIETY AND FOUNDATIONS</th>
<th>DIRECT COSTS</th>
<th>INDIRECT COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACTIVATE-CF: EFFECTS OF A 6 MONTH PARTIALLY SUPERVISED CONDITIONING PROGRAM IN CF: AN INTERNATIONAL MULTI-CENTER RANDOMIZED CONTROLLED</td>
<td>$16,963</td>
<td>$1,357</td>
</tr>
<tr>
<td>CYSTIC FIBROSIS FOUNDATION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CORCORAN, TIMOTHY E.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A TWO-PART MULTICENTER PROSPECTIVE LONGITUDINAL STUDY OF CFTR-DEPENDENT DISEASE PROFILING IN DYSTIC FIBROSIS (PROSPECT)</td>
<td>$2,528</td>
<td>$202</td>
</tr>
<tr>
<td>SEATTLE CHILDRENS HOSPITAL/CYSTIC FIBROSIS FDN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CORCORAN, TIMOTHY E.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASTHMA AND AUTOIMMUNE DISEASE</td>
<td>$10,000</td>
<td>$0</td>
</tr>
<tr>
<td>BREATHE PENNSYLVANIA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DOBERER, DANIEL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A PATH TOWARD A LEARNING HEALTH SYSTEM FOR THE MID-ATLANTIC REGION</td>
<td>$4,617</td>
<td>$1,847</td>
</tr>
<tr>
<td>PATIENT-CENTERED OUTCOMES RESEARCH INSTITUTE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GIBSON, KEVIN F.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NEUTROPHIL REGULATION OF INSULIN/IG-MEDIATED CELLULAR SENESCENCE IN COPD</td>
<td>$100,000</td>
<td>$8,500</td>
</tr>
<tr>
<td>FLIGHT ATTENDANTS MEDICAL RESEARCH INSTITUTE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GREGORY, ALYSSA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>REGULATION OF NALP3 INFLAMMASOME ACTIVATION BY ENDOTOXIN</td>
<td>$50,000</td>
<td>$0</td>
</tr>
<tr>
<td>AMERICAN HEART ASSOCIATION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HAN, SEUNG HYE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>REGULATION OF THE NALP3 INFLAMMASOME BY CIGARETTE SMOKING</td>
<td>$10,000</td>
<td>$0</td>
</tr>
<tr>
<td>BREATHE PENNSYLVANIA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LEE, JANET S.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>REGULATION OF NEUTROPHILIC INFLAMMATION IN CYSTIC FIBROSIS</td>
<td>$80,000</td>
<td>$0</td>
</tr>
<tr>
<td>CYSTIC FIBROSIS FOUNDATION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LEE, JANET S.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IDENTIFYING SMALL MOLECULE COMPOUNDS THAT ENHANCE THE HOST INNATE IMMUNE RESPONSE TO INFECTION</td>
<td>$5,500</td>
<td>$0</td>
</tr>
<tr>
<td>HUGHES MEDICAL INSTITUTE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LIU, YUAN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>REGULATION OF MITOCHONDRIAL FUNCTION IN LUNG INJURY</td>
<td>$35,000</td>
<td>$3,500</td>
</tr>
<tr>
<td>AMERICAN HEART ASSOCIATION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MALLAMPALLI, RAMA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOVEL F BOX ANTI-INFLAMMATORIES FOR COPD</td>
<td>$100,000</td>
<td>$8,500</td>
</tr>
<tr>
<td>FLIGHT ATTENDANTS MEDICAL RESEARCH INSTITUTE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MALLAMPALLI, RAMA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOVEL F BOX IMMUNOMODULATOR FOR LUNG ALLOGRAFT REJECTION</td>
<td>$25,000</td>
<td>$0</td>
</tr>
<tr>
<td>HARRINGTON DISCOVERY INSTITUTE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Project Description</td>
<td>Grantor</td>
</tr>
<tr>
<td>-----------------------</td>
<td>---------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>Morrell, Matthew</td>
<td>Extracorporeal photopheresis for the management of progressive bronchiolitis obliterans syndrome in Medicare-eligible recipients of lung allografts</td>
<td>Washington University</td>
</tr>
<tr>
<td>Olonisakin, Tolani</td>
<td>Identifying small molecule compounds that enhance the host innate immune response to infection</td>
<td>Howard Hughes Foundation</td>
</tr>
<tr>
<td>Patel, Sanjay, A</td>
<td>Building a medical neighborhood for sleep medicine</td>
<td>American Sleep Medicine Foundation</td>
</tr>
<tr>
<td>Pilewski, Joseph M.</td>
<td>Strategic plan to improve lung transplant outcomes</td>
<td>Cystic Fibrosis Foundation</td>
</tr>
<tr>
<td>Pilewski, Joseph M.</td>
<td>Therapeutic development center</td>
<td>Cystic Fibrosis Foundation</td>
</tr>
<tr>
<td>Pilewski, Joseph M.</td>
<td>Human airway cell and tissue - Core A</td>
<td>Cystic Fibrosis Foundation</td>
</tr>
<tr>
<td>Pilewski, Joseph M.</td>
<td>Clinical studies - Core B</td>
<td>Cystic Fibrosis Foundation</td>
</tr>
<tr>
<td>Pilewski, Joseph M.</td>
<td>Transcriptomic responses to Kalydeco - role in predicting outcomes</td>
<td>Cystic Fibrosis Foundation</td>
</tr>
<tr>
<td>Pilewski, Joseph M.</td>
<td>TDN Committee Chair</td>
<td>Cystic Fibrosis Foundation</td>
</tr>
<tr>
<td>Pilewski, Joseph M.</td>
<td>The VX13-661-103 standardized protocol for mucociliary clearance (MCC) data processing plan</td>
<td>Vertex</td>
</tr>
<tr>
<td>Pilewski, Joseph M.</td>
<td>Genome-wide analyses of epigenetic landscape of CF airways</td>
<td>Cystic Fibrosis Foundation</td>
</tr>
<tr>
<td>Pilewski, Joseph M.</td>
<td>Development of an embedded palliative care program</td>
<td>Cystic Fibrosis Foundation</td>
</tr>
<tr>
<td>Pilewski, Joseph M.</td>
<td>Inhaled sodium nitrate as a new antibacterial therapy for cystic fibrosis</td>
<td>Cystic Fibrosis Foundation</td>
</tr>
<tr>
<td>Robinson, Keven</td>
<td>Role of IL-beta in influenza and staphylococcus aureus co-infection</td>
<td>Parker B. Francis Foundation</td>
</tr>
</tbody>
</table>

Department of Medicine  
http://www.dom.pitt.edu/paccm
<table>
<thead>
<tr>
<th>Researcher</th>
<th>Project Description</th>
<th>Funding Source</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROBINSON, KEVEN</td>
<td>Program for Adult Care in Excellence in Cystic Fibrosis</td>
<td>Cystic Fibrosis Foundation</td>
<td>$25,000</td>
<td>$2,000</td>
</tr>
<tr>
<td>SCIUURA, FRANK C</td>
<td>COPD Gene Lung Cancer Database</td>
<td>National Jewish Health</td>
<td>$1,000</td>
<td>$0</td>
</tr>
<tr>
<td>SCIUURA, FRANK C</td>
<td>Longitudinal Follow-up to Genetic Epidemiology of COPD</td>
<td>COPD Foundation</td>
<td>$10,834</td>
<td>$0</td>
</tr>
<tr>
<td>ZEMKE, ANNA</td>
<td>Nitrite Dispersal of Pseudomonas Aeruginosa Biotic Biofilms</td>
<td>Cystic Fibrosis Foundation</td>
<td>$41,667</td>
<td>$0</td>
</tr>
<tr>
<td>ZHAO, JING</td>
<td>Role of the Ubiquitin-Proteasome System in Histone Acetylation in Acute Lung Injury</td>
<td>American Lung Association</td>
<td>$40,000</td>
<td>$0</td>
</tr>
<tr>
<td>ZHAO, JING</td>
<td>FBXL19 Protects Acute Lung Injury by Degradation of ST2L</td>
<td>American Heart Association</td>
<td>$35,000</td>
<td>$3,500</td>
</tr>
<tr>
<td>ZOU, CHUNBIN</td>
<td>Histone O-Palmitoylation Regulates Inflammatory Gene Expression</td>
<td>American Heart Association</td>
<td>$70,000</td>
<td>$7,000</td>
</tr>
<tr>
<td></td>
<td><strong>Total Society and Foundations</strong></td>
<td></td>
<td><strong>$1,133,664</strong></td>
<td><strong>$52,888</strong></td>
</tr>
</tbody>
</table>

**INDUSTRY**

<table>
<thead>
<tr>
<th>Researcher</th>
<th>Project Description</th>
<th>Funding Source</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>DONAHOE, MICHAEL</td>
<td>A Randomized Double-Blind, Placebo-Controlled, Crossover to Open Label, Phase 2 Study of Aerosolized Amikacin and Fosfomycin Delivered via the Investigational EFlow® AFIS Inline System in Mechanically Ventilated Patients with Gram-Negative and/or Gram-Pos</td>
<td>Cardeas Pharma</td>
<td>$5,000</td>
<td>$0</td>
</tr>
<tr>
<td>DONAHOE, MICHAEL</td>
<td>A Randomized Double-Blind, Placebo-Controlled, Parallel Group, Phase 2 Study of Aerosolized Amikacin and Fosfomycin Delivered via the Investigational EFlow® Inline System in Mechanically Ventilated Patients with Gram-Negative</td>
<td>Cardeas Pharma</td>
<td>$49,600</td>
<td>$0</td>
</tr>
</tbody>
</table>

Department of Medicine       [http://www.dom.pitt.edu/paccm](http://www.dom.pitt.edu/paccm)
<table>
<thead>
<tr>
<th><strong>GIBSON, KEVIN</strong></th>
<th><strong>BACTERIAL PNEUMONIA (IASIS)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>DIRECT COSTS</td>
<td>INDIRECT COSTS</td>
</tr>
<tr>
<td>FG-3019</td>
<td>$40,391</td>
</tr>
</tbody>
</table>

**GIBSON, KEVIN**

A PHASE II, RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED, STUDY TO ASSESS THE EFFICACY AND SAFETY OF LEBRIKIZUMAB IN PATIENTS WITH IDIOPATHIC PULMONARY FIBROSIS

**GENENTECH, INC. (F. HOFFMAN-LA ROCHE LTD)**

$93,017 | $10,261 |

**GIBSON, KEVIN**

RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED, MULTIPLE DOSE, DOSE-ESCALATED STUDY OF STX-100 IN PATIENTS WITH IDIOPATHIC PULMONARY FIBROSIS (IPF)

**STROMEDIX, INC.**

$30,532 | $6,354 |

**GIBSON, KEVIN**

A PHASE 1B, MULTICENTER, OPEN-LABEL, STAGGERED-DOSE STUDY TO ASSESS THE SAFETY, TOLERABILITY, PHARMACOKINETICS, AND PHARMACODYNAMICS OF MULTIPLE DOSES OF CC-90001 FOR 12 WEEKS IN SUBJECTS WITH PULMONARY FIBROSIS

**CELGENE CORPORATION**

$48,105 | $8,040 |

**GIVELBER, RACHEL**

A SIX-WEEK, DOUBLE-BLIND, PLACEBO-CONTROLLED, RANDOMIZED-WITHDRAWAL, MULTICENTER STUDY OF THE SAFETY AND EFFICACY OF JZP-110 [(R)-2-AMINO-3-PHENYLPROPYLCARBAMATE HYDROCHLORIDE] IN THE TREATMENT OF EXCESSIVE

**JAZZ PHARMACEUTICALS**

$25,759 | $400 |
<table>
<thead>
<tr>
<th>SLEEPINESS IN SUBJECTS WITH OBSTRUCTIVE SLEEP APNEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>GLADWIN, MARK</td>
</tr>
<tr>
<td>INFLUENCE OF TREPРОСTENIL ON RV FUNCTION AND METABOLISM</td>
</tr>
<tr>
<td>UNITED THERAPEUTICS CORP.</td>
</tr>
<tr>
<td>DIRECT COSTS</td>
</tr>
<tr>
<td>$25,805</td>
</tr>
</tbody>
</table>

This clinical trial account is for salary support only. The effort corresponds to a Children's Hospital clinical trial - multi-center study under protocol MST-188-01.

<table>
<thead>
<tr>
<th>GLADWIN, MARK</th>
</tr>
</thead>
<tbody>
<tr>
<td>A DOSE ESCALATION STUDY TO EVALUATE THE EFFECT OF INHALED NITRITE ON CARDIOPULMONARY HEMODYNAMICS IN SUBJECTS WITH PULMONARY HYPERTENSION</td>
</tr>
<tr>
<td>MAST THERAPEUTICS</td>
</tr>
<tr>
<td>DIRECT COSTS</td>
</tr>
<tr>
<td>$73,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GLADWIN, MARK</th>
</tr>
</thead>
<tbody>
<tr>
<td>A PHASE 2, LONG-TERM SAFETY STUDY OF GS-6624 IN ADULT SUBJECTS WITH IDIOPATHIC PULMONARY FIBROSIS</td>
</tr>
<tr>
<td>AİRES PHARMACEUTICALS, INC.</td>
</tr>
<tr>
<td>DIRECT COSTS</td>
</tr>
<tr>
<td>$33,491</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>KASS, DANIEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>AN OPEN-LABEL EXTENSION TRIAL OF THE LONG-TERM SAFETY OF ORAL BIBF 1120 IN PATIENTS WITH IDIOPATHIC PULMONARY FIBROSIS (IPF)</td>
</tr>
<tr>
<td>BOEHRINGER INГELHEIM PHARMACEUTICALS, INC.</td>
</tr>
<tr>
<td>DIRECT COSTS</td>
</tr>
<tr>
<td>$7,417</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>KASS, DANIEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>A PHASE 2, RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED, MULTI-CENTER STUDY TO ASSESS THE EFFICACY AND SAFETY OF GS-6624 IN SUBJECTS WITH IDIOPATHIC PULMONARY FIBROSIS (RAINIER)</td>
</tr>
<tr>
<td>GILEAD SCIENCES</td>
</tr>
<tr>
<td>DIRECT COSTS</td>
</tr>
<tr>
<td>$9,609</td>
</tr>
<tr>
<td>Name</td>
</tr>
<tr>
<td>--------------------</td>
</tr>
<tr>
<td>MCDYER, JOHN F.</td>
</tr>
<tr>
<td>PETROV, ANDREJ</td>
</tr>
<tr>
<td>RISBANO, MICHAEL</td>
</tr>
<tr>
<td>RISBANO, MICHAEL G.</td>
</tr>
</tbody>
</table>

Department of Medicine [http://www.dom.pitt.edu/paccm](http://www.dom.pitt.edu/paccm)
<table>
<thead>
<tr>
<th>Researcher</th>
<th>Study Title</th>
<th>Details</th>
<th>Sponsor</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risbano, Michael G.</td>
<td>Slope of 6MWD Improvement as a Predictor of Clinical Outcome in PAH</td>
<td>United Therapeutics Corp.</td>
<td></td>
<td>$6,289</td>
<td>$3,711</td>
</tr>
<tr>
<td>Rivera-Lebrón, Belinda</td>
<td>Portico: A Randomized, Double-Blind, Placebo-Controlled, Prospective, Multicenter, Parallel Group Study to Assess the Safety and Efficacy of Macitentan in Patients with Portopulmonary Hypertension.</td>
<td>Acetelion</td>
<td></td>
<td>$29,247</td>
<td>$3,221</td>
</tr>
<tr>
<td>Sciurba, Frank</td>
<td>Study MEA117106: Mepolizumab vs. Placebo as Add-on Treatment for Frequently Exacerbating COPD Patients</td>
<td>GlaxoSmithKline</td>
<td></td>
<td>$67,787</td>
<td>$13,776</td>
</tr>
<tr>
<td>Sciurba, Frank</td>
<td>The Use of High Frequency Oscillations with NIV in Hypercapnic COPD Participants</td>
<td>Respironics</td>
<td></td>
<td>$531</td>
<td>$0</td>
</tr>
<tr>
<td>Sciurba, Frank</td>
<td>A Randomised, Double-Blind, Chronic Dosing (56 Week) Placebo-Controlled, Parallel Group, Multicentre, Phase III Study to Evaluate the Efficacy and Safety of 2 Doses of Benralizumab (Medi-563) in Patients with Moderate to Very Severe Chronic Obstructive P</td>
<td>AstraZeneca</td>
<td></td>
<td>$84,530</td>
<td>$18,857</td>
</tr>
<tr>
<td>Sciurba, Frank</td>
<td>LVRC IDE Crossover Study (Crossover from IDE Trial CLN0009, Lung Volume Reduction Coil Treatment in Patients with Emphysema (RENEW) Study, IDE G110066</td>
<td>PneumRx</td>
<td></td>
<td>$69,636</td>
<td>$20,664</td>
</tr>
<tr>
<td>Project Title</td>
<td>Investigator</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------------------------------------------------------------------</td>
<td>--------------------------</td>
<td>--------------</td>
<td>----------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A Phase III, 52 Week, Randomized, Double-Blind, 3-Arm Parallel Group Study, Comparing the Efficacy, Safety and Tolerability of the Fixed Dose Triple Combination with the Fixed Dose Dual Combinations of FF/VI and UMEC/VI, All Administered Once-Daily in the Morning</td>
<td>SCIURBA, FRANK</td>
<td>GLAXOSMITHKLINE</td>
<td>$37,723</td>
<td>$8,351</td>
<td></td>
</tr>
<tr>
<td>Lung Function Improvement After Bronchoscopic Lung Volume Reduction with Pulmonx Endobronchial Valves Used in Treatment of Emphysema (Liberate Study)</td>
<td>SCIURBA, FRANK</td>
<td>PULMONX</td>
<td>$319,642</td>
<td>-$14,485</td>
<td></td>
</tr>
<tr>
<td>Lung Volume Reduction Coil Treatment in Patients with Emphysema (RENEW) Study</td>
<td>SCIURBA, FRANK</td>
<td>PNEUMRX, INC.</td>
<td>$54,168</td>
<td>$12,314</td>
<td></td>
</tr>
<tr>
<td>Effects of Dual (ETA/ETB) Versus Single (ETA) Endothelin Receptor Inhibition on Naphthylthiourea (ANTU) - Induced Vascular Leakage and Pulmonary Hypertension</td>
<td>TOFOVIC, STEVAN P.</td>
<td>ACTELION CLINICAL OPERATIONS</td>
<td>$5,133</td>
<td>$3,030</td>
<td></td>
</tr>
<tr>
<td>Evaluate Whether Suprarenal Abdominal Aorta Constriction (SRAAC) in ZSF-1 Rats Can Serve as an Animal Model for Heart Failure With Preserved Ejection Fraction</td>
<td>TOFOVIC, STEVAN P. (HFPEF)</td>
<td>MERCK</td>
<td>$76,995</td>
<td>$47,352</td>
<td></td>
</tr>
<tr>
<td>Project Description</td>
<td>Awarding Institution</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------------</td>
<td>-----------------------------</td>
<td>--------------</td>
<td>----------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A PHASE II, RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED BRONCHOSCOPY STUDY TO EVALUATE THE EFFECTS OF LEBRIKIZUMAB ON AIRWAY EOSINOPHILIC INFLAMMATION IN PATIENTS WITH UNCONTROLLED ASTHMA ON INHALED CORTICOSTEROIDS AND A SECOND CONTROLLER MEDICATION</td>
<td>GENENTECH, INC.</td>
<td>$98,255</td>
<td>$13,643</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEA115661: A MULTICENTRE, OPEN-LABEL, LONG-TERM SAFETY STUDY OF MEPOLIZUMAB IN ASTHMATIC SUBJECTS WHO PARTICIPATED IN THE MEA115588 OR MEA115575 TRIALS</td>
<td>GLAXO SMITH KLINE</td>
<td>$1,048</td>
<td>$239</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A PHASE IIA, RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED, PARALLEL GROUP STUDY TO ASSESS THE SAFETY AND EFFICACY OF SUBCUTANEOUSLY ADMINISTERED BI 655066 AS ADD-ON THERAPY OVER 24 WEEKS IN PATIENTS WITH SEVERE PERSISTENT ASThma</td>
<td>BOEHRINGER INGELHEIM</td>
<td>$15,948</td>
<td>$1,987</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED, PARALLEL GROUP STUDY TO ASSESS THE EFFICACY, SAFETY, AND TOLERABILITY OF PF-03715455 ADMINISTERED TWICE DAILY BY INHALATION FOR 12 WEEKS IN SUBJECTS WITH PERSISTENT MODERATE TO SEVERE ASTHMA WHO REMAIN UNCONTROLLED</td>
<td>PFIZER, INC.</td>
<td>$93</td>
<td>$11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A MULTICENTRE, RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED, PARALLEL GROUP, DOSE RANGING STUDY TO DETERMINE THE EFFECT OF MEPOLIZUMAB</td>
<td>GLAXOSMITHKLINE</td>
<td>$4,626</td>
<td>$0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Study Description</td>
<td>Sponsor</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------</td>
<td>-----------------------</td>
<td>--------------</td>
<td>----------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ON EXACERBATION RATES IN SUBJECTS WITH SEVERE UNCONTROLLED REFRACTORY ASTHMA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A MULTICENTER, RANDOMIZED, DOUBLE-BLIND, PARALLEL GROUP, PLACEBO-CONTROLLED, PHASE 3 EFFICACY AND SAFETY STUDY OF BENRALIZUMAB (MEDI-563) TO REDUCE ORAL CORTICOSTEROID USE IN PATIENTS WITH UNCONTROLLED ASTHMA ON HIGH DOSE INHALED CORTICOSTEROID PLUS LONG-TERM INHOMOEOPATHIC MEDICATION</td>
<td>ASTRAZENECA</td>
<td>$7,530</td>
<td>$1,889</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AN EXPLORATORY, RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED STUDY OF THE EFFECTS OF DUPILUMAB ON AIRWAY INFLAMMATION OF ADULTS WITH PERSISTENT ASTHMA</td>
<td>SANOFI US SERVICES INC.</td>
<td>$24,854</td>
<td>$2,980</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED, PARALLEL GROUP, MULTICENTER STUDY OF MEPOLIZUMAB ADJUNCTIVE THERAPY TO REDUCE STEROID USE IN SUBJECTS WITH SEVERE REFRACTORY ASTHMA</td>
<td>GLAXOSMITHKLINE</td>
<td>$7,239</td>
<td>$1,810</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED STUDY TO EVALUATE THE EFFICACY AND SAFETY OF DUPILUMAB IN PATIENTS WITH SEVERE STEROID DEPENDENT ASTHMA</td>
<td>SANOFI US SERVICES INC.</td>
<td>$6,625</td>
<td>$0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Description</td>
<td>Sponsor</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------------------------------------------------------------------------</td>
<td>------------------------------</td>
<td>---------------</td>
<td>----------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A 52-WEEK, MULTICENTER, RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED STUDY TO ASSESS THE EFFICACY AND SAFETY OF QAW039 WHEN ADDED TO EXISTING ASTHMA THERAPY IN PATIENTS WITH UNCONTROLLED SEVERE ASTHMA</td>
<td>NOVARTIS</td>
<td>$6,600</td>
<td>$0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A MULTICENTRE, RANDOMIZED, PARALLEL GROUP, PHASE 3 SAFETY EXTENSION STUDY TO EVALUATE THE SAFETY AND TOLERABILITY OF BENRALIZUMAB (MEDI-563) IN ASTHMATIC ADULTS AND ADOLESCENTS ON INHALED CORTICOSTEROID PLUS LONG-ACTING B2 AGONIST (BORA)</td>
<td>ASTRAZENECA</td>
<td>$30,123</td>
<td>$5,396</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STUDY 201312: A MULTI-CENTRE, OPEN-LABEL, STUDY OF MEPOLIZUMAB IN A SUBSET OF SUBJECTS WITH A HISTORY OF LIFE THREATENING/SERIOUSLY DEBILITATING ASTHMA WHO PARTICIPATED IN THE MEA115661 TRIAL</td>
<td>GLAXOSMITHKLINE</td>
<td>$9,234</td>
<td>$2,128</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A RANDOMIZED, DOUBLE BLIND, PLACEBO-CONTROLLED, PARALLEL GROUP STUDY TO EVALUATE THE EFFICACY AND SAFETY OF DUPILUMAB IN PATIENTS WITH PERSISTENT ASTHMA</td>
<td>SANOFI US SERVICES INC.</td>
<td>$57,282</td>
<td>$8,296</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL INDUSTRY</strong></td>
<td></td>
<td><strong>$1,596,401</strong></td>
<td><strong>$230,219</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PUBLIC HEALTH SERVICE</strong></td>
<td></td>
<td>$13,813,632</td>
<td>$5,937,525</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>FEDERAL</strong></td>
<td></td>
<td>$2,148,206</td>
<td>$104,493</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>STATE</strong></td>
<td></td>
<td>$235,747</td>
<td>$0</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SOCIETY AND FOUNDATIONS</strong></td>
<td></td>
<td>$1,133,664</td>
<td>$52,888</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>INDUSTRY</strong></td>
<td></td>
<td>$1,596,401</td>
<td>$230,219</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>$18,927,650</strong></td>
<td><strong>$6,325,125</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
TEACHING ACTIVITIES

The Pulmonary, Allergy and Critical Care Medicine Division provides educational programs in lung disease and critical care medicine for trainees, physicians, and patients throughout the region. The Division directs the second-year medical student course with an integrated curriculum, focused on the pathophysiology of pulmonary disease, and supports 22 fellowship positions on a yearly basis, through 3 NHLBI training (T32) awards for the career development of young investigators. Other teaching activities include weekly, quarterly, and annual conferences, including Pulmonary Grand Rounds, the PACCM Collaborative Research Seminar, Journal Club, Case Conferences, Sleep Medicine Lectures, Radiology Conferences, the Pittsburgh International Lung Conference, an annual Update in Pulmonary Medicine, and the Robert M. Rogers Lectureship.

The Fundamentals of Bench Research Course is an annual course that provides theoretical and practical training in the basics of bench research for clinical fellows and junior faculty. This program provides trainees with a structured—yet flexible and individualized—experience and the technical and academic skills necessary to become independent investigators in translational research. Training is centered on a dedicated research project mentored by two experienced faculty members from both ends of the translational research spectrum.

The annual Pittsburgh-Munich International Lung Conference was held on October 1-3, 2015, in Munich Germany. The conference’s topic was “Precision Medicine: From Molecular Mechanisms to Targeted Therapy.” A total of 30 University of Pittsburgh faculty, post-docs, and staff participated in the conference as speakers and attendees.

During this past year, the Simmons Center participated in the PA-IPF Registry Provider CME and Patient Advocacy Event in Valley Forge, PA, to increase awareness of Idiopathic Pulmonary Fibrosis and Pulmonary Fibrosis. These were both well attended by health care providers and patients. The 11th Annual Golf Outing, which was held August 24, 2015, invites patients for a day of free golf or bingo, and it concludes with a dinner. This event gives patients the opportunity to learn ways to live with a serious illness, to be with other patients, and to participate in activities in a safe environment. Our entire medical team attends, and event proceeds help fund the annual Gateway Clipper Cruise for patients and their caregivers, as well as the Simmons Center patient support group meetings.

The Division held the 14th annual Robert M. Rogers Lecture, and welcomed as its speaker Augustine Choi MD, Interim Dean, Interim Provost for Medical Affairs, Weill Cornell University. His talk was entitled Cytoprotection and Therapeutics in Lung Disease: From Gaseous Molecules to Autophagy. The Division’s annual awards were presented during luncheon following the lecture. Winners were Frank Scuhrba MD, PACCM Outstanding Mentor Award; David Wilson MD, PACCM Outstanding Educator Award; Divay Chandra MD, PACCM Bernie Pennock Outstanding Young Investigator Award; and Patty Geraci, Administrative Assistant, Outstanding Service Award. Ian Barbash MD and Faraaz Shah MD received the PACCM Robert M. Rogers Awards for Outstanding Scholarly Achievement, while Betsy Ellenberger CRNP and Peggy Stoeff CRNP each received the new PACCM Breath of Life Award.

Team PHenomenal Hope, sponsored by UPMC and led by PACCM’s Dr. Patricia George, was created with the belief that finding a cure for pulmonary hypertension (PH) begins with increasing awareness about the disease. Using ultra-endurance sports as a platform to awareness, the organization promotes its cause in an effort to educate people about PH and the need for a cure. Its mission is to train and race in honor of those affected by pulmonary hypertension; to raise awareness about the disease; to raise money to support the PH community; and to inspire others to take an active step in this race towards a cure.

In the past year, PHenomenal Hope announced a new fundraising initiative to directly fund research on pulmonary hypertension. Two Pittsburgh events— the PH5K in April 2016 and the 2016 Pittsburgh Marathon—launched the fundraising effort. More information is available at http://teamphenomenalhope.org.
Teaching Honors and Awards

Faraaz Ali Shah MD
- American Thoracic Society Travel Award, 2015
- PACCM Robert M. Rogers Award for Outstanding Scholarly Achievement, May 2016

Ian Barbash MD
- PACCM Robert M. Rogers Award for Outstanding Scholarly Achievement, May 2016

Nayra Cardenes PhD
- Translational Junior Faculty Research Award 2016 for “Deficiencies in Mesenchymal Stem Cells from Idiopathic Pulmonary Fibrosis Patients Result in Lower Capacity to Protect the Lung from Injury”, Mentor: Mauricio Rojas MD

Divay Chandra MD MSc
- PACCM Bernie Pennock Outstanding Young Investigator Award, 2016

Beibei (Bill) Chen PhD
- Pitt Innovator Award, 2014
- Munich/Pittsburgh International Lung Conference Investigator Award, 2015

Betsy Ellenberg RN CRNP
- PACCM Breath of Life Award, 2016

Jessica Field MD
- PACCM Junior Translational Scholar Award, August 2015

Patricia Geraci
- PACCM Outstanding Service Award, 2016

Quyen Nguyen MD
- Translational Fellow Research Award 2016 for “Platelet Bioenergetic Screen Reveals Increased Glycolytic Rate in Group 1 Pulmonary Hypertension and Increased Oxygen Consumption in Group 2 Pulmonary Hypertension”, Mentors: Sruti Shiva PhD, Mark Gladwin MD, and Mar Simon MD

Anuradha Ray PhD
- Recognition Award for Scientific Accomplishments, American Thoracic Society, 2016

Raju Reddy MD
- Mario Toppo Distinguished Scientist Award, 2015
- Pitt Innovator Award, 2016

Mauricio Rojas MD
- The Dozer Visiting Professor Award, Ben-Gurion University, Be’ersheva, Israel, 2016

Jason Rose MD
- Translational Fellow Research Award 2016 for “An Antidotal Therapy for Carbon Monoxide Position Improves Survival by Reversing Hemodynamic Collapse and Mitochondrial Dysfunction”, Mentors: Mark Gladwin MD, and Sruti Shiva MD
Frank C. Sciurba MD
• PACCM Outstanding Mentorship Award, 2016

Margaret Stoeff RN CRNP
• PACCM Breath of Life Award, 2016

Tomeka Suber MD
• Bench Fellow Research Awards 2016 for “GSK3β Stability is Regulated by Its Activation State and Influences Inflammation in Lung Epithelial Cells”, Mentors: Rama Mallampalli MD, Yutong Zhao MD PhD, and Jing Zhao MD

Nathaniel Weathington MD
• American Society of Clinical Investigators Young Physician Scientist Award, 2015

Sally Wenzel MD
• American Thoracic Society Breathing for Life Award, 2016

David O. Wilson MD
• PACCM John W. Kreit Outstanding Educator Award, 2016
**Fellowship Program**

<table>
<thead>
<tr>
<th>Current Fellow</th>
<th>Medical School</th>
<th>Residency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alvarez</td>
<td>Nova Southeastern University College of Osteopathic Medicine</td>
<td>Emory University</td>
</tr>
<tr>
<td>Baker</td>
<td>Icahn School of Medicine at Mount Sinai</td>
<td>Yale University</td>
</tr>
<tr>
<td>Barbash</td>
<td>Harvard Medical School</td>
<td>Massachusetts General Hospital</td>
</tr>
<tr>
<td>Bain</td>
<td>Columbia University College of Physicians and Surgeons</td>
<td>Johns Hopkins Hospital</td>
</tr>
<tr>
<td>Evankovich</td>
<td>University of Pittsburgh</td>
<td>UPMC</td>
</tr>
<tr>
<td>Gauthier</td>
<td>Vanderbilt University School of Medicine</td>
<td>UPMC</td>
</tr>
<tr>
<td>Herman</td>
<td>Jefferson Medical College of Thomas Jefferson University</td>
<td>UPMC</td>
</tr>
<tr>
<td>Kitsios</td>
<td>Aristotle University of Thessaloniki Faculty of Medicine Greece</td>
<td>Lahey Hospital &amp; Medical Center, Burlington</td>
</tr>
<tr>
<td>Lennox</td>
<td>State University of New York Downstate Medical Center, College of Medicine</td>
<td>Beth Israel Deaconess Medical Center</td>
</tr>
<tr>
<td>Levine</td>
<td>University of Maryland School of Medicine</td>
<td>University of Maryland</td>
</tr>
<tr>
<td>Maximous</td>
<td>George Washington University School of Medicine and Health Sciences</td>
<td>Boston University</td>
</tr>
<tr>
<td>Nguyen</td>
<td>University of Pittsburgh School of Medicine</td>
<td>Cleveland Clinic Foundation</td>
</tr>
<tr>
<td>Nolley</td>
<td>Washington University in St. Louis School of Medicine</td>
<td>Washington University in St. Louis</td>
</tr>
<tr>
<td>O'Brien</td>
<td>University College Cork School of Medicine</td>
<td>Cork University College, Ireland</td>
</tr>
<tr>
<td>Otepka</td>
<td>Creighton University School of Medicine</td>
<td>Washington University in St. Louis</td>
</tr>
<tr>
<td>Rose</td>
<td>Wayne State University School of Medicine</td>
<td>Duke University Medical Center</td>
</tr>
<tr>
<td>Strock</td>
<td>University of Illinois College of Medicine</td>
<td>Vanderbilt University</td>
</tr>
<tr>
<td>Suber</td>
<td>Johns Hopkins University School of Medicine</td>
<td>Johns Hopkins Hospital</td>
</tr>
<tr>
<td>Winters</td>
<td>Michigan State University College of Human Medicine</td>
<td>University of Michigan</td>
</tr>
<tr>
<td>Yoon</td>
<td>Catholic University of Korea, College of Medicine, Korea, Republic of</td>
<td>Westchester Medical Center-New York Medical College</td>
</tr>
<tr>
<td>Zank</td>
<td>Loyola University Chicago Stritch School of Medicine</td>
<td>University of California, San Diego</td>
</tr>
</tbody>
</table>

**Sleep Fellows**

<table>
<thead>
<tr>
<th>Current Fellow</th>
<th>Medical School</th>
<th>Residency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ali</td>
<td>Aga Khan University Medical College, Karachi, Pakistan</td>
<td>West Virginia University</td>
</tr>
</tbody>
</table>
Departing Fellow | Current Position
---|---
Alvarez Roger | Assistant Professor at University of Miami, Division of Pulmonary and Critical Care Medicine
Barbash Ian | Postdoctoral Fellow supported by an F32 award and Casual UPP appointment
Gauthier Marc | Staying at UPMC as clinical / research instructor associate. Will be on the T32
Herman Julie | Sleep Medicine Fellowship at the University of Pittsburgh
Nguyen Quyen | Clinical Instructor and will be on the T32
Otepka Hannah | Assistant Professor of Medicine at University of Virginia-lung transplant pulmonologist
Rose Jason | Remaining at Pitt as a Medical Instructor with an F32 Grant. He will also finish his MBA next year.

Sleep Fellows

Departing Fellow | Current Position
---|---
Ali Ailia | Joining a pulmonary and critical care practice in Maryland, where she will serve as director of sleep practice

Fellow Publications


Fellow Presentations


Barbash IJ. “Medicare’s Sepsis Measure: Policy and Practice”, Department of Critical Care Medicine, CRISMA Research Conference, Pittsburgh, PA, April 19, 2016

Barbash IJ. “Mind the Gap: Improving Care in the 21st Century”, Division of Pulmonary, Allergy, and Critical Care Medicine, Research in Progress Conference, Pittsburgh, PA, September 15, 2016

Barbash IJ. "Interhospital Transfers and Hospital Benchmarking", Division of Pulmonary, Allergy, and Critical Care Medicine, Research in Progress Conference, Pittsburgh PA, October 26, 2015


Kitsios GD. Fitch A, Rapport SF, Morowitz MJ, Morris A, McVerry BJ. The oral, lung and gut microbiome in adult critically-ill patients with or at-risk for the acute respiratory distress syndrome. 14th Annual Research Day, Department of Medicine, University of Pittsburgh, May 2016

Suber T. ATS International Conference, May 2016

Suber T. Department of Medicine Research Day, May 2016

Suber T. Submitted abstract to Young Investigator’s Respiratory Medicine Forum, 2015-2016

Honors and Awards

Barbash, IJ. PACCM Division Robert M. Rogers Award for Outstanding Scholarly Achievement, June 2016

Kitsios GD. ATS Abstract Scholarship, Critical Care Assembly, ATS International Conference, San Francisco, 2016

Suber T, Cai J, Zhao J, Zhao Y, Mallampalli RK. GSK3β Stability is regulated by its activation state and influences inflammation in lung epithelial cells. Thematic Poster Session. ATS International Conference; San Francisco, 2016

Suber T, Cai J, Zhao J, Zhao Y, Mallampalli RK. GSK3β Stability is regulated by its activation state and influences inflammation in lung epithelial cells. Department of Medicine: Award for best basic science poster, May 2016

Suber T., Minority Trainee Development Scholarship Award, ATS International Conference, May 2016
CLINICAL CARE

Comprehensive Lung Center (CLC)

The Comprehensive Lung Center (CLC) is a multidisciplinary diagnostic center that serves as a hub for expertise in pulmonary, allergy, and sleep medicine. It serves as the clinical home to eight specialty centers: Adult Cystic Fibrosis and Bronchiectasis, Asthma and Airway Inflammation, Diagnostic Pulmonary Medicine, Emphysema and COPD, Interstitial Lung Disease, Advanced Lung Disease and Lung Transplantation, Sleep Disordered Breathing, and Pulmonary Hypertension. The CLC is also home to the Asthma Institute, the Simmons Center for Interstitial Lung Disease, and the UPMC Sleep Medicine Center. During the 2015-2016 academic year, the center continued to maintain a high volume of patient visits, as shown in Table 1. The reduction in volume is as anticipated with changes in the Pittsburgh region’s insurance landscape. New patients are seen by one of the Division’s pulmonologists within 72 hours of initial request. A comprehensive outpatient pulmonary medicine clinic at the Oakland VA hospital also provides a full range of pulmonary services for the veteran population and provides a major training ground for the PACCM fellowship program.

Other Outpatient Sites

The Division also sees outpatients at sites outside of the Oakland-based CLC, including the McKeesport Painter Building clinic (General Pulmonary); and the Monroeville Comprehensive Lung Center Clinic (Sleep Medicine and General Pulmonary). Outpatient activity at these sites is shown in Table 2. Decreased volume in new and established patient visits is due primarily to the mid-FY15 divestiture of the Greensburg Allergy practice, which had clinic locations in both Greenburg and Monroeville.

Inpatient Programs

The inpatient efforts of the PACCM Division (Table 3) focus on four services at UPMC Presbyterian: the Advanced Lung Disease (ALD) Service (Stepdown and Select Specialty), the Pulmonary Transplant Service, the Medical ICU, and the Pulmonary Consultation Service. Over the past year, we have experienced some reduction in Transplant volume. Also over the past year, we reduced our coverage at UPMC McKeesport from 52 to 39 weeks, which resulted in a decrease in volume at that location. Other inpatient visit volumes remained steady. Distinct consultation and Medical ICU services at the Oakland VA Medical Center provide a full range of pulmonary and critical care services for this location.

| TABLE 1: HISTORICAL CLC VISIT VOLUME |
| Visits | FY 2014 | FY 2015 | FY 2016 |
| New | 2,888 | 3,064 | 2,903 |
| Return | 14,387 | 14,225 | 13,632 |
| TOTAL | 17,275 | 17,287 | 16,235 |

| TABLE 2: HISTORICAL OTHER OUTPATIENT SITE VOLUME |
| Visits | FY 2014 | FY 2015 | FY 2016 |
| New | 948 | 664 | 379 |
| Return | 2,699 | 2,485 | 1,274 |
| TOTAL | 3,647 | 3,149 | 1,653 |

| TABLE 3: HISTORICAL UPMC INPATIENT VOLUME |
| Category | FY 2014 | FY 2015 | FY 2016 |
| MICU | 9,704 | 10,076 | 10,510 |
| Transplant | 10,965 | 10,286 | 9,307 |
| Consult | 3,377 | 4,010 | 3,666 |
| Stepdown | 4,188 | 3,127 | 3,672 |
| PUH Hospitalist | 4,783 | 4,874 | 3,589 |
| Select Specialty (Sempercare) | 5,581 | 6,475 | 5,744 |
| McKeesport EAST | 4,100 | 3,871 | 2,995 |
| Mercy | 5,506 | 5,589 | 4,905 |
| TOTAL | 48,227 | 48,346 | 45,415 |
Laboratory Programs

The PACCM Division supports clinical laboratories for the evaluation of patients with lung disease, including a comprehensive pulmonary physiology laboratory (with exercise testing and inhalation challenge), two dedicated bronchoscopy rooms with fluoroscopy, and the sleep and control-of-breathing laboratory. Table 4 summarizes the PACCM laboratory volume activity this year.

Other procedure volume includes miscellaneous outpatient volume (Table 5). Over the past year, the Division sustained volume in outpatient “other procedures.” In particular, Allergy Immunotherapy has seen an increase in volume. Clinical programs in asthma and airway inflammation, adult cystic fibrosis, pulmonary hypertension, and interstitial lung disease have strengthened the Division’s historical excellence in the care of COPD/emphysema, cystic fibrosis, advanced lung disease and lung transplantation, and sleep-disordered breathing.

In summary, FY16 has been a challenging year in PACCM, with turnover of faculty, planned implementation of new clinical programs (e.g. interventional bronchoscopy), re-organization of clinical activities at perimeter sites (UPMC McKeesport), as well as a modest decline in some procedural and outpatient visit volumes. Overall, however, it is anticipated that both inpatient and outpatient volume and procedures will increase as growth within the clinical operation continues to expand with a commensurate increase in faculty number.

Shadyside Operations

The Medical Thoracic Associates (MTA) group is a Division within the PACCM program. The group of 12 physicians, under the leadership of Jennifer McComb MD, practices primarily at UPMC Shadyside, with an outpatient presence in Monroeville and Irwin.

Rama Mallampalli MD, Dr. McComb and Joel Weinberg MD continue to collaborate on the recruitment of pulmonologists for the Shadyside location, and have made progress in building a closer relationship between the two sites.

The Division also has a presence at UPMC Shadyside through the practice of Dr. David Wilson, who sees outpatients at the Hillman Cancer Center.

A Pulmonary Hypertension outpatient clinic continues at the Shadyside MTA office. A summary of the Shadyside volume is included in Table 6.

### TABLE 4: HISTORICAL UPMC LABORATORY VOLUME

<table>
<thead>
<tr>
<th>Category</th>
<th>FY 2014</th>
<th>FY 2015</th>
<th>FY 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bronchoscopy</td>
<td>3,757</td>
<td>3,571</td>
<td>3,070</td>
</tr>
<tr>
<td>Physiology</td>
<td>17,545</td>
<td>17,149</td>
<td>15,350</td>
</tr>
<tr>
<td>Sleep/Polsom</td>
<td>2,104</td>
<td>2,603</td>
<td>2,095</td>
</tr>
<tr>
<td>TOTAL</td>
<td>23,406</td>
<td>23,323</td>
<td>20,515</td>
</tr>
</tbody>
</table>

### TABLE 5: OTHER PROCEDURE VOLUME

<table>
<thead>
<tr>
<th>Category</th>
<th>FY 2014</th>
<th>FY 2015</th>
<th>FY 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUH</td>
<td>1,527</td>
<td>1,553</td>
<td>2,112</td>
</tr>
</tbody>
</table>

### TABLE 6: SHADYSIDE OPERATIONS HISTORICAL VOLUME

<table>
<thead>
<tr>
<th>Category</th>
<th>FY 2014</th>
<th>FY 2015</th>
<th>FY 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outpatient</td>
<td>6,201</td>
<td>6,549</td>
<td>6,931</td>
</tr>
<tr>
<td>Inpatient</td>
<td>48,107</td>
<td>47,605</td>
<td>46,193</td>
</tr>
<tr>
<td>Procedures</td>
<td>10,780</td>
<td>11,079</td>
<td>11,439</td>
</tr>
<tr>
<td>TOTAL</td>
<td>65,088</td>
<td>65,233</td>
<td>64,563</td>
</tr>
</tbody>
</table>
Telemedicine

In FY16, the Division continued to offer telemedicine services. We offer sleep medicine consult service with UPMC Northwest (David Kristo MD and Patrick Strollo MD) and general pulmonary service with UPMC Bedford (Christopher Faber MD). In the past year, we implemented a Tele-ICU service between UPMC McKeesport and UPMC East for night time coverage. We also implemented a telemedicine Allergy Consult service to UPMC East.

Divisional Physician Productivity Improvements

A focus of the last year has been improving physician knowledge and efficiency of the outpatient electronic medical record system, EPIC. A series of meetings led by an EPIC ‘superuser’ were provided to clinical faculty in an attempt to improve utilization and timely completion of clinic charts. In addition, physician leadership has partnered with nursing leadership to improve efficiency of the bronchoscopy laboratory, with particular attention to anesthesia utilization.
Clinic Locations

Central

Comprehensive Lung Clinic (CLC)  
Falk Medical Building, 3601 Fifth Avenue, 4th Floor, Pittsburgh, PA 15213, USA

Comprehensive Lung Center (Lung Cancer Screening Clinic)  
Falk Medical Building, 3601 Fifth Avenue, 4th Floor, Pittsburgh, PA 15213, USA

David O. Wilson, MD, Pulmonary Medicine Practice  
(Part of UPMC Division of PACC)  
Hillman Cancer Center, 5115 Centre Avenue, 2nd Floor, Pittsburgh, PA 15232, USA

Medical Thoracic Associates at Shadyside  
(Part of UPMC Division of PACC)  
Shadyside Medical Building, 5200 Centre Avenue, Suite 610, Pittsburgh, PA 15232, USA

UPMC Sleep Medicine Center at UPMC Montefiore  
UPMC Montefiore Hospital, 3459 Fifth Avenue, S369, Pittsburgh, PA 15213, USA

East and South

Medical Thoracic Associates at UPMC Monroeville  
Oxford Drive (Part of UPMC Division of PACC)  
UPMC Monroeville Oxford Drive, 400 Oxford Drive, Suite G-65, Monroeville, PA 15146, USA

UPMC Sleep Medicine Center at UPMC Monroeville  
Oxford Drive  
UPMC Monroeville Oxford Drive, 400 Oxford Drive, Suite G-85, Monroeville, PA 15146, USA

Medical Thoracic Associates in Irvin  
(Part of Division of PACC)  
3520 PA-130, Irvin, PA 15642, USA

Medical Thoracic Associates at West Mifflin  
(Part of Division of PACC)  
1907 Lebanon Church Road, West Mifflin, PA 15129, USA

UPMC Comprehensive Lung Center - South Hills  
733 Washington Road, Suite 204, Mt Lebanon, PA 15228, USA
CLINICAL QUALITY IMPROVEMENT INITIATIVES

During FY16, the PACCM Division continued quality improvement initiatives in medical ICU and specialty programs. A selection of current projects is outlined below.

- The Respiratory Care Enhancement Program (RCEP) seeks to reduce ER visits and hospitalizations in patients with asthma and other respiratory diseases through dissemination of specialty respiratory care into primary care practices across the UPMC system. The RCEP has been seeing patients for ~1 year and has been broadly accepted into six primary care practices. Preliminary data after 1 year have shown reductions in pharmacy costs and improvement in asthma control with early trends showing reductions in ER visits and hospitalizations.

- Projects in the Medical Intensive Care Unit include:
  - Medical ICU Rounds Reorganization Project. This ongoing project involves restructuring morning rounds to occur at the bedside, to engage the bedside nurse in decision making, and to address a quality checklist each day with a goal toward improving ICU-acquired infections, device utilization, and house staff education.
  - Evaluation of ketamine for adjunct sedation in mechanically ventilated patients. This project involves surveying all patients in the UPMC Presbyterian ICUs to determine the effectiveness and safety of continuous infusion ketamine for adjunct sedation in critically ill patients who are receiving mechanical ventilation.
  - Fentanyl-based sedation protocol for the MICU. This project is designed to assess the feasibility and effectiveness of a bolus fentanyl-based sedation regimen for critically ill patients requiring mechanical ventilation.

- Exploratory evaluation of palliative care quality indicators in patients with chronic lung disease requiring an ICU admission. This is a joint project between the Simmons Center for Interstitial Lung Disease and the MICU. The goals are to evaluate the delivery of palliative care in IPF and COPD patients in the ICU by assessing for the presence of the eight select Palliative Care Quality Indicators (PCQI)—and to explore the relationship between PCQI and select patient outcomes (ICU LOS, hospital LOS, days spent on mechanical ventilation, and hospital mortality) in COPD and IPF patients admitted to the ICU.

- The Simmons Center is working with Pathology to review utilization of the new IPF medications, pirfenidone and nintedanib. The team is reviewing the internal practice regarding prescription of these medications, while also reviewing cases across the UPMC hospitals to ensure that these costly medications are prescribed appropriately.

- Central venous catheter insertion curriculum for MICU/CICU residents and medical students: Monthly course partnered with WISER and cardiology. Course consists of web based pre-course material, didactic session, hands-on ultrasound training, and simulation task trainers.

- Improving pulmonary and critical care fellow orientation. Continued four-day-simulation-based course focusing on patient safety:
  - Airway management
  - Central venous catheter insertion
  - Pleural drainage
  - Critical care ultrasonography
Continuation of Pulmonary Embolism registry to allow comparative efficacy research. The goals of the Acute Pulmonary Embolus Team Patient Registry are described in terms of patient outcomes:

- Describe the natural history of acute pulmonary embolus
- Determine effectiveness of medical and surgical management in pulmonary embolus
- Assess the safety of medical and surgical management in acute pulmonary embolus
- Improve quality of care by standardizing care toward patients with acute pulmonary embolus

The CF program and Comprehensive Lung Center implemented a change in clinic flow in an effort to improve patient satisfaction as well as infection control. Secondary to input from patients through the Cystic Fibrosis Foundation Patient Experience Survey, it became apparent that our patients were spending too much time in the waiting room. In addition, it was the perception of several individuals that they came within six feet of other people with CF, a violation of current CF infection control guidelines. Our aim was to change the clinic flow to decrease the time patients were spending in the waiting room by 30% over the next 12 months. The process began with an observed time study at baseline; we then changed the clinic flow to eliminate the patient returning to the waiting room following spirometry. Instead, patients now go straight to the clinic room from the PFT lab. The process will be completed when we achieve shortened waiting room time for the patients, with resultant decreased potential exposure to other patients with CF. It should also shorten overall clinic visit time and increase both staff and patient satisfaction. The change will be measured using QDI patient survey outcome measures, verbal query of staff satisfaction after six and 12 months, and a repeat of an observed time study.

- Additional QI efforts in the CF program focus on mental health screening. We aim to improve the care of our patients’ mental health by initiating annual screening for depression and anxiety per CFF Guidelines. The process will begin with development of a plan to administer the PHQ-9 and GAD-7 to all active adult CF patients, and to make referrals to support services as needed. Measurement will include percentage of active patients screened within the calendar year. The process ends with 90% of all active patients screened within 2016.

Projects in the Sleep Center include:

- American Academy of Sleep Medicine (AASM) Interscorer Reliability: Metric assesses all sleep scorers for accuracy, comparing their score in an unknown sleep study record with a consensus score from established sleep scoring experts. The metric is intended to help insure uniformity in sleep study scoring.
- Sleep Study Lab Bed Utilization: Metric assesses for percentage of sleep study beds filled nightly in effort to maximize access and decrease wait times for sleep studies.
- Sleep Study Ordered and Protocol Followed: Metric assesses technician adherence to physician orders and Sleep Center Policy and Procedures, reviewing 10 charts in each center monthly.
- Patient Evaluation of Sleep Services: Metric assesses patient satisfaction after sleep study and the degree of patient positivity regarding the UPMC sleep evaluation.
FACULTY

Faculty in Core Divisions
Fiscal Year 2014-2016

<table>
<thead>
<tr>
<th>Division</th>
<th>FY 2003 (Base Year)</th>
<th>FY 2014</th>
<th>FY 2015</th>
<th>FY 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pulmonary</td>
<td>35</td>
<td>97</td>
<td>102</td>
<td>106</td>
</tr>
</tbody>
</table>

Note: Includes University of Pittsburgh full-time faculty and volunteer faculty who have a UPP appointment and excludes research associates, adjunct faculty and emeritus faculty.

Current Pulmonary, Allergy and Critical Care Medicine Faculty

Full-Time Faculty

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Degree</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agassandian</td>
<td>Marianna</td>
<td>PhD</td>
<td>Adjunct Research Assistant Professor</td>
</tr>
<tr>
<td>An</td>
<td>Ping</td>
<td>PhD</td>
<td>Research Associate</td>
</tr>
<tr>
<td>Atwood Jr.</td>
<td>Charles W. MD</td>
<td>PhD</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Bahudhanapati</td>
<td>Harinathachari</td>
<td>PhD</td>
<td>Research Associate</td>
</tr>
<tr>
<td>Bernt</td>
<td>Annerose</td>
<td>PhD</td>
<td>Visiting Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Bostwick</td>
<td>Carol A. PhD</td>
<td>Adjunct Associate Professor of Medicine</td>
<td></td>
</tr>
<tr>
<td>Brands</td>
<td>Judith</td>
<td>PhD</td>
<td>Research Associate</td>
</tr>
<tr>
<td>Camhi</td>
<td>Sharon L. MD</td>
<td>PhD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Cardenes</td>
<td>Nayra</td>
<td>PhD</td>
<td>Research Instructor</td>
</tr>
<tr>
<td>Chan</td>
<td>Yvonne R. MD</td>
<td>PhD</td>
<td>Adjunct Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Chandra</td>
<td>Divay</td>
<td>MD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Chang</td>
<td>Baojun</td>
<td>MD</td>
<td>Research Instructor in Medicine</td>
</tr>
<tr>
<td>Chen</td>
<td>Beibei</td>
<td>PhD</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Chiarchiaro</td>
<td>Jared</td>
<td>MD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Clark</td>
<td>Melissa</td>
<td>MD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Corcoran</td>
<td>Timothy E. PhD</td>
<td>PhD</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Corti</td>
<td>Paola</td>
<td>PhD</td>
<td>Research Associate</td>
</tr>
<tr>
<td>Crespo</td>
<td>Maria M. MD</td>
<td>PhD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Dandachi</td>
<td>Nadine G. MD</td>
<td>PhD</td>
<td>Instructor in Medicine</td>
</tr>
<tr>
<td>Dauber</td>
<td>James H. MD</td>
<td>PhD</td>
<td>Emeritus Professor</td>
</tr>
<tr>
<td>Doberer</td>
<td>Daniel</td>
<td>MD</td>
<td>Adjunct Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Dodd-o</td>
<td>Jeffrey M. MD</td>
<td>PhD</td>
<td>Adjunct Associate Professor of Medicine</td>
</tr>
<tr>
<td>Donahoe</td>
<td>Michael P. MD</td>
<td>PhD</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Faber</td>
<td>Christopher N. MD</td>
<td>PhD</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Fajt</td>
<td>Merritt L. MD</td>
<td>PhD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Fan</td>
<td>Ming-Hui</td>
<td>MD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Field</td>
<td>Jessica B. MD</td>
<td>MD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Fitzpatrick</td>
<td>Megan E. MD</td>
<td>MD</td>
<td>Instructor in Medicine</td>
</tr>
<tr>
<td>George</td>
<td>Marjorie P. MD</td>
<td>MD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Gibson</td>
<td>Kevin F. MD</td>
<td>MD</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Gingo</td>
<td>Matthew R. MD</td>
<td>MD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Givelber</td>
<td>Rachel J. MD</td>
<td>MD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Gladwin</td>
<td>Mark T. MD</td>
<td>MD</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Gregory</td>
<td>Alyssa D. PhD</td>
<td>PhD</td>
<td>Research Assistant Professor of Medicine</td>
</tr>
</tbody>
</table>

Department of Medicine [http://www.dom.pitt.edu/paccm](http://www.dom.pitt.edu/paccm)
<table>
<thead>
<tr>
<th>Name</th>
<th>Last Name</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gries</td>
<td>Cynthia</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Guo</td>
<td>Lanping</td>
<td>Research Associate</td>
</tr>
<tr>
<td>Hazra</td>
<td>Rimi</td>
<td>Research Associate</td>
</tr>
<tr>
<td>Hoji</td>
<td>Akihiko</td>
<td>Research Associate</td>
</tr>
<tr>
<td>Inoue</td>
<td>Hideki</td>
<td>Research Associate</td>
</tr>
<tr>
<td>Jang</td>
<td>Jun Ho</td>
<td>Research Instructor in Medicine</td>
</tr>
<tr>
<td>Jennings</td>
<td>Constance</td>
<td>Visiting Associate Professor of Medicine</td>
</tr>
<tr>
<td>Johnson</td>
<td>Bruce</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Kass</td>
<td>Daniel</td>
<td>Visiting Associate Professor of Medicine</td>
</tr>
<tr>
<td>Kreit</td>
<td>John</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Kristo</td>
<td>David</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Lamberty</td>
<td>Philip</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Lee</td>
<td>Janet</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Leme</td>
<td>Adriana</td>
<td>Research Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Li</td>
<td>Hui-Hua</td>
<td>Research Associate</td>
</tr>
<tr>
<td>Lindell</td>
<td>Kathleen</td>
<td>Research Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Liu</td>
<td>Yuan</td>
<td>Research Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Mallampalli</td>
<td>Rama</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>McDyer</td>
<td>John</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>McVerry</td>
<td>Bryan</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Metha</td>
<td>Barbara</td>
<td>Visiting Professor of Medicine</td>
</tr>
<tr>
<td>Milosevic</td>
<td>Jadranka</td>
<td>Research Associate</td>
</tr>
<tr>
<td>Morrell</td>
<td>Matthew</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Morris Gimbel</td>
<td>Alison</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Myerburg</td>
<td>Michael</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Nouraie</td>
<td>Seyed</td>
<td>Visiting Associate Professor of Medicine</td>
</tr>
<tr>
<td>Nyunoya</td>
<td>Toru</td>
<td>Visiting Associate Professor of Medicine</td>
</tr>
<tr>
<td>O'Donnell</td>
<td>Christopher</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Oriss</td>
<td>Timothy</td>
<td>Research Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Patel</td>
<td>Sanjay</td>
<td>Visiting Professor of Medicine</td>
</tr>
<tr>
<td>Petrov</td>
<td>Andrej</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Pilewski</td>
<td>Joseph</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Pipeling</td>
<td>Matthew</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Popescu</td>
<td>Iulia-Dana</td>
<td>Research Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Poropatich</td>
<td>Ronald</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Qin</td>
<td>Shulin</td>
<td>Research Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Qu</td>
<td>Yanyan</td>
<td>Research Associate</td>
</tr>
<tr>
<td>Ray</td>
<td>Anuradha</td>
<td>PhD Student</td>
</tr>
<tr>
<td>Ray</td>
<td>Prabir</td>
<td>PhD Professor of Medicine</td>
</tr>
<tr>
<td>Reddy</td>
<td>Raju</td>
<td>Visiting Associate Professor of Medicine</td>
</tr>
<tr>
<td>Risbano</td>
<td>Michael</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Rivera Lebron</td>
<td>Belinda</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Robinson</td>
<td>Keven</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Rojas</td>
<td>Mauricio</td>
<td>Visiting Associate Professor of Medicine</td>
</tr>
<tr>
<td>Scirba</td>
<td>Frank</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Strollo</td>
<td>Patrick</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Tan</td>
<td>Jianguing</td>
<td>Research Associate</td>
</tr>
<tr>
<td>Tedrow</td>
<td>John</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Tejero Bravo</td>
<td>Jesus</td>
<td>PhD Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Tofovic</td>
<td>Stevan</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Last Name</td>
<td>First Name</td>
<td>Prefix</td>
</tr>
<tr>
<td>-----------</td>
<td>------------</td>
<td>--------</td>
</tr>
<tr>
<td>Veraldi</td>
<td>Kristen</td>
<td>L.</td>
</tr>
<tr>
<td>Vuga</td>
<td>Louis</td>
<td>J.</td>
</tr>
<tr>
<td>Weathington</td>
<td>Nathan</td>
<td>M.</td>
</tr>
<tr>
<td>Wenzel</td>
<td>Sally</td>
<td>E.</td>
</tr>
<tr>
<td>Wilson</td>
<td>David</td>
<td>O.</td>
</tr>
<tr>
<td>Winnica</td>
<td>Daniel</td>
<td>E.</td>
</tr>
<tr>
<td>Xiong</td>
<td>Zeyu</td>
<td>MD</td>
</tr>
<tr>
<td>Xu</td>
<td>Qinzi</td>
<td>MD</td>
</tr>
<tr>
<td>Yu</td>
<td>Shijing</td>
<td>PhD</td>
</tr>
<tr>
<td>Zhang</td>
<td>Yingze</td>
<td>PhD</td>
</tr>
<tr>
<td>Zhao</td>
<td>Jinming</td>
<td>PhD</td>
</tr>
<tr>
<td>Zhao</td>
<td>Yutong</td>
<td>MD, PhD</td>
</tr>
<tr>
<td>Zhou</td>
<td>Xiuxia</td>
<td>PhD</td>
</tr>
<tr>
<td>Zou</td>
<td>Chunbin</td>
<td>MD, PhD</td>
</tr>
</tbody>
</table>

**Affiliated Faculty with UPP Appointments**

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>Prefix</th>
<th>Degree</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>DeLuna</td>
<td>Joy</td>
<td>L.</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Fernainy</td>
<td>Khaled</td>
<td>E.</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Fitzpatrick</td>
<td>Meghan</td>
<td>E.</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Gupta</td>
<td>Shikha</td>
<td>MD</td>
<td></td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Haider</td>
<td>Syed</td>
<td>S.</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Iqbal</td>
<td>Fatima</td>
<td>MD</td>
<td></td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Jernigan</td>
<td>Paula*</td>
<td>M.</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Kilaru</td>
<td>Silpa</td>
<td>D.</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Kim</td>
<td>Dong</td>
<td>H.</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Koch</td>
<td>Carl</td>
<td>D.</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Lanz</td>
<td>James</td>
<td>K.</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Lee</td>
<td>E. J.</td>
<td>MD</td>
<td></td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Lendermon</td>
<td>Elizabeth</td>
<td>A.</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Maniatis</td>
<td>Nikolaos</td>
<td>MD</td>
<td></td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>McComb</td>
<td>Jennifer</td>
<td>G.</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Okwiya</td>
<td>Victor</td>
<td>K.</td>
<td>MD</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Rafkin</td>
<td>Harry</td>
<td>S.</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Reinerhz</td>
<td>Anella</td>
<td>T.</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Rose</td>
<td>Jason</td>
<td>MD</td>
<td></td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Scheunemann</td>
<td>Leslie</td>
<td>P.</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Schuster</td>
<td>Rachel</td>
<td>A.</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Shah</td>
<td>Faraz</td>
<td>A.</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Stiller</td>
<td>Ronald</td>
<td>A.</td>
<td>MD</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Traister</td>
<td>Russell</td>
<td>S.</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Weinberg</td>
<td>Joel</td>
<td>H.</td>
<td>MD</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Yee</td>
<td>Emily</td>
<td>L.</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Zemke</td>
<td>Anna</td>
<td>C.</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
</tbody>
</table>
### Affiliated Faculty without UPP Appointments

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>MI</th>
<th>Degree</th>
<th>Primary Title</th>
<th>Division</th>
<th>Previous Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chaudhry</td>
<td>Mehboob</td>
<td>K.</td>
<td>MD</td>
<td>Clinical Associate Professor of Medicine</td>
<td>Pulmonary</td>
<td></td>
</tr>
<tr>
<td>Dauby</td>
<td>Pierrealain</td>
<td>L.</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td>Pulmonary</td>
<td></td>
</tr>
<tr>
<td>Koliner</td>
<td>Charles</td>
<td>M.</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td>Pulmonary</td>
<td></td>
</tr>
<tr>
<td>Qayyum</td>
<td>Azmat</td>
<td>MD</td>
<td></td>
<td>Clinical Assistant Professor of Medicine</td>
<td>Pulmonary</td>
<td></td>
</tr>
<tr>
<td>Viti</td>
<td>Craig</td>
<td>G.</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td>Pulmonary</td>
<td></td>
</tr>
</tbody>
</table>

### Affiliated Faculty without UPP Appointments

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>MI</th>
<th>Degree</th>
<th>Primary Title</th>
<th>Division</th>
<th>Previous Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aarons</td>
<td>Jerome</td>
<td>H.</td>
<td>MD</td>
<td>Clinical Professor of Medicine</td>
<td>Pulmonary</td>
<td></td>
</tr>
<tr>
<td>Bahl</td>
<td>Vijay</td>
<td></td>
<td>MD</td>
<td>Clinical Professor of Medicine</td>
<td>Pulmonary</td>
<td></td>
</tr>
<tr>
<td>Bahl</td>
<td>Sachin</td>
<td>MD</td>
<td></td>
<td>Clinical Assistant Professor of Medicine</td>
<td>Pulmonary</td>
<td></td>
</tr>
<tr>
<td>Biyani</td>
<td>Archana</td>
<td>MD</td>
<td></td>
<td>Clinical Assistant Professor of Medicine</td>
<td>Pulmonary</td>
<td></td>
</tr>
<tr>
<td>Casu</td>
<td>Anna</td>
<td>MD</td>
<td></td>
<td>Clinical Assistant Professor of Medicine</td>
<td>Pulmonary</td>
<td></td>
</tr>
<tr>
<td>Codario Jr.</td>
<td>Ronald</td>
<td>A.</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
<td>Pulmonary</td>
<td></td>
</tr>
<tr>
<td>Grimes</td>
<td>Bernard</td>
<td>J.</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
<td>Pulmonary</td>
<td></td>
</tr>
<tr>
<td>Hagg</td>
<td>Sigrid</td>
<td>A.</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td>Pulmonary</td>
<td></td>
</tr>
<tr>
<td>Johnston</td>
<td>Jann</td>
<td>M.</td>
<td>MD</td>
<td>Clinical Associate Professor of Medicine</td>
<td>Pulmonary</td>
<td></td>
</tr>
<tr>
<td>Martin</td>
<td>Emily</td>
<td>R.</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
<td>Pulmonary</td>
<td></td>
</tr>
<tr>
<td>Schmeltz</td>
<td>Ralph</td>
<td>MD</td>
<td></td>
<td>Clinical Professor of Medicine</td>
<td>Pulmonary</td>
<td></td>
</tr>
<tr>
<td>Varma</td>
<td>Swarna</td>
<td>MD</td>
<td></td>
<td>Clinical Instructor in Medicine</td>
<td>Pulmonary</td>
<td></td>
</tr>
</tbody>
</table>

### New Faculty Hires

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>MI</th>
<th>Degree</th>
<th>Primary Title</th>
<th>Division</th>
<th>Previous Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chang</td>
<td>Baojun</td>
<td>MD</td>
<td>Research Instructor in Medicine</td>
<td>Pulmonary</td>
<td>Associate Staff Scientist, Oklahoma Medical Research Foundation, OK</td>
<td></td>
</tr>
<tr>
<td>Chiarchiaro</td>
<td>Jared</td>
<td>MD</td>
<td>Assistant Professor of Medicine</td>
<td>Pulmonary</td>
<td>Pulmonary and Critical Care Fellow, University of Pittsburgh</td>
<td></td>
</tr>
<tr>
<td>Jang</td>
<td>Jun Ho</td>
<td>PhD</td>
<td>Research Instructor in Medicine</td>
<td>Pulmonary</td>
<td>Associate Research Scientist, New Mexico VA Health Care System, NM</td>
<td></td>
</tr>
<tr>
<td>Koch</td>
<td>Carl</td>
<td>D.</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
<td>Pulmonary</td>
<td>Pulmonary and Critical Care Fellow, University of Pittsburgh</td>
</tr>
<tr>
<td>Methe</td>
<td>Barbara</td>
<td>PhD</td>
<td>Visiting Professor of Medicine</td>
<td>Pulmonary</td>
<td>Professor, J. Craig Venter Institute, MD</td>
<td></td>
</tr>
<tr>
<td>Nouraie</td>
<td>Seyed</td>
<td>M.</td>
<td>PhD</td>
<td>Visiting Associate Professor of Medicine</td>
<td>Pulmonary</td>
<td>Assistant Professor, Howard U., DC</td>
</tr>
<tr>
<td>Nyunoya</td>
<td>Toru</td>
<td>MD</td>
<td>Visiting Associate Professor of Medicine</td>
<td>Pulmonary</td>
<td>Assistant Professor, University of New Mexico, NM</td>
<td></td>
</tr>
<tr>
<td>Patel</td>
<td>Sanjay</td>
<td>R.</td>
<td>MD</td>
<td>Visiting Professor of Medicine</td>
<td>Pulmonary</td>
<td>Associate Professor, Havard Medical School, MA</td>
</tr>
<tr>
<td>Shah</td>
<td>Faraaz</td>
<td>A.</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
<td>Pulmonary</td>
<td>Pulmonary and Critical Care Fellow, University of Pittsburgh</td>
</tr>
</tbody>
</table>
## POST DOCS

### Current Post Docs in FY 2015-2016

<table>
<thead>
<tr>
<th>Employee Last Name</th>
<th>Employee First Name</th>
<th>Degree Code</th>
<th>Current Title</th>
<th>Summary of activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alvarez Villa</td>
<td>Diana</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Alvarez Villa works under the guidance of Mauricio Rojas MD. Her project is to collect and analyze data for several projects in the lab, focusing mainly on the study of the ex-vivo lung perfusion and transplantation in human and animal models, as well as the characterization of normal and diseased lung fibroblasts. Additionally, she is involved in projects studying the role of mesenchymal stem cells in pulmonary diseases.</td>
</tr>
<tr>
<td>An</td>
<td>Ping</td>
<td>PhD</td>
<td>Research Associate</td>
<td>Dr. An works under the guidance of Divay Chandra MD and Yingze Zhang PhD. Her research is investigating the pathogenesis of COPD and IPF, dissecting the molecular and cellular mechanisms associated with COPD and IPF.</td>
</tr>
<tr>
<td>Bahudhanapati</td>
<td>Harinathac ha</td>
<td>PhD</td>
<td>Research Associate</td>
<td>Dr. Bahudhanapati’s research focuses on the molecular and genetic basis of idiopathic pulmonary fibrosis (IPF) and related diseases. He works under the guidance of Drs. Daniel Kass and Yingze Zhang.</td>
</tr>
<tr>
<td>Barbash</td>
<td>Ian</td>
<td>MD</td>
<td>Postdoctoral Scholar</td>
<td>Dr. Barbash works under the guidance of Dr. Jeremy Kahn. His research examines how we measure quality in the ICU, and how the reporting of those metrics affects care.</td>
</tr>
<tr>
<td>Chakraborty</td>
<td>Krishnendu</td>
<td>PhD</td>
<td>Research Associate</td>
<td>Dr. Chakraborty works under the guidance of Prabir Ray PhD. His research involves studying innate immune mechanisms in the lung that help to fight bacterial pathogens and restore homeostasis during pneumonia.</td>
</tr>
<tr>
<td>Chen</td>
<td>Jie</td>
<td>MS</td>
<td>Health Science Research Fellow</td>
<td>Ms. Jie works under the guidance of Anuradha Ray PhD. Her work involves projects focused on immune responses in the lung in response to allergens and infectious agents (viruses and bacteria).</td>
</tr>
<tr>
<td>Das</td>
<td>Sudipta</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Das works under the guidance of Prabir Ray PhD. She is participating in a research project investigating immune-epithelial cell interactions in defense against the respiratory virus, respiratory syncytial virus (RSV).</td>
</tr>
<tr>
<td>Gauthier</td>
<td>Mark</td>
<td>MD</td>
<td>Postdoctoral Scholar</td>
<td>Dr. Gauthier works under the guidance of Drs. Sally Wenzel and Anuradha Ray. His research project is looking at the immunology of severe asthma. He is researching the effects of carious cytokines on glucocorticoid receptor translocation and on the downstream effects of glucocorticoids in airway epithelial cells and immune cells (T-Cells, macrophage, DCs).</td>
</tr>
<tr>
<td>Guo</td>
<td>Lanping</td>
<td>MD</td>
<td>Research Associate</td>
<td>Dr. Guo works under the guidance of Christopher O’Donnell PhD. Her research studies the mechanisms of insulin resistance in an animal model of sleep apnea and the mechanisms of sleep disturbance in an animal model of Post-Traumatic Stress Disorder, respectively. Both studies are physiologically based and involve sophisticated animal models with chronic instrumentation requiring technically challenging microvascular techniques.</td>
</tr>
</tbody>
</table>
### Terminating Post Docs in FY 2015-2016

<table>
<thead>
<tr>
<th>Employee Last Name</th>
<th>Employee First Name</th>
<th>Degree Code</th>
<th>Current Title</th>
<th>Summary of activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Han</td>
<td>Seung Hye</td>
<td>MD, MPH</td>
<td>Postdoctoral Associate</td>
<td>Dr. Han is working under the guidance of Rama Mallampalli MD. She is researching the relationship between bacterial endotoxins and inflammasomes in the disease process of acute respiratory distress syndrome (ARDS).</td>
</tr>
<tr>
<td>Hoji</td>
<td>Aki</td>
<td>PhD</td>
<td>Research Associate</td>
<td>Dr. Hoji works under the guidance of John McDyer MD. His research involves infecting CD4+ T cells with HIV in vitro and performing co-culture studies along with lung parenchymal cells to determine whether this leads to lung cell injury and, if so, to identify the underlying immune mechanisms. In addition, he has a project designed to study antibody-producing cell populations in the peripheral blood from lung transplant recipients with/without antibody-mediated rejection before and after treatment.</td>
</tr>
<tr>
<td>Hu</td>
<td>Jian</td>
<td>MD, PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Hu works in the laboratory of Ana Mora MD. He performs complex survival and terminal surgical procedures in small animals (rats and mice) to produce models of disease.</td>
</tr>
<tr>
<td>Inoue</td>
<td>Hideki</td>
<td>MD</td>
<td>Research Associate</td>
<td>Dr. Inoue works under the guidance of Sally Wenzel, MD. His research is evaluating the impact of IL-27 on epithelial cells in asthma, utilizing air liquid interface culture systems, alone and in combination with Interferon gamma and IL-13.</td>
</tr>
<tr>
<td>Kitsios</td>
<td>Georgios</td>
<td>MD, PhD</td>
<td>Postdoctoral Scholar</td>
<td>Dr. Kitsios works under the guidance of Drs. Alison Morris and Bryan McVerry. His research explores the interactions between microbiota and the human host in periods of critical illness, involving disease processes such as sepsis and acute respiratory distress syndrome. He analyzes human samples for microbial colonies in different parts of the human body (gut, lungs, oral cavity) as well as perturbations of the microbiome with acute illness. He hopes to better understand the role of microbiome in critical illness’s outcome and to define new pathways for therapies via manipulations of the microbiome.</td>
</tr>
<tr>
<td>Koch</td>
<td>Carl</td>
<td>MD</td>
<td>Postdoctoral Scholar</td>
<td>Dr. Koch works under the guidance of Alison Morris MD. His research, which is focused on reduction of nitrate to nitrite and nitric oxide by commensal oral bacteria, has recently demonstrated clinical significance and is now implicated in the maintenance and pathogenesis of systemic cardiovascular function. Concurrently, the study of human microbial populations, the microbiome, has shown strong associations between changes in resident microbial populations and multiple manifestations of clinical disease. Working with a population of HIV-infected individuals, a population that is particularly at high risk for development of cardiovascular disease, this study focuses on changes in the human oral microbiome and their functional impact on bacterial nitrate reduction as it relates to the development and severity of cardiovascular disease.</td>
</tr>
<tr>
<td>Lai</td>
<td>Yandong</td>
<td>MD</td>
<td>Visiting Scholar</td>
<td>Dr. Lai works under the guidance of Chunbin Zou MD PhD. Her research is aimed at understanding the mechanisms of deregulated epigenetic enzymes in acute lung injury.</td>
</tr>
<tr>
<td>Li</td>
<td>Hui Hua</td>
<td>MD</td>
<td>Research Associate</td>
<td>Dr. Li works under Dr. Ming-hui Fan’s guidance, investigating the pathogenesis of lung fibrosis.</td>
</tr>
<tr>
<td>Li</td>
<td>Shuang</td>
<td>MD</td>
<td>Visiting Scholar</td>
<td>Dr. Li works under the guidance of Yutong Zhao MD PhD. She is researching the role of deubiquitinating enzymes in lung repair after injury.</td>
</tr>
<tr>
<td>Employee Last Name</td>
<td>Employee First Name</td>
<td>Degree Code</td>
<td>Current Title</td>
<td>Summary of activities</td>
</tr>
<tr>
<td>--------------------</td>
<td>---------------------</td>
<td>-------------</td>
<td>---------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>Li Xiuying</td>
<td>PhD</td>
<td>Visiting Scholar</td>
<td>Dr. Li works under the guidance of Chunbin Zou MD PhD. She is researching the deregulation of protein methyltransferase 4 in acute lung injury, using molecular, cellular biological and biochemical approaches.</td>
<td></td>
</tr>
<tr>
<td>Londino James</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Londino works under the guidance of Rama Mallampalli MD. He is studying the molecular and biochemical behavior of ubiquitin E3 ligases in acute lung injury.</td>
<td></td>
</tr>
<tr>
<td>Minami Yoshinori</td>
<td>MD, PhD</td>
<td>Visiting Scholar</td>
<td>Dr. Minami works under the guidance of Sally Wenzel MD. His epithelial cell studies in asthmatic and healthy controls focus on the role of 15 LO1 in Beta-2 adrenergic receptor desensitization, both in in vitro and in ex vivo samples.</td>
<td></td>
</tr>
<tr>
<td>Nan Ling</td>
<td>MD</td>
<td>Visiting Scholar</td>
<td>Dr. Nan works under the guidance of Yutong Zhao PhD. Her research focuses on Acute Lung Injury.</td>
<td></td>
</tr>
<tr>
<td>Neelakandan Logeswari</td>
<td>PhD</td>
<td>Visiting Scholar</td>
<td>Dr. Neelakandan is working under the guidance of Sally Wenzel MD, and her research is related to severe autoimmune asthma.</td>
<td></td>
</tr>
<tr>
<td>Nguyen Quyen</td>
<td>MD</td>
<td>Postdoctoral Scholar</td>
<td>Dr. Nguyen works under the guidance of Srut Shiva PhD. Her research centers on why pulmonary hypertension leads to right ventricular failure, which results in death. The subcellular mechanisms underlying right ventricular dysfunction in pulmonary hypertension are incompletely understood. Previous studies have shown derangements in cardiac cellular energy metabolism in human and experimental pulmonary hypertension. Mitochondria play a central role in cardiac metabolism, particularly in cardiac muscle cells. We hypothesize that mitochondrial dysfunction underlies right ventricular failure in pulmonary hypertension. We propose a comprehensive investigation of mitochondrial function on the course to right ventricular failure in a pulmonary artery banding animal model of pulmonary hypertension.</td>
<td></td>
</tr>
<tr>
<td>Qu Yanyan</td>
<td>PhD</td>
<td>Research Associate</td>
<td>Dr. Qu works under the guidance of Janet Lee MD. She works on in vivo models of lung inflammation and injury and conducts cell-based studies to examine phagocyte responses following various models of injury.</td>
<td></td>
</tr>
<tr>
<td>Rose Jason</td>
<td>MD</td>
<td>Postdoctoral Scholar</td>
<td>Dr. Rose works under the guidance of Mark Gladwin MD. His research involves: 1) Testing the hypothesis that neuroglobin H64 substitutions produce a five-coordinate neuroglobin that binds CO with an affinity much higher than that of hemoglobin. 2) Testing the hypothesis that five-coordinate mutant neuroglobin rapidly removes CO in vivo in CO poisoned mice 3) Testing the effect of five-coordinate mutant neuroglobin therapy on brain mitochondrial respiration, cellular necrosis and apoptosis, and cognitive dysfunction in CO-poisoned mice and a large animal model. 4) Working on developing an orphan drug application for Neuroglobin H64 5) Researching current standards of care and outcomes for CO poisoning in an large regional clinical databank.</td>
<td></td>
</tr>
<tr>
<td>Sellares-Torres Jacobo</td>
<td>MD/PhD</td>
<td>Visiting Scholar</td>
<td>Dr. Sellares-Torres is working on the team of Drs. Daniel Kass and Mauricio Rojas. His research focuses on idiopathic pulmonary fibrosis (IPF) and related diseases.</td>
<td></td>
</tr>
<tr>
<td>Shah Faraaz</td>
<td>MD</td>
<td>Postdoctoral Scholar</td>
<td>Dr. Shah works under the guidance of Drs. O'Donnell and McVerry. His research project seeks to better understand the development of hyperglycemia during sepsis.</td>
<td></td>
</tr>
</tbody>
</table>
PUBLICATIONS

High Impact Publications


There is controversy about how to manage requests by patients or surrogates for treatments that clinicians believe should not be administered.

This multisociety statement provides recommendations to prevent and manage intractable disagreements about the use of such treatments in intensive care units.

These recommendations were developed using an iterative consensus process, including expert committee development and peer review by designated committees of each of the participating professional societies (American Thoracic Society, American Association for Critical Care Nurses, American College of Chest Physicians, European Society for Intensive Care Medicine, and Society of Critical Care).

The committee recommends: (1) Institutions should implement strategies to prevent intractable treatment conflicts, including proactive communication and early involvement of expert consultants. (2) The term “potentially inappropriate” should be used, rather than futile, to describe treatments that have at least some chance of accomplishing the effect sought by the patient, but clinicians believe that competing ethical considerations justify not providing them. Clinicians should explain and advocate for the treatment plan they believe is appropriate. Conflicts regarding potentially inappropriate treatments that remain intractable despite intensive communication and negotiation should be managed by a fair process of conflict resolution; this process should include hospital review, attempts to find a willing provider at another institution, and opportunity for external review of decisions. When time pressures make it infeasible to complete all steps of the conflict-resolution process—and clinicians have a high degree of certainty that the requested treatment is outside accepted practice—they should seek procedural oversight to the extent allowed by the clinical situation and they need not provide the requested treatment. (3) Use of the term “futile” should be restricted to the rare situations in which surrogates request interventions that simply cannot accomplish their intended physiologic goal. Clinicians should not provide futile interventions. (4) The medical profession should lead public engagement efforts and advocate for policies and legislation about when life-prolonging technologies should not be used.

The multisociety statement on responding to requests for potentially inappropriate treatments in intensive care units provides guidance for clinicians to prevent and manage disputes in patients with advanced critical illness.


Airway surface liquid hyperabsorption and mucus accumulation are key elements of cystic fibrosis lung disease that can be assessed in vivo using functional imaging methods. In this study, we evaluated experimental factors affecting measurements of mucociliary clearance (MCC) and small-molecule absorption (ABS) and patient factors associated with abnormal absorption and mucus clearance. Our imaging technique
utilized two radiopharmaceutical probes delivered by inhalation. Measurement repeatability was assessed in 10 adults with cystic fibrosis. Experimental factors were assessed in 29 adult and pediatric cystic fibrosis subjects (51 scans). Patient factors were assessed in a subgroup with optimal aerosol deposition (37 scans; 24 subjects). Pediatric subjects (n=9) underwent initial and 2-year follow-up scans. Control subjects from a previously reported study are included for comparison. High rates of central aerosol deposition influenced measurements of ABS and, to a lesser extent, MCC. Depressed MCC in cystic fibrosis was only detectable in subjects with previous Pseudomonas aeruginosa infection. Cystic fibrosis subjects without P. aeruginosa had similar MCC to control subjects. Cystic fibrosis subjects had consistently higher ABS rates. We conclude that the primary experimental factor affecting MCC/ABS measurements is central deposition percentage. Depressed MCC in cystic fibrosis is associated with P. aeruginosa infection. ABS is consistently increased in cystic fibrosis.


Preliminary clinical trials have demonstrated that endobronchial coils compress emphysematous lung tissue and may improve lung function, exercise tolerance, and symptoms in patients with emphysema and severe lung hyperinflation. The objective of this randomized clinical trial study was to determine the effectiveness and safety of endobronchial coil treatment. The trial recruited 315 patients with emphysema and severe air trapping from 21 North American and five European sites between December 2012 and November 2015. Participants were randomly assigned to continue usual care alone (guideline based, including pulmonary rehabilitation and bronchodilators; n = 157) vs usual care plus bilateral coil treatment (n = 158), involving two sequential procedures four months apart, in which 10 to 14 coils were bronchoscopically placed in a single lobe of each lung.

The primary effectiveness outcome was difference in absolute change in six-minute-walk distance between baseline and 12 months (minimal clinically important difference [MCID], 25 m). Secondary end points included the difference between groups in six-minute walk distance responder rate, absolute change in quality of life using the St George’s Respiratory Questionnaire (MCID, 4) and change in forced expiratory volume in the first second (FEV1; MCID, 10%). The primary safety analysis compared the proportion of participants experiencing at least 1 of 7 prespecified major complications.

Among 315 participants (mean age, 64 years; 52% women), 90% completed the 12-month follow-up. Median change in six-minute walk distance at 12 months was 10.3 m with coil treatment vs -7.6 m with usual care, with a between-group difference of 14.6 m (Hodges-Lehmann 97.5% CI, 0.4 m to ∞; 1-sided P = .02). Improvement of at least 25 m occurred in 40.0% of patients in the coil group vs 26.9% with usual care (odds ratio, 1.8 [97.5% CI, 1.1 to ∞]; unadjusted between-group difference, 11.8% [97.5% CI, 1.0% to ∞]; 1-sided P = .01). The between-group difference in median change in FEV1 was 7.0% (97.5% CI, 3.4% to ∞; 1-sided P < .001), and the between-group difference in median change in St George’s Respiratory Questionnaire score improved -8.9 points (97.5% CI, -∞ to -6.3 points; 1-sided P < .001), each favoring the coil group. Major complications (including pneumonia requiring hospitalization and other potentially life-threatening or fatal events) occurred in 34.8% of coil participants vs 19.1% of usual care (P = .002). Other serious adverse events including pneumonia (20% coil vs 4.5% usual care) and pneumothorax (9.7% vs 0.6%, respectively) occurred more frequently in the coil group.

Among patients with emphysema and severe hyperinflation treated for 12 months, the use of endobronchial coils compared with usual care resulted in an improvement in median exercise tolerance that was modest and of uncertain clinical importance, with a higher likelihood of major complications. Further follow-up is needed to assess long-term effects on health outcomes.

Longitudinal studies of the lung microbiome are challenging due to the invasive nature of sample collection. In addition, studies of the lung microbiome in human disease are usually performed after disease onset, limiting the ability to determine early events in the lung. We used a non-human primate model to assess lung microbiome alterations over time in response to an HIV-like immunosuppression and determined the impact of the lung microbiome on development of obstructive lung disease. Cynomolgous macaques were infected with the SIV-HIV chimeric virus SHIV89.6P. Bronchoalveolar lavage fluid samples were collected pre-infection and every 4 weeks for 53 weeks post-infection. The microbiota was characterized at each time point by 16S ribosomal RNA (rRNA) sequencing.

We observed individual variation in the composition of the lung microbiota with a proportion of the macaques having Tropheryma whipplei as the dominant organism in their lungs. Bacterial communities varied over time both within and between animals, but there did not appear to be a systematic alteration due to SHIV infection. Development of obstructive lung disease in the SHIV-infected animals was characterized by a relative increase in abundance of oral anaerobes. Network analysis further identified a difference in community composition that accompanied the development of obstructive disease with negative correlations between members of the obstructed and non-obstructed groups. This emphasizes how species shifts can impact multiple other species, potentially resulting in disease.

This study is the first to investigate the dynamics of the lung microbiota over time and in response to immunosuppression in a non-human primate model. The persistence of oral bacteria in the lung and their association with obstruction suggest a potential role in pathogenesis. The lung microbiome in the non-human primate is a valuable tool for examining the impact of the lung microbiome in human health and disease.


Dupilumab, a fully human anti-interleukin-4 receptor α monoclonal antibody, inhibits interleukin-4 and interleukin-13 signaling, key drivers of type-2-mediated inflammation. Adults with uncontrolled persistent asthma who are receiving medium-to-high-dose inhaled corticosteroids, plus a long-acting β2 agonist, require additional treatment options as add-on therapy. We aimed to assess the efficacy and safety of dupilumab as add-on therapy in patients with uncontrolled persistent asthma on medium-to-high-dose inhaled corticosteroids plus a long-acting β2 agonist, irrespective of baseline eosinophil count.

We did this randomized, double-blind, placebo-controlled, parallel-group, pivotal phase 2b clinical trial at 174 study sites across 16 countries or regions. Adults (aged ≥18 years) with an asthma diagnosis for 12 months or more based on the Global Initiative for Asthma 2009 Guidelines receiving treatment with medium-to-high-dose inhaled corticosteroids plus a long-acting β2 agonist were eligible for participation. Patients were randomly assigned (1:1:1:1:1) to receive subcutaneous dupilumab 200 mg or 300 mg every two weeks or every four weeks, or placebo, over a 24-week period. The primary endpoint was change from baseline at week 12 in forced expiratory volume in 1 s (FEV1 in L) in patients with baseline blood eosinophil counts of at least 300 eosinophils per μL assessed in the intention-to-treat population. Safety outcomes were assessed in all patients that received at least one dose or part of a dose of study drug. This trial is registered at
ClinicalTrials.gov, number NCT01854047, and with the EU Clinical Trials Register, EudraCT number 2013-000856-16.

769 patients (158 in the placebo group and 611 in the dupilumab groups) received at least one dose of study drug. In the subgroup with at least 300 eosinophils per μL, the greatest increases (200 mg every 2 weeks, p=0.0008; 300 mg every 2 weeks, p=0.0063) in FEV1 compared with placebo were observed at week 12 with doses every 2 weeks in the 300 mg group (mean change 0.39 L [SE 0.05]; mean difference 0.21 [95% CI 0.06-0.36; p=0.0063]) and in the 200 mg group (mean change 0.43 L [SE 0.05]; mean difference 0.26 [0.11-0.40; p=0.0008]) compared with placebo (0.18 L [SE 0.05]). Similar significant increases were observed in the overall population and in the fewer than 300 eosinophils per μL subgroup (overall population: 200 mg every 2 weeks, p<0.0001; 300 mg every 2 weeks, p<0.0001; <300 eosinophils per μL: 200 mg every 2 weeks, p=0.0034; 300 mg every 2 weeks, p=0.0086), and were maintained to week 24. Likewise, dupilumab every 2 weeks produced the greatest reductions in annualized rates of exacerbation in the overall population (70-70.5%), the subgroup with at least 300 eosinophils per μL (71.2-80.7%), and the subgroup with fewer than 300 eosinophils per μL (59.9-67.6%). The most common adverse events with dupilumab compared with placebo were upper respiratory tract infections (33-41% vs 35%) and injection-site reactions (13-26% vs 13%).

Dupilumab increased lung function and reduced severe exacerbations in patients with uncontrolled persistent asthma, irrespective of baseline eosinophil count and had a favourable safety profile. Hence, Dupilumab, in addition to inhaled corticosteroids plus long-acting β2-agonist therapy, could improve the lives of patients with uncontrolled persistent asthma compared with standard therapy alone.


Severe asthma is a complex heterogeneous disease associated with older age and obesity. The presence of eosinophilic (type 2) inflammation in some, but not all, patients with severe asthma predicts responsiveness to current treatments, but new treatment approaches will require a better understanding of non-type 2 mechanisms of severe asthma. We considered the possibility that systemic inflammation, which arises in subgroups of obese and older patients, increases the severity of asthma. Interleukin-6 (IL-6) is a biomarker of systemic inflammation and metabolic dysfunction, and we aimed to explore the association between IL-6 concentrations, metabolic dysfunction, and asthma severity.

In this cross-sectional analysis, patients were recruited from two cohorts: mainly non-severe asthmatics from the University of California San Francisco (UCSF) and mainly severe asthmatics from the Severe Asthma Research Program (SARP). We generated a reference range for plasma IL-6 in a cohort of healthy control patients. We compared the clinical characteristics of asthmatics with plasma IL-6 concentrations above (IL-6 high) and below (IL-6 low) the upper 95% centile value for plasma IL-6 concentration in the healthy cohort. We also compared how pulmonary function, frequency of asthma exacerbations, and frequency of severe asthma differed between IL-6 low and IL-6 high asthma populations in the two asthma cohorts.

Between Jan 1, 2005, and Dec 31, 2014, we recruited 249 patients from UCSF and between Nov 1, 2012, and Oct 1, 2014, we recruited 387 patients from SARP. The upper 95th centile value for plasma IL-6 concentration in the healthy cohort (n=93) was 3.1 pg/mL, and 14% (36/249) of UCSF cohort and 26% (102/387) of the SARP cohort had plasma IL-6 concentrations above this upper limit. The IL-6 high patients in both asthma cohorts had a significantly higher average BMI (p<0.0001) and a higher prevalence of hypertension (p=0.0001) and diabetes (p=0.04) than the IL-6 low patients. IL-6 high patients also had significantly worse lung function and more frequent asthma exacerbations than IL-6 low patients (all p values <0.0001). Although 80% (111/138) of IL-6 high asthmatic patients were obese, 62% (178/289) of obese asthmatic patients were IL-6 low. Among obese patients, the forced expiratory volume in 1 s (FEV1) was
significantly lower in IL-6 high than in IL-6 low patients (mean percent predicted FEV1 = 70·8% [SD 19·5] vs 78·3% [19·7]; p=0·002), and the percentage of patients reporting an asthma exacerbation in the past 1-2 years was higher in IL-6 high than in IL-6 low patients (66% [73111] vs 48% [85178]; p=0·003). Among non-obese asthmatics, FEV1 values and the frequency of asthma exacerbations within the past 1-2 years were also significantly worse in IL-6 high than in IL-6 low patients (mean FEV1 66·4% [SD 23·1] vs 83·2% [20·4] predicted; p<0·0001; 59% [1627] vs 34% [108320]; p=0·01).

Systemic IL-6 inflammation and clinical features of metabolic dysfunction, which occur most commonly in a subset of obese asthma patients but also in a small subset of non-obese patients, are associated with more severe asthma. These data provide strong rationale to undertake clinical trials of IL-6 inhibitors or treatments that reduce metabolic dysfunction in a subset of patients with severe asthma. Plasma IL-6 is a biomarker that could guide patient stratification in these trials.


Severe asthma (SA) is a challenge to control, as patients are not responsive to high doses of systemic corticosteroids (CS). In contrast, mild-moderate asthma (MMA) is responsive to low doses of inhaled CS, indicating that Th2 cells, which are dominant in MMA, do not solely orchestrate SA development. Here, we analyzed bronchoalveolar lavage cells isolated from MMA and SA patients and determined that IFN-γ (Th1) immune responses are exacerbated in the airways of individuals with SA, with reduced Th2 and IL-17 responses. We developed a protocol that recapitulates the complex immune response of human SA, including the poor response to CS, in a murine model. Compared with WT animals, Ifng−/− mice subjected to this SA model failed to mount airway hyper responsiveness (AHR) without appreciable effect on airway inflammation. Conversely, AHR was not reduced in Il17ra−/− mice, although airway inflammation was lower. Computer-assisted pathway analysis tools linked IFN-γ to secretory leukocyte protease inhibitor (SLPI), which is expressed by airway epithelial cells, and IFN-γ inversely correlated with SLPI expression in SA patients and the mouse model. In mice subjected to our SA model, forced SLPI expression decreased AHR in the absence of CS, and it was further reduced when SLPI was combined with CS. Our study identifies a distinct immune response in SA characterized by a dysregulated IFN-γ/SLPI axis that affects lung function.


Inhalation of environmental antigens such as allergens does not always induce inflammation in the respiratory tract. While antigen-presenting cells (APCs), including dendritic cells and macrophages, take up inhaled antigens, the cell-intrinsic molecular mechanisms that prevent an inflammatory response during this process, such as activation of the transcription factor NF-κB, are not well understood. Here, we show that the nuclear receptor PPARγ plays a critical role in blocking NF-κB activation in response to inhaled antigens to preserve immune tolerance. Tolerance induction promoted mitochondrial respiration, generation of H2O2, and suppression of NF-κB activation in WT, but not PPARγ-deficient, APCs. Forced restoration of H2O2 in PPARγ-deficient cells suppressed IkBα degradation and NF-κB activation. Conversely, scavenging reactive oxygen species from mitochondria promoted IkBα degradation with loss of regulatory and promotion of inflammatory T cell responses in vivo. Thus, communication between PPARγ and the mitochondria maintains immune quiescence in the airways.

The term asthma encompasses a disease spectrum with mild to very severe disease phenotypes whose traditional common characteristic is reversible airflow limitation. Unlike milder disease, severe asthma is poorly controlled by the current standard of care. Ongoing studies using advanced molecular and immunological tools along with improved clinical classification show that severe asthma does not identify a specific patient phenotype, but rather includes patients with constant medical needs, whose pathobiologic and clinical characteristics vary widely. Accordingly, in recent clinical trials, therapies guided by specific patient characteristics have had better outcomes than previous therapies directed to any subject with a diagnosis of severe asthma. However, there are still significant gaps in our understanding of the full scope of this disease. This hinders the development of effective treatments for all severe asthmatics. In this Review, we discuss our current state of knowledge regarding severe asthma, highlighting different molecular and immunological pathways that can be targeted for future therapeutic development.

**Peer-Reviewed Publications: 2014, 2015, 2016**


Atwood CW. How few signals are needed to diagnose sleep apnea? Sleep. 2014 Dec 1;37(12):1883-4.


Denlinger LC, King T, Cardet JC, Craig T, Holguin F, Jackson DJ. Kraft M, Peters SP, Ross K, Sumino K, Boushey HA, Nizar N, Jarjour NN, Wechsler ME, Wenzel SE, Castro M, Avila PC. For the National Heart Lung and Blood Institute

Department of Medicine http://www.dom.pitt.edu/paccm


Gladwin MT, O'Donnell CP. Training pulmonary researchers to span the bench-to-bedside “Valley of Death.” Am J Respir Crit Care Med. 2014 Nov 1;190(9):977-80.


Kleyman TR, Myerburg MM. Proteases, ENaCs and cystic fibrosis. J Physiol. 2014 Dec 1;592(Pt 23):5145.


http://www.dom.pitt.edu/paccm


The Renal-Electrolyte Division is devoted to our core missions of clinical and academic excellence and to training the next generation of nephrologists. Our nephrologists provide a multidisciplinary approach to ensure the well-being and highest quality of care for patients with the most complex kidney and/or electrolyte disorders.

The Renal-Electrolyte Division has a large interdisciplinary group of investigators who study kidney/epithelial cell structure and function in health or disease states using the tools of physiology, cellular and molecular biology, biochemistry, and cell signaling. A growing cadre of investigators is addressing important clinical and translational questions relevant to individuals with kidney disease, covering a range of topics that include acute kidney injury, renal fibrosis, and transplant rejection. Investigators based at the Department of Veterans Affairs (VA) have led or are leading multicenter clinical studies focusing on the prevention of contrast-induced nephropathy, the management of diabetic nephropathy, and on dialysis intensity in the setting of acute kidney injury.

RESEARCH

Working in conjunction with groups at UPMC, the University of Pittsburgh, and the VA, the Renal-Electrolyte Division has developed a dynamic research program with expected total cost expenditures of approximately $7.0 million.

The division received major grants from the NIH, the VA, and private foundations that support research on a diverse array of topics, including protein trafficking, ion transport physiology, kidney pathophysiology, and transplant immunology. Grants also support multiple clinical research activities. Our Pittsburgh Center for Kidney Research is an NIDDK-funded O’Brien Kidney Research Core Center, one of seven centers nationwide. This center supports the research activities of 140 investigators with core facilities, pilot project grants, and educational opportunities. The Center also provides research opportunities for college undergraduate students. Division faculty lead an NIDDK-funded program project grant that is focused on spinal cord injury and associated urinary bladder disorders. Our VA physicians direct a multicenter cooperative study focused on strategies to prevent contrast-induced kidney injury, and have recently completed a multicenter cooperative study on therapeutics for diabetic nephropathy. Faculty members Lori Birder PhD, Gerard Apodaca PhD, and Thomas Kleyman MD, hold or recently held NIH MERIT awards.

Our trainees and junior faculty continue to be successful in obtaining extramural support. Kelly Liang MD is a recipient of an NIDDK K23 award and Shujie Shi is a recipient of an NIDDK K01 award. Evan Ray MD PhD and Mohammad Al-Bataineh DVM PhD will lead NIDDK K08 or K01 awards that start in early FY17. Roderick Tan MD PhD and Manisha Jhamb MD MPH are recipients of American Heart Association Fellow-to-Faculty Awards. William Hoffman MD and Cary Boyd-
ShiwarSKI MD PhD were selected to receive American Society of Nephrology Postdoctoral Fellowship Awards. To further support the training of graduate students, postdoctoral fellows, and medical students in renal research, the division hosts an NIDDK-funded T32 training grant and an NIDDK-funded T35 training grant.

Basic research interests include the following:

- Structure, function, and regulation of epithelial sodium, potassium, and chloride transporters
- Protein trafficking in epithelia
- Response of epithelia to biomechanical forces
- Regulation of protein folding and maturation
- Mechanisms of bladder epithelial injury
- Neural-epithelial interactions in the urinary bladder
- Biology of immune cell memory
- Genetics of complex diseases
- Pathogenesis of acute kidney injury
- Pathogenesis of chronic kidney disease

Clinical research interests include the following:

- Electronic medical record and CKD management
- Exercise in ESRD
- Sleep disorders and quality of life in the setting of CKD and ESRD
- ICU nephrology
- Acute kidney injury
- Contrast nephropathy
- Depression in the setting of kidney disease
- Diabetic nephropathy
- Health literacy
- Optimization of peritoneal dialysis
- Palliative care in the setting of advanced CKD and ESRD

In conjunction with the Pittsburgh Center for Kidney Research, the Department of Critical Care Medicine, the Starzl Transplant Institute and the Division of Pediatric Nephrology, the Renal-Electrolyte Division co-hosted the fifth annual University-wide retreat exploring acute kidney injury. The Renal-Electrolyte Division co-hosted the third annual nephrotic syndrome symposium in conjunction with the Division of Pediatric Nephrology and the Pittsburgh Center for Kidney Research. The Renal-Electrolyte Division also supported the annual Local Traffic symposium that is focused on protein trafficking, highlighting work by investigators at the University of Pittsburgh and Carnegie Mellon University.

NEW RESEARCH FUNDING
New research funding within the division included the following:

- Caty Baty DVM PhD was a co-investigator on “Interventions to Reduce Hypercoagulability in Old SIV-Infected NHPs” that was awarded a one-year grant from National Heart Lung and Blood Institute.
- Lori Birder PhD and Gerry Apodaca PhD were awarded an R56 grant, “Effect of Aging on Urothelial Function” from the National Institute of Aging.
- Linda Fried MD MPH was reappointed the CKD Pilot Trials Chair and awarded a one-year grant from National Institute of Diabetes and Digestive and Kidney Diseases.
- Rebecca Hughey PhD was awarded an R56 grant, “Role of Muc1 in Acute Kidney Injury” from National Institute of Diabetes and Digestive and Kidney Diseases.
- Manisha Jhamb MD MPH was a co-investigator on two-year “Prediction Modeling in Older Adults with Advanced CKD” with Vanderbilt University that was awarded a one-year grant.
- Anthony Kanai PhD was awarded a five year R01, “Critical Roles for Fibroblast Growth Factor Receptors in Bladder Development” from National Institute of Diabetes and Digestive and Kidney Diseases.
- Thomas Kleyman MD with Lisa Satlin at Mount Sinai, was awarded a four-year R01, “Maturation of K Transport in the Distal Nephron” from National Institute of Diabetes and Digestive and Kidney Diseases.
- Arohan Subramanya MD was awarded an R13, “Epithelial Transport Group Sessions at Experimental Biology 2016” from National Institute of Diabetes and Digestive and Kidney Diseases.
- Arohan Subramanya MD was a co-investigator on the R21, “Impact of Sleep on Chronobiology of Micturition” from National Institute of Aging.
- Arohan Subramanya MD was a co-investigator on the R01, “The Role of Na/H Exchanger in Cerebral Ischemia” from National Institute of Neurological Disorders and Stroke.
- Ora Weisz PhD was awarded an S10 award, "Integrated Perfusion and Confocal Imaging System" from NIH.

We anticipate that Geetha Chalasani MD will receive an R01 award in FY17 from the National Institute of Allergy and Infectious Disease.
Faculty Research Interests

Mohammad Al-Bataineh PhD
Dr. Al-Bataineh’s current research focuses primarily on studying the acute and chronic effects of the cell surface protein mucin 1 (Muc1) in regulating the b-catenin pathway during moderate and severe ischemia-reperfusion injury (IRI) in a mouse model.

Gerard Apodaca PhD
Dr. Apodaca’s lab studies the biology of the epithelial cells that line the inner surface of the bladder and ureters (urothelium), as well the cells that line the tubules that comprise the kidney nephron. His lab has three major projects: 1) Studies of stretch-regulated membrane traffic in umbrella cells. 2) Analysis of tight junction morphology and function in response to stretch. 3) Exploration of what the role is of uroplakins in urinary tract development and congenital anomalies of the kidney and urinary tract.

Catherine Baty DVM PhD
Dr. Baty’s research interests are the role of lymphatic vasculature in health and disease. She collaborated with geneticists Robert Ferrell PhD and David Finegold MD to first identify connexin mutations as a cause of lymphedema in humans. With her recent move into the Renal-Electrolyte Division, she has begun to investigate the role of renal lymphatics as well as to develop other live cell physiologic techniques including ex vivo kidney slice cultures and isolation and perfusion of renal proximal tubules.

Filitsa Bender MD FACP
Dr. Bender’s primary research interest continues to be the outcomes of patients with chronic kidney disease (CKD), mostly on peritoneal dialysis (PD). She is studying early outcomes in incident PD patients, and exit site infection prophylaxis in PD patients. She is also examining health literacy and outcomes in PD patients as well as the survival of patients with heart and lung transplant on PD and HD.

Jose Bernardo MD MPH FASN
Dr. Bernardo’s research centers on the areas of AKI, chronic dialysis, calcium/phosphorus metabolism, renal pharmacology in AKI, and transplantation. He completed a pilot study focused on characterizing cardiovascular health in patients on chronic dialysis in conjunction with Dr. Pinsky from Critical Care Medicine (CCM). He is participating in a multidisciplinary team effort to develop a phone application that will help patients to track their level of renal function following an episode of AKI. Dr. Bernardo is involved in QI projects to optimize the delivery of therapy in patients receiving continuous renal replacement therapy (CRRT).

Lori A. Birder PhD
Dr. Birder’s laboratory is interested in understanding the complexities of urinary bladder epithelial (urothelial) cell function and urothelial cell-neuronal interactions. Her investigations have revealed that the urothelium, a stratified epithelial layer that lines the bladder lumen, has the capacity to send signals to neighboring cells via the release of chemical mediators. This arrangement represents a departure from the conventional view of the urothelium as a simple barrier. Her goal is to further characterize the properties of urothelial cells and elucidate mechanisms impacting urothelial function. In addition, she is addressing how pathology affects mechanisms of urothelial communication, which may provide important insight into targets for new therapies for the clinical management of lower urinary tract disorders.

Marcelo D. Carattino PhD
Dr. Carattino’s lab focuses primarily on studying the function and physiological roles of acid-sensing ion channels (ASICs). These channels are expressed in the central and peripheral nervous system where they contribute to sensory processes such as mechanosensation and nociception. The research program’s goals are to elucidate the molecular basis underlying the function of ASICs and to identify targets in these proteins that can be used to develop inhibitors. A second area of research examines the biology and function of the umbrella cells that cover the surface of the bladder. These cells form an impermeable barrier that prevents the diffusion of urine constituents into the bladder interstitium.
Umbrella cells undergo profound shape changes as they transition in empty bladders from a roughly inverted umbrella shape to one that is flat and squamous in filled bladders. How these cells alter their shape in response to bladder filling while maintaining the integrity of the epithelial barrier is poorly understood. The goal of this project is understanding of the reorganization of umbrella cell tight junctions as bladders fill and deflate.

Geetha Chalasani MD
Dr. Chalasani's main interests in transplantation immunology are memory T cell biology and pathogenesis of chronic rejection. Her laboratory is focused on understanding how memory T cells are generated in transplantation. She is investigating B cell-T cell interactions in promoting T cell memory. Another area of research in her laboratory is gaining an understanding of the role of innate immune activation in the pathogenesis of chronic rejection.

Linda F. Fried MD MPH
Dr. Fried’s research focuses on two areas: the association of decreased kidney function with adverse outcomes in older individuals, including cardiovascular disease, functional decline, and change in body composition; and the progression of kidney disease, and in particular, diabetic nephropathy. Dr. Fried chaired a VA sponsored multi-center study on combination ACEI/ARB vs. ARB monotherapy on progression of diabetic nephropathy. She is the current steering committee chair for the NIDDK CKD pilot study consortium.

Sundaram Hariharan MD
Dr. Hariharan’s research is focused on further enhancement in long-term kidney transplant allograft survival. Areas of focus include: recurrent and de novo diseases after renal transplantation; BKV infection after renal transplantation and long-term kidney transplant survival; and identification of clinical and biomarkers predicting long-term kidney transplant outcome. He is exploring mechanistic aspects of sub-clinical acute rejection, with the goal of identifying sub-clinical acute rejection with non-invasive methods. Currently, he is working on identifying risk factors for subclinical rejection as well as the potential to treat subclinical rejection while preserving renal function and architecture. He is also researching the impact of subclinical rejection in patients developing delayed graft function after deceased donor transplantation and those developing de novo DSA after both living and decreased donor transplantation.

Kevin Ho MD
Dr. Ho is examining the role of cardiovascular ABCC9 gene genetic polymorphisms in the onset of type 1 diabetic kidney disease. He and his collaborators identified a novel phenotype for a calcium-sensing receptor (CaSR) mutation also associated with autosomal dominant hypocalcemia. Dr. Ho is participating in a Vascular Surgery effort to develop a decision analysis model for the selection of vascular access type in elderly hemodialysis patients.

William Hoffman MD
Dr. Hoffman’s main interests are in translational research, including characterizing memory B cell activation and its relationship to acute transplant allograft rejection.

Rebecca P Hughey PhD
Research in Dr. Hughey’s laboratory focuses on characterization of the assembly, processing and membrane trafficking of apically expressed glycoproteins in polarized kidney epithelial cells. She uses biochemistry and electrophysiology techniques to study the function of glycosylation, palmitoylation and proteolytic processing of model proteins such as the epithelial sodium channel (ENaC), gamma-glutamyltranspeptidase and the cell surface sensor MUC1. Her recent studies have revealed that ENaC is activated by a very novel mechanism of proteolytic release of inhibitory peptides in the biosynthetic pathway and post-Golgi compartments, and in pathological states such as proteinuria (kidney) and Cystic Fibrosis (lung). Her current studies of MUC1 function in normal kidney epithelia are focused on its role in epithelial survival and recovery from acute kidney injury.
Manisha Jhamb MD MPH
Dr. Jhamb’s clinical research focuses on understanding and improving outcomes in patients with chronic kidney disease and end-stage renal disease. She is particularly interested in testing the effectiveness of clinical interventions to improve fatigue and sleep disorders in these patients. Her ongoing study is evaluating the effect of intensive blood pressure control on sleep apnea in dialysis patients. Another research focus is using health information technology to improve delivery of CKD care, reduce health disparities in CKD, and develop predicting modeling to identify high risk CKD patients.

James R Johnston MD
Dr. Johnston collaborates with colleagues in the division on clinical studies in peritoneal dialysis and hemodialysis-based renal replacement therapy. He is involved in collaborative research projects in cardiology that are investigating radiofrequency ablation of renal artery sympathetic nerves (Simplicity HTN 3 trial).

Hoda Kaldas MD
Dr. Kaldas’ research focuses on medical education, quality improvement, and patient safety. She developed an online module to teach electrolyte disorders using virtual patient simulation. For quality improvement projects, she is working on an initiative for safer discharge of high-risk patients with AKI to ensure adequate follow up. She is collaborating with Dr. Kellum’s group to develop an app for patients with kidney disease. Dr. Kaldas is also collaborating with the rheumatology group to ensure adequate immunization occurs in high-risk patients with CKD.

Ossama Kashlan PhD
Dr. Kashlan’s research focuses on the study of epithelial ion channels. His research team seeks a structurally based understanding of the mechanisms of regulation of this channel, e.g. activation by proteases or inhibition by sodium. His lab combines functional characterization by electrophysiology with x-ray crystallography and molecular modeling to study structure. In addition, the lab also employs molecular biology and molecular evolution to gain further insight into the molecular mechanisms of channel regulation.

Thomas R Kleyman MD
Dr. Kleyman’s research efforts are primarily focused on the study of epithelial Na channels (ENaCs) and large conductance Ca$^{2+}$ activated K (BK) channels. Recent work has centered on elucidating mechanisms by which extracellular proteases, small ions, and mechanical forces modulate ENaC gating. He is studying how ENaC modification by glycans and palmitate affect channel trafficking and activity. Studies are also directed at examining the regulation of BK channels in renal collecting tubules by WNK kinases and by dietary potassium. Dr. Kleyman serves as the director of our Pittsburgh Center for Kidney Research, and directs T32 and T35 training grants.

F. Aura Kullmann PhD
Dr. Kullmann’s research focuses on understanding cellular mechanisms underlying various voiding dysfunctions, finding new targets for treatment of these conditions, as well as developing and characterizing animal models for voiding dysfunctions. She utilizes a combination of in vivo and in vitro methodologies, including cystometry, metabolism cages, electrophysiology, single cell imaging, confocal microscopy and immunohistochemistry, to investigate how different components of the urinary bladder, the urothelium, smooth muscle, and neurons are affected by pathology. Recent projects have centered on urothelial hyperplasia and regeneration after spinal cord injury in mice and changes in urothelial cell properties in animal models of interstitial cystitis.

Kelly Liang MD
Dr. Liang’s research primarily focuses on various aspects of lupus nephritis, acute kidney injury (AKI), and cardiorenal failure. She is investigating whether AKI biomarkers will be detectable in the kidneys and elevated in the blood of patients with biopsy-proven lupus nephritis (LN) during the time of an LN flare. She has also published and presented several case reports and abstracts on various glomerulonephritides. She is conducting a retrospective study using the Acute Renal Failure Trial Network (ATN) Study database to assess whether urea reduction ratio (URR) can be used as a simpler method of determining adequacy of intermittent hemodialysis in the critical care setting. She has also
performed a pilot trial investigating whether a protocolized diuretic treatment strategy results in improved clinical decongestion, clinical outcomes, and health-related quality of life (HRQOL) in patients with cardiorenal failure.

Polly Mattilla PhD
The focus of Dr. Mattilla’s research is to understand the mechanisms involved in proximal tubule repair after ischemic injury. The repair processes involve many different proteins, signaling pathways, and cellular processes. Of particular interest is the sialomucin protein endolyn/CD164, which is highly expressed in the endosomes and apical surface of polarized proximal tubule cells. Although endolyn influences proliferation and migration in various cell types, it is not known how it modulates these pathways in proximal tubule cells. Dr. Mattilla’s current research focuses on how endolyn/CD164 influences the cell cycle in proximal tubule repair.

Rajil Mehta MD
Dr. Mehta’s research interests focus on the clinical and translational aspects of subclinical organ rejection, including the following of long-term outcomes in patients with subclinical rejection. He is also interested in exploring alternative pathways that may play a role in subclinical rejection, including Th17 cells and the IL17 pathway.

Paul M. Palevsky MD
Dr. Palevsky co-chairs the VA PRESERVE study (Prevention of Serious Adverse Events Following Angiography), an approximately 8,000 patient, multicenter randomized controlled trial evaluating strategies for the prevention of adverse renal outcomes following radiocontrast administration that is being conducted at 33 VA study sites in the United States as well as at international sites. A biorepository for analysis of potential biomarkers of kidney injury has been created with funding from the NIDDK. Dr. Palevsky serves as a member of the executive (steering) committee for the VA NEPHRON-D Study, which compared the combination therapy with an angiotensin receptor blocker and angiotensin converting enzyme inhibitor to monotherapy angiotensin receptor blocker to slow the progression of diabetic nephropathy. He is also a member of the executive (steering) committee of the GOUT study (VA Cooperative Study 594), which will compare allopurinol to febuxostat for the treatment of gout, with enrichment for patients with CKD. In addition, Dr. Palevsky is a member of the steering committee for the EUPHRATES trial, evaluating the benefit of endotoxin adsorptive therapy using a polymixin adsorption column in patients with endotoxin-positive septic shock. He is leading a U.S. consortium that hopes to participate in the multinational Standard versus Accelerated initiation of Renal Replacement Therapy in Acute Kidney Injury (STARRT-AKI) trial. Other areas of research include progression of CKD, management of symptoms in patients with CKD and ESRD, and implementation of quality improvement in CKD and ESRD. He is deputy editor of CJASN, the Renal Failure editor for UpToDate and on the editorial boards of the Journal of Intensive Care Medicine, and Blood Purification.

Beth M Piraino MD
Dr. Piraino’s research interests center on improving outcomes in peritoneal dialysis patients.

Chetan Puttarajappa MD
Dr. Puttarajappa’s research interests include pre-transplant assessment of kidney transplant candidates, particularly in the area of cardiovascular risk and functional status assessment. His other areas of interest are Cytomegalovirus (CMV) infections in the kidney transplant recipients and renal issues in non-renal solid abdominal organ transplantation.

Mohan Ramkumar MD FACP FASN
Dr. Ramkumar served as the site Principal Investigator at the Pittsburgh VA as a coinvestigator on Dr. Myaskovsky’s Merit Review "Tracking Kidney Donors’ Health, QoL and Financial Outcomes Post Donation."

Evan Ray MD
Dr. Ray is examining factors that regulate renal sodium excretion, with special focus on the epithelial sodium channel (ENaC). Using a combination of electrophysiology, animal modeling, and human clinical data, he is exploring the roles played by ENaC in regulating sodium excretion and blood pressure in healthy and diseased kidneys. He is looking at
whether genetic polymorphisms in the genes encoding ENaC alter blood pressure. In experimental systems, ENaC can be activated by extracellular proteases. Dr. Ray is exploring the importance of proteolytic activation of ENaC in vivo in normal physiology and in diseased kidneys. For example, in nephrotic syndrome, a disorder in which damaged kidneys leak blood stream proteins into the urine, it is possible that blood stream proteases such as plasmin activate ENaC in the kidney, reducing excretion of sodium. Finally, as ENaC is also expressed in the lung, colon, tongue, blood vessels, and brain, he is examining what physiologic roles ENaC plays in sodium transport in these organ systems.

Helbert Rondon-Berrios MD
Dr. Rondon-Berrios continues to work on improving nephrology medical education among medical students, internal medicine residents, and renal fellows. This includes curriculum development in the areas of fluid and electrolyte disorders. He is the site principal investigator for the CureGN: a multicenter five-year cohort study of glomerular disease patients funded by the NIDDK. Dr. Rondon-Berrios has a special interest in hyponatremia.

Ankita Roy PhD
Dr. Roy is examining molecular mechanisms by which aldosterone regulates the thiazide-sensitive NaCl cotransporter (NCC) via the WNK-SPAK/OSR1 pathway. She is also investigating how other physiologically relevant hormones such as insulin, vasopressin, and angiotensin II activate NCC by recruiting specific WNK kinases, and how the cooperative E3 ligase DCNL4 regulates WNK kinase stability via the KLHL3/Cul3 complex.

Jane Schell MD
Dr. Schell's research centers on physician communication skills training. She has developed and measured outcomes for a communication curriculum for nephrology fellows on palliative care topics.

Nirav Shah MD
Dr. Shah is collaborating on several topics in clinical transplantation dealing with immunosuppression, immune monitoring, and the management of medical complications of kidney transplantation. He is a co-investigator of an NIH study examining the effects of drug metabolism in CKD patients based on Vitamin D levels.

Shaohu Sheng MD
Dr. Sheng’s research focuses on structure-function relationship and regulation of epithelial sodium channels. He and his colleagues continued the investigation of functional roles of individual subdomains within the extracellular regions of the sodium channels. His group also continued a study to characterize the genetic variants of human epithelial sodium channel genes and examine the roles of specific variants in blood pressure regulation using knock-in mouse models.

Shujie Shi PhD
Mechanically gated ion channels play essential roles in transforming mechanical forces into cellular signals, a biological process referred to as mechanosensation. The focus of Dr. Shi’s research is to explore mechanisms by which ion channels of the epithelial sodium channel (ENaC)/degenerin family are regulated by mechanical forces. She uses the two expression systems, Xenopus oocytes and C. elegans worms, to perform systematic structure-function studies, and then translates her findings into a whole animal setting. Dr. Shi discovered that the C. elegans degenerin channel was activated by shear stress and the two pore-forming subunits, MEC-4 and MEC-10, had distinct roles in this response. She is currently working on identifying key domain or sites within the degenerin channel required for the channel's activation by shear stress. She is also studying how accessory proteins, such as MEC-6 and its mammalian homology PON-2, regulate the channel activity and gating.

Puneet Sood MD
Dr Sood's clinical research interests include living donor transplantation and strategies for transplanting highly sensitized patients, including local or national donor exchange programs, strategies for living donor desensitization, and wait list desensitization. He is interested in transplant outcomes in highly sensitized patients, mechanism and
treatment of antibody mediated rejection, and HLA matching. Dr. Sood has been involved in multiple studies in their plan, conduct, and data analysis as well as publication of the study results. Dr. Sood is also the center PI for two industry-sponsored multicentric translational studies. He also collaborates with the School of Pharmacy to study drug disposition after kidney transplantation and in living donors.

Arohan Subramanya MD
The goal of Dr. Subramanya's research is to define and understand new molecular pathways that coordinate sodium, chloride, and potassium transport in the kidney and other organs. His work has provided insights into the pathogenesis of renal salt wasting nephropathies, and identified novel mechanisms involved in the regulation of cell volume, blood pressure, and potassium balance.

Roderick Tan MD PhD
Dr. Tan is interested in unraveling the molecular mechanisms underlying the development of chronic kidney disease and fibrosis, utilizing both in vivo and in vitro approaches. In particular, he is assessing novel ways in which the glomerular and tubular compartment cross-talk in disease, and how the Nrf2/Keap1 pathway can be leveraged to prevent CKD. He is also studying how the Wnt/beta-catenin pathway and matrix metalloproteinases affect renal injury.

Steven Truschel PhD
Age-related changes in cellular function can lead to various human pathologies, including cancer, diabetes, and neurodegenerative diseases. A common biomarker of aging cells is a change in the function of lysosomes, which are intracellular organelles responsible for the degradation and recycling of waste material from cellular metabolism and from normal organelle turnover. Impaired lysosomal function can lead to the accumulation of waste products within cells, a progressive loss of lysosomal activity and ultimately cell death. Dr. Truschel is interested in understanding how aging affects the lysosomal network within the cells lining the inner surface of the urinary bladder and how these changes affect bladder function.

Steven D. Weisbord MD MSc
Dr. Weisbord's main research interests include processes of care related to acute kidney injury and quality of life and symptom burden in maintenance hemodialysis patients. He is the Principal Investigator and Study Chairman of the 'PRESERVE' study, a VA Cooperative Studies Program sponsored multicenter, randomized clinical trial investigating interventions for the prevention of serious adverse outcomes related to contrast-induced acute kidney injury. He is a Principal Investigator of an NIH-funded study establishing a biorepository of blood and urine samples collected from PRESERVE trial participants. He was also the Principal Investigator of the SMILE study, a multicenter clinical trial that compared two strategies for the management of symptoms in patients receiving chronic hemodialysis.

Ora A. Weisz PhD
Research in the Weisz lab focuses broadly on understanding how membrane traffic in proximal tubule cells responds to physiologic cues to maintain kidney function. Her team is unraveling the mechanisms by which newly synthesized proteins are sorted and delivered to the appropriate plasma membrane domains of differentiated kidney cells. Additionally, she has been generating new in vitro and ex vivo systems, including disease models, with which to unravel how proximal tubule cells in the kidney alter their endocytic and ion transport capacity in response to changes in tubular flow and the accompanying fluid shear stress. Her studies have direct implications for the understanding and treatment of genetic and other disorders that result in tubular proteinuria and eventually lead to kidney failure, including Lowe syndrome and sickle cell disease.

Christine Wu MD
Dr. Wu's clinical and research interests lie in the selection of kidney transplant recipients and wait list management, kidney transplantation in the elderly, and the impact of co-morbidity on transplant outcomes.
Faculty Research and Other Scholarly Activities

Mohammad Al-Bataineh DVM MS PhD
- Lecturer, 5th Annual AKI Symposium, University of Pittsburgh, 2015
- Lecturer, CCCN Bimonthly AKI Meeting, University of Pittsburgh, 2016

Gerard Apodaca PhD
- Editorial Board Member, Traffic, 2004-present
- MERIT Award, National Institutes of Health, 2004-2015
- Appointment, UPSOM Academy of Master Educators (AME), 2006-present
- Member, Membrane Biology and Protein Processing Study Section, National Institutes of Health, 2012-present
- Cell Physiology editorial board member, American Journal of Physiology, 2009-present
- Renal Physiology editorial board member, American Journal of Physiology, 2007-present
- Speciality Editor, Frontiers in Cell and Developmental Biology, Membrane Traffic, 2013-present

Catherine Baty DVM PhD
- Member, American College of Internal Medicine, Small Animal Internal Medicine, 1995-present.
- Participant, O’Brien Center for Advanced Renal Microscopy and Analysis, University of Indiana, April 27-May 1, 2015
- Invited speaker and poster judge, McGowan Retreat, March 2015

Filitsa Bender MD FACP
- Member, American Society of Nephrology, 1992-present
- Member, International Society of Nephrology, 1993-present
- Member, National Kidney Foundation, 1990-present
- Member, International Society of Peritoneal Dialysis, 1998-present
- Fellow, American College of Physicians, 1998-present
- Core faculty, Interprofessional Healthcare Teams Course, 2007-present
- Member, Dialysis Clinic, Inc., National PD Continuous Quality Improvement Committee, 2007-present
- Chair, Dialysis Clinic, Inc., National PD Continuous Quality Improvement Committee, 2013-present
- Pittsburgh Magazine, the “Best Doctors”, 2013-2015
- Member, Pharmacy and Therapeutics Hospital Committee, UPMC Presbyterian, 2011-present

José Bernardo MD MPH FASN
- Pittsburgh Magazine, the “Best Doctors”, 2012-2016
- Listed as Best Doctor’s in America, Castle Connolly Medical LTD, America’s Top Doctor, 2011-2016
- Member, Multicultural Task Force, National Kidney Foundation, Pittsburgh, PA, 2014-present
- Medical Grand Round, La conexion entre el fosforo dietetico, la enfermedad cardiovascular y la mortalidad: estrategia para reducir los niveles del fosforo serico. Sesion Clinica CIEC, Hospital Universitario HM Monteprincipe, Madrid, Spain, May 7, 2015
- Member, American Society of Nephrology, 1995-present
- Member, American Society of Transplantation, 2005-present
- Member, American College of Physicians, 1995-present
- Member, Peruvian Society of Nephrology, 1990-present
Lori A. Birder PhD

- Member, Society for Neuroscience, 1998-present
- Member, American Physiological Society, 1998-present
- Member, American Society for Pharmacology and Experimental Therapeutics, 1998-present
- Member, Society for Urodynamics and Female Urology, 2002-present
- Member, International Continence Society, 2002-present
- Member, UCLA Center for Neurovisceral Sciences and Women’s Health, 2007-present

Marcelo Carattino PhD

- Member, American Physiological Society, 2004-present
- Member, American Society of Nephrology, 2008-present
- Member, The Biophysical Society, 2010-present
- Member, Society for Neuroscience, 2016-present
- Editorial Board Member, American Journal of Physiology-Renal Physiology, 2007-present
- Associate editor, Frontiers in Physiology, 2015
- Referee, American Journal of Physiology-Renal Physiology, 2015-16
- Referee, American Journal of Physiology-Comparative Physiology, 2015
- Referee, American Journal of Physiology-Cell Physiology, 2015
- Referee, Biochimica et Biophysica Acta, 2015
- Referee, Cellular Physiology and Biochemistry, 2015
- Referee, Cerebral Cortex, 2016
- Referee, Neurourology and Urodynamics, 2016
- Referee, PLOS One, 2016
- Referee, Proceedings of the National Academy of Sciences, 2016
- Co-chair, American Heart Association Cell transport study section 2015-16
- Ad hoc reviewer for Kidney Research UK, April 2016

Geetha Chalasani MD

- Member, American Society of Nephrology, 2000-present
- Member, American Society of Transplantation, 2000-present
- Member, American Association of Immunology, 2007-present
- Member, National Kidney Foundation, 2000-present
- Member, The Federation of Clinical Immunology Societies, 2014-present
- Mentored Trainee Award, Dimitris G. Oreopoulos ASN Postdoctoral Research Fellowship (Tripti Singh), 2013-2015
- Mentored Trainee Award, ASN Postdoctoral Research Fellowship (William Hoffman), 2016-2018
- AST Grants Committee and TIRN Grants Reviewer, 2014 - 2016
- Member, Program Committee, ASN Kidney Week, 2015
- Senior Vice Chancellor’s Research Seminar Series, B cells in alloimmunity and chronic rejection: beyond antibodies, May 8, 2015
- Promotion to Associate Professor of Medicine and Immunology with tenure, October 2015
- Ad hoc Manuscript Reviewer, Journal of Immunology, 2005-present
• Ad hoc Manuscript Reviewer, American Journal of Transplantation, 2005-present
• Ad hoc Manuscript Reviewer, Human Immunology, 2005-present
• Ad hoc Manuscript Reviewer, Transplantation Proceedings, 2005-present
• Ad hoc Manuscript Reviewer, Transplantation, 2005-present
• Ad hoc Manuscript Reviewer, American Journal of Physiology, 2005-present
• Ad hoc Manuscript Reviewer, Journal of American Society of Nephrology, 2005-present
• Ad hoc Manuscript Reviewer, Kidney International, 2005-present
• Abstract Reviewer and Co-chair, major symposia and concurrent scientific sessions for American Society of Transplantation for ATC, 2007-2016

Linda F. Fried MD MPH
• Member, NIDDK: External Expert Panel for the Chronic Renal Insufficiency Cohort (CRIC) Study, Phase III, 2012-present
• Member, National Kidney Foundation, 1996-present
• Editorial Board Member, National Kidney Foundation Learning System (KLS), 2008-present
• Member, National Kidney Foundation CME Committee, 2011-present
• Member, American Society of Nephrology, 1995-present
• Member, American Society of Nephrology Research Advocacy Committee, 2011-present
• Member, American Society of Nephrology Grant Review Committee, 2015-present
• Member, American Society of Nephrology Postgraduate Education Committee, 2015-present
• Chair, Data Safety and Monitoring Board for the NIDDK: Data Monitoring Board, Preventing Early Renal Loss in Diabetes (PERL) Study, 2013-present
• Associate Editor, Clinical Journal of the American Society of Nephrology, 2011-present
• Associate Editor, NephSAP, CKD, 2010-present
• Member, International Society for Peritoneal Dialysis, 1999-present
• Member, International Society of Nephrology, 1996-present
• Member, Women in Nephrology, 2005-present
• FDA Cardiovascular and Renal Drug Advisory Committee, 2013-2016
• Member, ASN Program Committee, 2015
• National Kidney Foundation, Saul G. Massry Distinguished Lectureship: 2016

Laurence Friedman MD
• Member, UPSOM Admissions Interviewing Committee, 2010-present
• Member, UPSOM Admissions Committee, 2015-present
• Member, American College of Physicians, 1997-present
• Member, Healthcare Payment Committee, Renal Physicians Association, 2006-present
• Member, American Health Information Management Association, 2007-present

Sundaram Hariharan MD
• Associate Editor, Clinical Transplantation, 2014-2016
• Associate Editor, Transplantation, 2015-2016
Kevin Ho MD
- Member, UPMC/Department of Medicine Quality Council, 2011-present
- Associate Editor, Advances in Chronic Kidney Disease, 2012-present
- Member, Ph.D. thesis committee for Dustin Walsh, Clinical Pharmaceutical Sciences, 2014-present
- Consultant, Scientific Advisory Council, ZS Pharma, Inc., Fort Worth, TX, 2014-2015

Rebecca P. Hughey PhD
- Member, University of Pittsburgh School of Medicine Admissions Committee, 2009-present
- Member, University of Pittsburgh School of Medicine Executive Committee, 2014-2019
- Member, American Society for Cell Biology, 1983-present
- Member, American Society for Biochemistry and Molecular Biology, 1984-present
- Member, University of Pittsburgh Cancer Institute, 1986-present
- Member, American Physiological Society, 2003-present
- Member, The American Society of Nephrology, 2005-present
- Member, Consortium for Functional Glycomics, 2006-present

Youko Ikeda PhD
- Member, International Continence Society, full member, 2007-present
- Member, American Physiological Society, 2008-present
- Member, International Consultation on Incontinence Research Society, 2013-present
- Member, Society for Neuroscience, 2014-present

Manisha Jhamb MD MPH
- Member, American Society of Nephrology, 2009-present
- Member, National Kidney Foundation, 2010-present
- American Heart Association Fellow-to-Faculty Transition Award, 2011-2016
- Junior Scholars Award, Department of Medicine, 2014-2016
- Dialysis Clinic, Inc. Research Award, 2011-2015
- Pittsburgh Center for Kidney Research Pilot Project Award, 2016-2018
- MRI Research Center Pilot Imaging Grant, 2011-2016
- Norman Coplon Satellite Healthcare Award, 2015-2017
- Member, University of Pittsburgh Renal-Electrolyte Fellowship Interviewing Committee, 2010-present
- Member, University of Pittsburgh Renal-Electrolyte Fellowship Rank Order Match Committee, 2010-present
- Member, University of Pittsburgh Internal Medicine Residency Interviewing Committee, 2012-present
- Member, University of Pittsburgh Dean's Admissions Interview Committee, 2012-present
- Abstract Reviewer, “CKD: Epidemiology, Outcomes: Non-Cardiovascular” category, American Society of Nephrology Kidney Week 2015

John P. Johnson MD
- *Pittsburgh Magazine*, the “Best Doctors”, 2012-2016
James R. Johnston MD
- Member, American Society of Nephrology, 1988-present
- Member, National Kidney Foundation, 1999-present
- Course Director, Renal Block for second-year medical students at the University of Pittsburgh School of Medicine, 1998-present
- Block Coordinator, Body Fluid Homeostasis Course for second-year medical students at the University of Pittsburgh School of Medicine, 1999-present
- Block Coordinator, Organ Systems Courses for all organs systems courses in the basic sciences years at the University of Pittsburgh School of Medicine, 2004-present
- Co-Course Director (1 of 12) Update in Internal Medicine-- continuing Medical Education Course offered to physicians and physician extenders in the Western Pa. area, 2014-present
- Director, University of Pittsburgh School of Medicine Academy of Master Educators, 2007-present
- Chairman, Membership Committee for the University of Pittsburgh School of Medicine Academy of Master Educators, 2005-present
- Member, Steering Committee for the University of Pittsburgh School of Medicine Academy of Master Educators, 2005-present
- Member, Program Director Development Subcommittee of the Graduate Medical Education Committee, 2007-present
- Member, Academy of Master Educators Committee on Teaching Residents to Teach, 2007-present
- Member, UPMC Patient Safety Committee, 2007-present
- Listed in 2016 edition of America’s Top Doctors®, 2005-2016
- Member, Medicine Test Committee, National Board of Medical Examiners. 2009-present
- Reviewer, Clinical Journal of American Society of Nephrology 2011-present
- Member, American Society of Nephrology In-service Training Examination Committee. Question author, 2012-present
- Excellence in Education Award-Small Group Facilitator, 2015
- Outstanding Service Award from UPMC Medical Staff, 2015
- Co-Chair, American Society of Nephrology In-Service Training Examination Clinic, 2016-present

Hoda Kaldas MD
- Member, American Society of Nephrology, 2004-present
- Member, National Kidney Foundation, 2012-present
- Member, UPMC, DOM, Internal Medicine Residency: High Value Care Committee, 2013-present
- Member, UPMC, DOM, Internal Medicine Residency Interviewing Committee, 2012-present
- Member, UPMC, DOM, Internal Medicine Residency, International Scholars Track, Interviewing Committee, 2012-present
- Member, UPMC, DOM, Nephrology Fellowship, Competency Committee, 2014-present
- Invited speaker, Nephrotic Syndrome Symposium, University of Pittsburgh, March 27 2015

Nitin Kamat MD
- Member, American Society of Nephrology, 2006-present

Anthony Kanai PhD
- Member, Department of Medicine’s Appointments, Promotions and Tenure Committee, 2013-2016
- Member, Editorial Board, Neurourology & Urodynamics, 2008-present
Invited Speaker, ‘P75 neurotrophin receptor inhibition improves UAB in the lower motor neuron lesioned mouse.’ Cure-Underactive Bladder National Institutes of Health meeting, Denver CO, 2015
Member, American Physiological Society, 1998-present
Member, American Society for Pharmacology and Experimental Therapeutic, 1998-present
Member, International Consultation on Incontinence—Research Society, 2009-present
Member, International Continence Society, 2002-present
Member, Society for Neuroscience, 1998-present
Panelist, NIH NIDDK ZRG1 DKUS-G (06) M, Special Emphasis Panel for grant applications of study section members, 2015

Ossama Kashlan PhD
Member, American Heart Association, 2013-present
Member, Biophysical Society, 2013-present

Thomas R. Kleyman MD
Deputy Editor-in-Chief, Physiological Reports, 2012-present
Member, Scientific Advisory Board, Telluride Science Research Center, 2013-present
Member, Association of American Physicians, 2004-present
Member, American Society for Clinical Investigation, 1996-present
Member, American Heart Association, 1995-present
Member, American Physiological Society, 1992-present
Member, American Society for Biochemistry and Molecular Biology, 2001-present
Member, American Society of Nephrology, 1992-present
Member, Association of Subspecialty Professors, 2000-present
Member, Biophysical Society, 2002-present
Member, National Kidney Foundation, 2006-present
Member, Society of General Physiologists, 1988-present

F. Aura Kullmann PhD
Member, Society for Neuroscience, 1998-present
Member, American Urology Association, 2010-present
Member, International Continence Society, 2014-present
Editorial board member, Neurourology and Urodynamics, 2014-present

Kelly Liang MD
Member, American College of Physicians-American Society of Internal Medicine, 1998-present
Member, American Medical Association, 1998-present
Member, National Kidney Foundation, 2005-present
Presenter, National Kidney Foundation (NKF), 2015-2016
Presenter, American Society of Nephrology (ASN) Kidney Week, 2015
Presenter, University of Pittsburgh Department of Medicine Annual Research Day, 2015-2016
Polly Mattila PhD
- Member of American Heart Association, 2011-present
- Member of the Society for Experimental Biology, 2014-present

Rajil Mehta MD
- Co-Director, Starzl Transplant Institute (STI) Abdominal Transplant Quality Assessment and Improvement (QAPI) committee, 2015-present
- Member, Starzl Transplant Institute (STI) Outpatient Quality Improvement (QI) Program, 2015-present
- Member, American Society of Nephrology, 2004-present
- Member, American Society of Transplantation (AST), 2013-present

Paul Palevsky MD
- Chair, NIDDK Novel Interventions Hemodialysis Patients Cooperative Agreement Protocol Review Committee and Data Safety Monitoring Board, 2014-present
- Member, NIDDK External Expert Panel for the Chronic Renal Insufficiency Cohort (CRIC) Study, 2012-present
- Member, NIDDK Committee on Future Studies for the Chronic Kidney Disease in Children (CKiD) and Chronic Renal Insufficiency Cohort (CRIC) Studies
- Consultant, FDA Gastroenterology and Urology Devices Panel, Medical Devices Advisory Committee, Centers for Devices and Radiological Health, 2013-present
- Ad-hoc Voting Member, FDA Endocrinologic and Metabolic Drugs Advisory Committee, Center for Drug Evaluation and Research
- Deputy Editor, Clinical Journal of the American Society of Nephrology, 2011-present
- Section Editor, UpToDate, Acute Renal Failure, 2005-present
- Editorial Board Member, Journal of Intensive Care Medicine, Nephrology, 2003-present
- Editorial Board Member, Blood Purification, 2008-present
- Member, Allegheny County Medical Society, 2001-present
- Fellow, American College of Chest Physicians, 1996-present
- Fellow, American College of Physicians, 1986-present
- Fellow, American Society of Nephrology, 1988-present
- Fellow, National Kidney Foundation, 1990-present
- Member, American Federation for Medical Research, 1994-present
- Member, American Heart Association Council on the Kidney in Cardiovascular Disease, 1989-present
- Member, American Medical Association, 2001-present
- Member, International Society of Nephrology, 1986-present
- Member, Pennsylvania Medical Society, 2001-present
- Member, Renal Physicians Association, 1993-present
- Member, Dialysis Steering Committee, United States Department of Veterans Affairs, 2010-present
- Member, Renal Field Advisory Committee, United States Department of Veterans Affairs, 2011-present
- Member, Water Safety Committee, United States Department of Veterans Affairs, 2014-present
- Vice Chair, Board of Directors, Quality Insights Renal Network 4, 2013-present
- Member, Medical Review Board, Quality Insights Renal Network 4, 2013-present
- Member, Quality, Safety and Accountability Committee, Renal Physicians Association, 2003-present
- Co-chair, Kidney Care Quality Alliance (KCQA) Steering Committee, 2016-present
- Member, National Kidney Foundation Scientific Advisory Board, 2013-present
Christopher Passero MD
- Member, American Society of Nephrology, 2005-present
- Member, American Heart Association, 2009-present
- Member, American College of Physicians, 2009-present
- Recipient, UPMC Presbyterian/Shadyside William M. Cooper Excellence in Teaching Award for 2014-2015

Beth M. Piraino MD
- Member, American Society of Nephrology, 1982-present
- Member, National Kidney Foundation, 1984-present
- Member, International Society for Peritoneal Dialysis, 1984-present
- Member, International Society of Nephrology 1986-present
- Member, Women in Nephrology, 1999-present
- Member, Alpha Omega Alpha, 1976-present
- Fellow, American College of Physicians, 2012-present
- Editorial Board Member, Peritoneal Dialysis International, 1993-present
- Member, Scientific Advisory Board, National Kidney Foundation, 2009-present
- Editorial Board Member, American Journal Kidney Disease, 2009-present
- Pittsburgh Magazine, the “Best Doctors,” 2012-2016
- Special Recognition Award, Dedication to Commitment and Quality, UPMC Presbyterian Campus, 2015
- Gift of Life Legacy of Leadership Awardee, NKF Serving the Alleghenies, March 12, 2016

Chethan Putterrajappa MD
- Member, American Society of Nephrology, 2010-present
- Member, American Society of Transplantation (AST), 2013-present
- Member, Member Starzl Transplant Institute (STI) Protocol Review Committee/Data Safety Monitoring Board (PRC/DSMB), 2013-present
- Invited reviewer, American Journal of Transplantation (AJT), 2013-2015
- Invited reviewer, Clinical Transplantation, 2014-present

Mohan Ramkumar MD
- Member, American Society of Nephrology, 2000-present
- Member, American Society of Transplantation, 2003-present
- Member, VA National Transplant Surgery Advisory Board, 2012-present
- Member, National VA Dialysis Steering Committee, 2013-present
- Member, UPSOM Admissions Committee, 2014-present

Evan Ray MD PhD
- Epithelial Physiology and Cell Biology Conference, Telluride CO. Regulation of the Epithelial Sodium Channel in Humans: Influence on Blood Pressure 7/29/16
- Award: 1st Place Winner: Basic Sciences Research. NKF Mid-Atlantic Young Investigators’ Forum, Baltimore, MD., 3/23/16
- Award: 2nd Place Winner: Basic Sciences Research. NKF National Young Investigators Forum, Boston, MA., 2016
- Award: Winner, Post-Doctoral Bench Research UPMC Department of Medicine Research Day. 2016
• Member, American Society of Nephrologists, 2013-present
• Member, American Heart Association, 2013-present
• Ad Hoc Reviewer, *Physiological Reports*, 2015

Natasha Rogers MD PhD
• Member, AHA Kidney in Cardiovascular Disease Council
• Member, American Society of Transplantation, Trainee and Young Faculty Community of Practice, 2015-present
• Academic Editor, *Medicine*, 2015-present
• Adjunct Assistant Professor, Starzl Transplant Institute, University of Pittsburgh, 2016-present
• Clinical Senior Lecturer, University of Sydney, 2016-present
• Research Fellow and Group Leader, Centre for Transplant and Renal Research, Westmead Institute for Medical Research, 2016-present

Helbert Rondon-Berrios MD FACP FASN
• Member, American College of Physicians, 2002-present
• Member, American Society of Nephrology, 2005-present
• Member, National Kidney Foundation, 2012-present
• Raymond M. Rault, MD Faculty Teaching Award, University of Pittsburgh Renal-Electrolyte Division, 2014 and 2015

Ankita Roy PhD
• Associate Faculty Member, Faculty of 1000, Nephrology, 2012-present
• Member, American Society of Physiology, 2012-present
• Member, American Heart Association, 2012-present

Ramya Sahasranamam MD
• Member, American Society of Nephrology, 2010-present
• Member, National Kidney Foundation, 2010-present
• Member, American College of Physicians, 2007-present

Jane Schell MD
• Member, Coalition for Supportive Care of Kidney Patients, Education Subcommittee, 2013-present
• Co-Chair, Geriatric Nephrology Advisory Group, American Society of Nephrology, 2012-present
• Contributor, Advance Care Planning Subgroup, eAJKD, official blog for American Journal of Kidney Disease, 2013-present
• Recipient, William and Sandra Bennett Clinical Scholars Program, 2014-2016
• Member, Education Committee for the National Kidney Foundation, Palliative Care and Geriatrics, 2015-present
• Editorial Board Member, *Clinical Journal of American Society of Nephrology*, 2014-present

Nirav Shah MD
• Member, American Society of Transplantation, 2005-present
• Member, Renal Physician Association, 2005-present
• Member, American Society of Nephrology, 2005-present
• Reviewer, *Journal of Clinical Transplantation*, 2008-present
- Co-Investigator, R01 GM107122-01A1, NIH/NIGMS Drug Metabolizing Enzyme and Transporter Function in Chronic Kidney Disease, 2-14-2019
- Pilot Funding for Galaxo Smith Kline Study, “A Phase 3 randomized, open-label, active-controlled, parallel-group, multi-center, event driven study in dialysis subjects with anemia associated with chronic kidney disease to evaluate the safety and efficacy of GSK1278863 compared to recombinant human erythropoietin, following a switch from erythropoietin-stimulating agents”, 2016

**Shaohu Sheng MD**
- Editorial Board Member, *Frontiers in Renal and Epithelial Physiology*, 2012-present
- Editorial Board Member, *The Scientific World Journal*, 2011-present

**Shujie Shi PhD**
- Member, American Physiological Society (APS), 2016-present

**Puneet Sood MD**
- Member, American Society of Nephrology, 2007-present
- Member, American Society of Transplantation (AST), 2009-present
- Member, Member Starzl Transplant Institute (STI) Abdominal Transplant Quality Assessment and Improvement (QAPI) committee, 2013-present
- Member, Member Starzl Transplant Institute (STI) Protocol Review Committee/Data Safety Monitoring Board (PRC/DSMB), 2013-present
- Ad Hoc Reviewer, *Clinical Transplantation*, 2014-2016
- Site Principal Investigator, Shire Pharmaceuticals, “A randomized double-blind placebo-controlled study to evaluate the efficacy and safety of Cinryze (C1 esterase inhibitor (human) for the treatment of acute antibody-mediated rejection in kidney transplant patients,” 2015-present
- Site Principal Investigator, Care DX, “Circulating donor-derived cell-free dna in blood for diagnosing acute rejection in kidney transplant recipients (DART)”, 2015-present
- Principal Investigator, STI and School of Pharmacy, “Exposure to Mycophenolic acid/Tacrolimus and outcomes in renal transplant recipients”, IRB Process, 2016

**Arohan Subramanya MD**
- Editorial Board Member, *American Journal of Physiology-Renal Physiology*, 2010-present
- Editorial Board Member, *Frontiers in Renal and Epithelial Physiology*, 2010-present
- Ad Hoc Peer Reviewer, American Heart Association Innovative Research Grant (IRG) Basic Sciences 1 Study Section, 2016.
- Ad Hoc Peer Reviewer, American Heart Association Basic Cell MSO I Study section, 2015
- Member, American Society of Nephrology, 2002-present
- Member, American Physiological Society, 2006-present
- Member, American Heart Association, 2006-present
- Member, National Kidney Foundation, 2006-present
- Member, The Salt and Water Club, 2006-present
- Member, American Society for Cell Biology, 2010-present
• Member, American Physiological Society Epithelial Transport Group Steering Committee, 2014-present
• Member, American Heart Association KCVD Membership and Communications Committee, 2014-present
• Member-at-Large, American Heart Association KCVD Leadership Committee, 2014-present

Roderick Tan MD PhD
• Member, American Society of Nephrology, 2011-present
• Member, National Kidney Foundation, 2011-present
• Chair, Renal Fellows Research Day, 2015
• Presenter, Department of Medicine Research Day, University of Pittsburgh, "Tubule-specific beta-catenin signaling contributes to glomerular injuries,” 5/5/2015
• Presenter, Acute Kidney Injury Symposium, University of Pittsburgh, “Keap1 Hypomorphs in AKI,”, 10/15/2015
• Presenter, AKI Meeting, University of Pittsburgh, “The Keap1/Nrf2 Pathway in AKI-to-CKD Progression,” 3/21/2016
• Presenter, Department of Medicine Research Day, University of Pittsburgh, “Genetic activation of Nrf2 signaling protects against chronic kidney disease,” 5/24/2016
• Editorial Board, Physiological Reports, 2015-present
• Ad hoc reviewer, PLOS One, 2013-present
• Ad hoc reviewer, American Journal of Physiology-Renal Physiology, 2014-present
• Ad hoc reviewer, Oxidative Medicine and Cellular Longevity, 2016-present
• Faculty, Summer Undergraduate Research Program (SURP), University of Pittsburgh, 2016
• Abstract and Poster Judge, Department of Medicine Research Day, University of Pittsburgh, 2016
• Medical School Applicant Interviewing, SOM, University of Pittsburgh, 2013-present.

Steven D. Weisbord MD MSc
• Editorial Board Member, Clinical Journal of the American Society of Nephrology, 2011-present
• Member, American Society of Nephrology, 2005-present
• Member, National Kidney Foundation, 2011-present
• Member, International Society of Nephrology, 2013-present
• Invited talk: Update on the PRESERVE Trial, 5th Annual University of Pittsburgh Acute Kidney Injury Symposium, Pittsburgh, PA 2015
• Invited talk: The Critically Ill End-Stage Renal Disease Patient. 2015 Annual Meeting of the American Society of Nephrology, San Diego, CA, 2015
• Invited talk: Endpoints in AKI Trials. 2015 Annual Meeting of the American Society of Nephrology, San Diego, CA, 2015
• Invited talk: Symptoms in Dialysis Patients. University of New Mexico School of Medicine, Nephrology Division Grand Rounds. Albuquerque, NM, 2015
• Invited talk; Significance, Clinical Implications, and Prevention of Contrast-Induced Acute Kidney Injury. University of New Mexico School of Medicine, Department of Medicine Grand Rounds. Albuquerque, NM, 2015
• Associate Editor, BMC Nephrology, 2014-present

http://www.dom.pitt.edu/renal
- Invited Reviewer, Contrast-Associated Acute Kidney Injury-American Society of Nephrology and John M. Eisenberg Center for Clinical Decisions and Communications Science Center for Collaborative and Interactive Technologies (CCIT), Baylor College of Medicine, 2016

Ora A. Weisz PhD
- Vice Chair, Italian Telethon Foundation Scientific Committee, 2016 (member since 2012)
- NIH NHLBI Board of Scientific Counselors, 2014-present
- NIH CSR pilot study, 2015
- Chair, ASCB Kaluza Prize for Excellence in Graduate Research review committee, 2016
- Program Committee, ASCB/EMBO 2017 annual meeting, 2016
- Editorial Board Member, American Journal of Physiology- Cell Physiology, 2002-present
- Editorial Board Member, Physiological Reviews, 2009-present
- Editorial Board Member, Traffic, 2012-present
- Review Editor, Frontiers in Membrane Traffic, 2013-present
- Elected to American Society for Cell Biology Council, 2016-2019
- Member, American Society for Cell Biology Women in Cell Biology Committee, 2011-present
- Member, American Society for Cell Biology, 1985-present
- Member, American Physiological Society, 2004-present
- Member, Academy of Master Educators, 2009-present
- Executive Committee, University of Pittsburgh Liver Center, 2016

Christine Wu MD
- Member, American Transplant Society, 2005-present
- Member, American Society of Nephrology, 2002-present
- Member, American College of Physicians, 2000-present
- Program Director, Transplant Nephrology Fellowship, 2014-present
- Member, University of Pittsburgh School of Medicine Interview Committee, 2014-present

Irina Zabbarova PhD
- CURE-UAB Travel Scholarship Award, 2015
- Presenter, CURE-UAB Conference, 2015
- Member, International Continence Society (ICS), full member, 2007-present
- Member, American Society of Pharmacology and Experimental Therapeutics (ASPET), 2009-present
- Member, International Consultation on Incontinence Research Society (ICI-RS), 2011-present
- Member, Society for Neuroscience, 2014-present
<table>
<thead>
<tr>
<th>Grantee</th>
<th>Project Description</th>
<th>Agency</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Al-Bataineh, Mohammad</td>
<td>Aquaporin-2 (AQP-2) regulation by AMP-activated kinase (AMPK) in the kidney collecting duct</td>
<td>NIDDK</td>
<td>$34,609</td>
<td>$0</td>
</tr>
<tr>
<td>Apodaca, Gerard</td>
<td>Pittsburgh center for kidney research - Core C</td>
<td>NIDDK</td>
<td>$105,961</td>
<td>$57,219</td>
</tr>
<tr>
<td>Apodaca, Gerard</td>
<td>Role of uroplakins in urinary tract development and Cakut</td>
<td>NIDDK</td>
<td>$278,952</td>
<td>$129,723</td>
</tr>
<tr>
<td>Apodaca, Gerard</td>
<td>Effect of aging on urothelial function</td>
<td>NIA</td>
<td>$87,589</td>
<td>$47,298</td>
</tr>
<tr>
<td>Apodaca, Gerard</td>
<td>Biology and function of the bladder umbrella cell paracellular barrier</td>
<td>NIDDK</td>
<td>$137,174</td>
<td>$74,074</td>
</tr>
<tr>
<td>Baty, Catherine J.</td>
<td>Regulation of TH17 functions in autoimmune CNS inflammation</td>
<td>NIAID</td>
<td>$9,761</td>
<td>$5,271</td>
</tr>
<tr>
<td>Baty, Catherine J.</td>
<td>Micro-scale analysis of mesenchymal to epithelial transition in lung cancer</td>
<td>NCI</td>
<td>$3,415</td>
<td>$1,844</td>
</tr>
<tr>
<td>Baty, Catherine J.</td>
<td>Genetics of extracellular matrix in health and disease</td>
<td>NHLBI</td>
<td>$7,090</td>
<td>$3,829</td>
</tr>
<tr>
<td>Baty, Catherine J.</td>
<td>Interventions to reduce hypercoagulability in old SIV-infected NHPS</td>
<td>NHLBI</td>
<td>$4,921</td>
<td>$2,657</td>
</tr>
<tr>
<td>Baty, Catherine J.</td>
<td>SIV pathogenesis in African monkeys and pigtailed macaques</td>
<td>NHLBI</td>
<td>$4,917</td>
<td>$2,655</td>
</tr>
<tr>
<td>Bider, Lori</td>
<td>PDE5 inhibition of afferents and interstitial cells in overactive mouse bladders</td>
<td>NIDDK</td>
<td>$22,509</td>
<td>$12,155</td>
</tr>
<tr>
<td>Bider, Lori</td>
<td>Mechanisms/treatments of lower urinary tract dysfunction after spinal cord injury - Project 2</td>
<td>NIDDK</td>
<td>$111,292</td>
<td>$60,098</td>
</tr>
<tr>
<td>Bider, Lori</td>
<td>Roles of nitric oxide and superoxide in cystitis</td>
<td>NIDDK</td>
<td>$18,022</td>
<td>$9,732</td>
</tr>
<tr>
<td>Bider, Lori</td>
<td>Effect of aging on urothelial function</td>
<td>NIA</td>
<td>$313,903</td>
<td>$169,507</td>
</tr>
<tr>
<td>Bider, Lori</td>
<td>Nitric oxide in bladder neural-epithelial signaling</td>
<td>NIDDK</td>
<td>$209,623</td>
<td>$101,280</td>
</tr>
<tr>
<td>Researcher</td>
<td>Project Description</td>
<td>Institute</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>----------------------------</td>
<td>--------------------------------------------------------------------------------------</td>
<td>-----------</td>
<td>--------------</td>
<td>----------------</td>
</tr>
<tr>
<td>CARATTINO, MARCELO</td>
<td>Biology and Function of the Bladder Umbrella Cell Paracellular Barrier</td>
<td>NIDDK</td>
<td>$137,174</td>
<td>$74,074</td>
</tr>
<tr>
<td>CARATTINO, MARCELO</td>
<td>Pittsburgh Center for Kidney Research - Core A</td>
<td>NIDDK</td>
<td>$142,000</td>
<td>$76,680</td>
</tr>
<tr>
<td>CHALASANI, GEETHA</td>
<td>In Vivo Detection and Mechanisms of Regulatory B Cell Function in Transplantation</td>
<td>NIAID</td>
<td>$3,882</td>
<td>$2,096</td>
</tr>
<tr>
<td>FRIED, LINDA</td>
<td>The Aging Kidney: Chronic Injury, Impaired Functions and Clinical Outcomes</td>
<td>NEW ENGLAND MEDICAL CENTER/NIA</td>
<td>$6,204</td>
<td>$1,601</td>
</tr>
<tr>
<td>FRIED, LINDA</td>
<td>CKD Pilot Trials - Chair</td>
<td>NIDDK</td>
<td>$19,562</td>
<td>$5,438</td>
</tr>
<tr>
<td>HUGHEY, REBECCA P.</td>
<td>Role of MUC1 in Acute Kidney Injury</td>
<td>NIDDK</td>
<td>$64,935</td>
<td>$35,065</td>
</tr>
<tr>
<td>KANAI, ANTHONY</td>
<td>Mechanisms/Treatments of Lower Urinary Tract Dysfunction After Spinal Cord Injury</td>
<td>NIDDK</td>
<td>$377,482</td>
<td>$187,425</td>
</tr>
<tr>
<td>KANAI, ANTHONY</td>
<td>PDE5 Inhibition of Afferents and Interstitial Cells in Overactive Mouse Bladders</td>
<td>NIDDK</td>
<td>$409,342</td>
<td>$97,630</td>
</tr>
<tr>
<td>KANAI, ANTHONY</td>
<td>Role of Nitric Oxide and Superoxide in Cystitis</td>
<td>NIDDK</td>
<td>$181,756</td>
<td>$89,521</td>
</tr>
<tr>
<td>KANAI, ANTHONY</td>
<td>Critical Roles for Fibroblast Growth Factor Receptors in Bladder Development</td>
<td>NIDDK</td>
<td>$48,848</td>
<td>$26,378</td>
</tr>
<tr>
<td>KASHLAN, OSSAMA</td>
<td>Allosteric ENaC Regulation</td>
<td>NIDDK</td>
<td>$217,500</td>
<td>$117,450</td>
</tr>
<tr>
<td>KLEYMAN, THOMAS</td>
<td>Training in Renal, GI, Endocrine, and Epithelial Biology</td>
<td>NIDDK</td>
<td>$39,651</td>
<td>$3,172</td>
</tr>
<tr>
<td>KLEYMAN, THOMAS</td>
<td>Biomechanical Regulation of Renal Ion Transporters</td>
<td>NIDDK</td>
<td>$272,934</td>
<td>$65,926</td>
</tr>
<tr>
<td>KLEYMAN, THOMAS</td>
<td>Renal and Epithelial Biology Training Program</td>
<td>NIDDK</td>
<td>$179,972</td>
<td>$11,740</td>
</tr>
<tr>
<td>KLEYMAN, THOMAS</td>
<td>Maturation of K Transport in the Distal Nephron</td>
<td>MT. SINAI MEDICAL CENTER/ NIDDK</td>
<td>$140,229</td>
<td>$75,724</td>
</tr>
<tr>
<td>KLEYMAN, THOMAS</td>
<td>Pittsburgh Center for Kidney Research - Admin Core</td>
<td>NIDDK</td>
<td>$288,606</td>
<td>$35,813</td>
</tr>
<tr>
<td>Name, First Last</td>
<td>Project Title</td>
<td>Funding Agency</td>
<td>DIRECT COSTS</td>
<td>INDIRECT COSTS</td>
</tr>
<tr>
<td>------------------</td>
<td>-------------------------------------------------------------------------------</td>
<td>----------------</td>
<td>--------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Kullmann, Florenta A.</td>
<td>EFFECT OF ULTRAFILTRATION ON CLINICAL OUTCOMES AND HEALTH-RELATED QUALITY OF LIFE IN CARDIorenal FAILURE</td>
<td>NIDDK</td>
<td>$15,000</td>
<td>$8,100</td>
</tr>
<tr>
<td>Liang, Kelly</td>
<td>PRIMARY OUTCOMES IN GLOMERULONEPHRITIS STUDY (PROGRESS)</td>
<td>NIDDK</td>
<td>$159,505</td>
<td>$12,760</td>
</tr>
<tr>
<td>Rondon-Berrios, Helbert</td>
<td>DRUG METABOLIZING ENZYME AND TRANSPORTER FUNCTION IN CHRONIC KIDNEY DISEASE</td>
<td>UNIVERSITY OF PENNSYLVANIA/IDDK</td>
<td>$5,033</td>
<td>$342</td>
</tr>
<tr>
<td>Shah, Nirav</td>
<td>REGULATION OF ENAC/DEGENERIN CHANNELS BY MECHANICAL FORCES</td>
<td>NIDDK</td>
<td>$127,956</td>
<td>$10,236</td>
</tr>
<tr>
<td>Subramanya, Arohan</td>
<td>GENETIC AND FUNCTIONAL ANALYSIS OF HYPERTENSION SUSCEPTIBILITY GENES</td>
<td>UNIVERSITY OF MARYLAND/NIHBI</td>
<td>$29,876</td>
<td>$16,133</td>
</tr>
<tr>
<td>Subramanya, Arohan</td>
<td>THE ROLE OF NA/H EXCHANGER IN CEREBRAL ISCHEMIA</td>
<td>NINDS</td>
<td>$3,151</td>
<td>$1,702</td>
</tr>
<tr>
<td>Subramanya, Arohan</td>
<td>EPITHELIAL TRANSPORT GROUP SESSIONS AT EXPERIMENTAL BIOLOGY 2016</td>
<td>NIDDK</td>
<td>$4,000</td>
<td>$0</td>
</tr>
<tr>
<td>Subramanya, Arohan</td>
<td>CHARACTERIZATION AND CONTROL OF THE RENAL WNK1 SIGNALING PATHWAY</td>
<td>NIDDK</td>
<td>$217,500</td>
<td>$117,450</td>
</tr>
<tr>
<td>Weisz, Ora A.</td>
<td>INTEGRATED PERFUSION AND CONFOCAL IMAGING SYSTEM</td>
<td>NIH</td>
<td>$79,759</td>
<td>$0</td>
</tr>
<tr>
<td>Weisz, Ora A.</td>
<td>APICAL PROTEIN SORTING IN RENAL EPITHELIAL CELLS</td>
<td>NIDDK</td>
<td>$217,500</td>
<td>$117,450</td>
</tr>
<tr>
<td>Weisz, Ora A.</td>
<td>FLOW-STIMULATED ENDOCYTOSIS IN THE PROXIMAL TUBULE</td>
<td>NIDDK</td>
<td>$198,970</td>
<td>$107,442</td>
</tr>
<tr>
<td><strong>TOTAL PUBLIC HEALTH SERVICE</strong></td>
<td></td>
<td></td>
<td><strong>$4,945,692</strong></td>
<td><strong>$1,978,809</strong></td>
</tr>
</tbody>
</table>

**SOCIETY AND FOUNDATIONS**

<table>
<thead>
<tr>
<th>Name, First Last</th>
<th>Project Title</th>
<th>Funding Agency</th>
<th>DIRECT COSTS</th>
<th>INDIRECT COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birder, Lori</td>
<td>NEURAL-EPITHELIAL ROLE IN CHRONIC BLADDER PAIN</td>
<td>INTERNATIONAL ASSOCIATION FOR THE STUDY OF PAIN</td>
<td>$6,000</td>
<td>$0</td>
</tr>
</tbody>
</table>

Department of Medicine

http://www.dom.pitt.edu/renal
<table>
<thead>
<tr>
<th>Name</th>
<th>Project Description</th>
<th>Institution</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUGHEY, REBECCA P.</td>
<td>SLIM INITIATIVE IN GENOMIC MEDICINE FOR THE AMERICAS</td>
<td>BROAD INSTITUTE</td>
<td>$92,625</td>
<td>$0</td>
</tr>
<tr>
<td>JHAMB, MANISHA</td>
<td>PREDICTION MODELING IN OLDER ADULTS WITH ADVANCED CKD</td>
<td>VANDERBILT UNIVERSITY</td>
<td>$36,481</td>
<td>$5,472</td>
</tr>
<tr>
<td>JHAMB, MANISHA</td>
<td>BLOOD PRESSURE IN DIALYSIS - THE IMPACT OF BLOOD PRESSURE CONTROL ON SLEEP APNEA AND SLEEP QUALITY (BID-SLEEP STUDY)</td>
<td>AMERICAN HEART ASSOCIATION</td>
<td>$113,894</td>
<td>$11,389</td>
</tr>
<tr>
<td>TAN, RODERICK</td>
<td>OXIDATIVE STRESS IN CHRONIC KIDNEY DISEASE</td>
<td>AMERICAN HEART ASSOCIATION</td>
<td>$115,000</td>
<td>$11,500</td>
</tr>
<tr>
<td>WEISBORD, STEVEN</td>
<td>TREATMENT OPTIONS FOR DEPRESSION IN PATIENTS UNDERGOING HEMODIALYSIS</td>
<td>UNIVERSITY OF WASHINGTON</td>
<td>$4,754</td>
<td>$1,902</td>
</tr>
<tr>
<td>WEISZ, ORA A.</td>
<td>ROLE OF OCRL1 IN FLOW SENSING BY PROXIMAL TUBULE CELLS</td>
<td>LOWE SYNDROME ASSOC. INC.</td>
<td>$10,417</td>
<td>$0</td>
</tr>
<tr>
<td></td>
<td>TOTAL SOCIETY AND FOUNDATIONS</td>
<td></td>
<td>$449,171</td>
<td>$37,263</td>
</tr>
<tr>
<td>INDUSTRY</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIRDER, LORI</td>
<td>THE ROLE OF ESTROGEN ON UROTHELIAL STRUCTURE AND SIGNALING FUNCTIONS AS WELL AS BLADDER AFFECTIVE ACTIVITY</td>
<td>ASTELLAS PHARMA US</td>
<td>$12,908</td>
<td>$3,872</td>
</tr>
<tr>
<td></td>
<td>TOTAL INDUSTRY</td>
<td></td>
<td>$12,908</td>
<td>$3,872</td>
</tr>
<tr>
<td>PUBLIC HEALTH SERVICE</td>
<td></td>
<td></td>
<td>$4,945,692</td>
<td>$1,978,809</td>
</tr>
<tr>
<td>SOCIETY AND FOUNDATIONS</td>
<td></td>
<td></td>
<td>$449,171</td>
<td>$37,263</td>
</tr>
<tr>
<td>INDUSTRY</td>
<td></td>
<td></td>
<td>$12,908</td>
<td>$3,872</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td>$5,407,771</td>
<td>$2,019,944</td>
</tr>
</tbody>
</table>
TEACHING ACTIVITIES

Teaching medical students, graduate students, medical residents, and renal fellows continues to be a strength of the division. Our faculty are consistently recognized as some the best educators in the School of Medicine, as evidenced by their consistently high scores on teaching evaluations and by the teaching awards that the faculty receive. Our faculty has been active in many educational forums including:

- Directors of medical school and CME courses
- Invited lectureships nationally and internationally
- Leading and participating in courses at national specialty meetings
- Coordinator of the second-year medical student curriculum
- Scholarly project and career mentors
- Membership in the Academy of Master Educators
- James Johnston MD received an Excellence in Education Award from the Class of 2017 for contributions as a Small Group Facilitator

Teaching Honors and Awards

Gerard Apodaca PhD
- Course organizer and director, Kidney Center renal course, University of Pittsburgh School of Medicine, 2016
- Course organizer and director, Regulation of Membrane Traffic, University of Pittsburgh School of Medicine/Dept. of Biological Sciences/CMU, 2016
- Lecturer, Foundations of Biomedical Science Course, University of Pittsburgh School of Medicine Graduate Program, 2015
- Course organizer and co-director, Research Seminar/Membrane Trafficking, University of Pittsburgh School of Medicine Graduate Program, 2015
- Lecturer, small group facilitator, and PBL course leader Cellular and Pathological Basis of Disease, University of Pittsburgh School of Medicine, 2015
- Course organizer and co-director, Spring. Research Seminar/Membrane Trafficking, University of Pittsburgh School of Medicine Graduate Program, Research seminars, 2016

Catherine Baty DVM PhD
- Member, Thesis Committee, Sandeep Khatri, Department of Human Genetics, 2015
- Reviewer, Dean's Medical Student Summer Research Program, 2015
- Lecturer, Angiogenesis Molecular Pathways and Pathophysiological Functions, MSCMP, 3750, 2015

Filitsa Bender MD
- Core faculty for the development of the Interprofessional Health Care Teams Course, University of Pittsburgh, 2007-present
- Small group Facilitator, MS I: Introduction to Becoming a Physician, 2014-present
- Advisor, MS I: FAST (Faculty and Students Together), 2014-present
- Renal Block Small Group Discussion Facilitator, MS II, 2014-present
- Small Group Facilitator, MS IV: Clinical Pharmacology, Edematous states and diuretic use, 2014-present
- Core Faculty, MS IV: Interprofessional Health Care Teams Course, (this is attended by pharmacy, nursing, and social work students as well), 2014-present
- Lecturer, Shadyside Hospital Residents noon lecture, 2014-present
• Lecturer, Nephrology Fellows Core Curriculum lectures (2), 2014-present

Jose Bernardo MD
• Lecture on diuretic therapy for School of Medicine (MS-II and MS-IV year), 2014-2015

Lori Birder PhD
• Active Participant, Problem-Based Learning Sessions (Pharmacology Block, Medical School Curriculum), MS-1, small group sessions, 2013-2015
• Active Participant, Advanced Topics in Neuropharmacology-Cholinergic Pharmacology, Graduate Students and Research Associates, 2013-2015

Marcelo Carattino PhD
• Facilitator, MSCBMP 2895 Summer Course in Cellular Physiology of the Kidney, 2014-present
• Facilitator, EOH 3210 Pathophysiology of Environmental Disease, 2015
• Faculty, Intensive Pedagogical Laboratory Research Experience, Yale University and Mt. Desert Island Biological Laboratory, 2016
• Faculty, The Origins of Renal Physiology, MDI Biological Laboratory National Course for Renal Fellows, 2016
• Faculty, Origins of Renal Physiology: TREKS, MDI Biological Laboratory National Course for Medical Student and Post-docs, 2016

Geetha Chalasani MD
• MSIMM 2210, Comprehensive Immunology, Memory T Cells Lecture, 2011-present
• MS-1 MED 5116, Immunology in Health and Disease, Transplantation Immunology Lectures, 2011-present

Robert Denshaw MD
• Lecturer, “Empowerment Through Education: Teaching the Renal Patient” Conference, UPMC Shadyside Herberman Conference Center, 2015

Linda Fried, MD MPH
• University of Pittsburgh School of Medicine 2nd-year medical student Renal Block–Small group and pathology session facilitator and lecturer, 2005-present

Laurence Friedman MD
• Lecturer, “Empowerment Through Education: Teaching the Renal Patient” Conference, UPMC Shadyside Herberman Conference Center, 2015
• VA Hospital Pittsburgh University Drive Internal Medicine Noon Conference, “AKI, They Say Goodbye, I Say Hello,” 2016
• UPSOM Renal-Electrolyte Division Noon Conference, “When Bad Things Happen to Good Hemodialysis,” 2015
• UPSOM Renal-Electrolyte Division Noon Conference, “Coding with Confidence,” 2015
• UPSOM Renal-Electrolyte Division Noon Conference, “Nephrolithiasis,” 2015
• UPSOM Renal-Electrolyte Division Noon Conference, “Roles and Responsibilities of the Dialysis Facility Medical Director,” 2015
• UPMC Shadyside Renal Conference, Empowerment through Education: Teaching the Renal Patient, “AKI and newly diagnosed ESRD: Answering the questions that patients and families ask,” 2015
• UPMC Shadyside Internal Medicine Noon Conference, “AKI,” 2016
• UPMC Shadyside Internal Medicine Noon Conference, “Nephrolithiasis,” 2016
Sundaram Hariharan MD
- Lectures, Transplant Nephrology Trainee (lectures – 3 per year), Nephrology fellow – 2 lectures per year, 2015-present

Kevin Ho MD
- Renal pathophysiology course: "Renal Organ System and Hypertension" (Medical Students), 2002-2015
- CTSI Mentor, Theodore H. you MD, Multidisciplinary Clinical Research Scholar, Assistant Professor of Surgery, Division of Vascular Surgery, 2014-2015

Rebecca Hughey, PhD
- Member, Medical School Admissions Committee and Interviewer, 2014-present
- Assistant Dean for Medical School Research, 2014-present
- Facilitator for Medical Students (MS2) in Investigation & Discovery (ID), 2014-present

Youko Ikeda, PhD
- Animal Laboratory Demonstrator, Principles of Pharmacology (2310) Graduate Course, University of Pittsburgh, 2016
- Facilitator, Protein Sorting-Physiology and Pathophysiology, Cellular and Pathologic Basis of Disease/Pharmacology course, 2015
- Facilitator, Rational use of drugs conference, Cellular and Pathologic Basis of Disease/Pharmacology course, 2015
- Facilitator, Breast Cancer Pharmacology and Pathology, Cellular and Pathologic Basis of Disease/Pharmacology course, 2015
- Facilitator, G-Protein Coupled Receptor Drugs conference, Cellular and Pathologic Basis of Disease/Pharmacology course, 2015
- Facilitator, Adrenergic Pharmacology conference, Cellular and Pathologic Basis of Disease/Pharmacology course, 2015

Manisha Jhamb MD
- Lecturer, Kidney Disease lecture, Renal Organ system 2nd-year medical student lecture, University of Pittsburgh School of Medicine, 2013-present
- Small Group Facilitator, "Methods and Logic in Medicine," University of Pittsburgh School of Medicine, 2015
- Small Group Facilitator, "Renal Body Fluid Homeostasis," University of Pittsburgh School of Medicine, 2011-present
- Small Group Facilitator, Fellows Board Review "Hypertension," University of Pittsburgh School of Medicine, 2014-present

James Johnston MD
- Course Director, Renal Block for second-year medical students, University of Pittsburgh School of Medicine, 1998-present
- Block Coordinator, Body Fluid Homeostasis Course for second-year medical students, University of Pittsburgh School of Medicine, 1999-present
- Block Coordinator, Organ Systems Courses for all organs systems courses in the basic sciences years, University of Pittsburgh School of Medicine, 2004-present
- Team Leader for "Integrated Case Studies Course" for second-year medical students, University of Pittsburgh School of Medicine, Spring, 2000-present
- Chair, Membership Committee, University of Pittsburgh School of Medicine Academy of Master Educators, 2005-present
• Director, University of Pittsburgh School of Medicine Academy of Master Educators, 2007-present
• Member, Steering Committee, University of Pittsburgh School of Medicine Academy of Master Educators, 2005-present
• Member, Program Director Development Subcommittee of the Graduate Medical Education Committee, 2007-present
• Member, Academy of Master Educators Committee on Teaching Residents to Teach, 2007-present

Hoda Kaldas MD
• Renal organ system course, 1 lecture, Clinical Evaluation of Renal Functions, Workshop preceptor, 2014-15
• Lecturer and Organizer, Kidney Course for Internal Medicine Residents, Renal Consult Elective, 2014-present
• Faculty lecturer for Renal-Electrolyte Division Fellows Renal Lecture, Morbidity and Mortality Rounds and Case Reviews, 2015

Anthony Kanai PhD
• Participant, Medical School Curriculum: Problem Based Learning, Conferences and Workshops, MS-1 small group sessions, 2006-present
• Lecturer, “Nitric Oxide Signaling” in the Pharmacology Course: “Receptors and Signal Transduction”, 2001-present
• Lecturer, “Pharmacology of Autonomics Drugs I and II”, which includes 2 laboratories in the Pharmacology Course: “Principles of Pharmacology,” 2006-present
• Participant, 4th - 6th International Consultations on Incontinence, faculty member of the Cell Biology Committee, which results in the Textbooks: “Urinary Incontinence”, 2008-present

Ossama Kashlan PhD
• MSCBMP 2895 Summer Course in Cellular Physiology of the Kidney, 2014-present
• Facilitator team-based learning MED 5115, Cellular and Pathologic Basis of Disease, University of Pittsburgh School of Medicine, 2015
• Mentor, Neuroscience undergraduate student, 2015-present
• Mentor, Summer Undergraduate Research Program, 2015-present

Thomas Kleyman MD
• Director, T35 training grant that supports summer research activities for medical students, 2004-present
• Director, T32 training grant that supports predoctoral and postdoctoral trainees, 2002-present
• Director, Pittsburgh Center for Kidney Research. The center supports research cores, pilot project grants, training in specific methods, a summer undergraduate research program, and symposia focused on acute kidney injury, nephrotic syndrome, and protein trafficking, 2008-present
• Course organizer and director, Transport Physiology Journal Club, University of Pittsburgh School of Medicine Graduate Program. 2001-present
• Supervisor: 2 graduate students, 2015-2016
• Supervisor: 2 postdoctoral fellows, 2015-2016
• Mentor: 3 K awardees, 2015-2016
• Mentor: Summer Undergraduate Research Program, 2016
• Member, Thesis Committees for 2 graduate students, 2015-2016
• Facilitator, Renal Organ System Course, one lecture and five small group sessions, 2000-present
• Lecturer, Renal Fellow Lecture Series, 3 lectures, 2000-present
F. Aura Kullman PhD

- Mentor for the First Experiences in Research (FE-R) program (one undergraduate student, 5h/week for the spring semester), 2015
- Animal laboratory practical course for graduate students (MSMPhl 2310): 3/28/2016, 3/30/2016, 3h
- Small group workshop for medical students (Pharmacology Workshop: Pharmacokinetics; MS-1 Cellular & Path Basis of Disease), 1.5h, 2015

Kelly Liang MD

- Faculty lecturer for Renal-Electrolyte Division Fellows Renal Lecture, “Lupus nephritis,” University of Pittsburgh Medical Center, 2015
- Faculty lecturer for Renal-Electrolyte Division Fellow’s Renal Lecture, “Cardiorenal Syndrome,” University of Pittsburgh Medical Center, 2015
- Small Group Facilitator, Renal Organ System Course, University of Pittsburgh School of Medicine, 2009-2015
- Invited Speaker for Internal Medicine Residency Lecture Series, Shadyside Hospital, University of Pittsburgh, 2015
- Lecturer, “Cardiorenal Syndrome,” a review on pathophysiology and therapeutic strategies for optimal management of cardiorenal syndrome, 2015

Polly Mattila PhD

- Foundations of Biology Lab 2 BioSc0060, Spring 2015

Rajil Mehta MD

- Teaching nephrology fellows and transplant nephrology fellows, including formal lectures and informal teaching sessions, 2014-present.

Paul Palevsky MD

- Small group and pathology session facilitator, 2nd-year medical students Renal Block, University of Pittsburgh School of Medicine, 1989-present
- Lecturer, 2nd-year medical student Renal Block lecture, University of Pittsburgh School of Medicine, Acute Kidney Injury, 2003-present
- Lecturer, 2nd-year medical student Renal Block lecture, University of Pittsburgh School of Medicine, Acid-Base 2 Clinical Disorders, 1994-present
- Visiting Professor, University of Washington, Seattle, WA, September 2015
- Visiting Professor, The Ohio State University, Columbus, OH, January 2016
- Visiting Professor, Vanderbilt University, Nashville, TN, January 20016
- Visiting Professor, University of Virginia, Charlottesville, VA, February 2016
- Lecturer, Acute Kidney Injury: Prevention and Non-Dialytic Treatment, American Society of Nephrology Board Review Course and Update, Chicago, IL, 2015
- Lecturer, Case Discussions: Acute Kidney Injury and ICU Nephrology, American Society of Nephrology Board Review Course and Update, Chicago, IL, 2015
- Lecturer, Selecting a Modality of Renal Replacement Therapy, Critical Care Nephrology: 2015 Update, American Society of Nephrology, San Diego, CA, 2015
- Lecturer, Dosing Renal Replacement Therapy, Critical Care Nephrology: 2015 Update, American Society of Nephrology, San Diego, CA, 2015
- Lecturer, Dialysis and Water Safety, Water Management and Safety Webinar, VHA Center for Engineering & Occupational Safety and Health, 2015
• Lecturer, Debate: Timing of RRT in Acute Kidney Injury: Start early, AKI & CRRT, 21st International Conference on Critical Care Nephrology San Diego, CA, 2016
• Lecturer, Acute Kidney Injury: Highlights and Trends from 2015, ASN Highlights 2016: India, Mumbai, India, 2016
• Lecturer, Renal Support in Acute Kidney Injury, Nephrology 2015, Harvard Medical School, Boston, Massachusetts, 2016
• Lecturer, Contrast-Induced Nephropathy, Nephrology 2015, Harvard Medical School, Boston, Massachusetts, 2016
• Lecturer, Acute Renal Replacement Therapy: When and What, National Kidney Foundation, 2016 Spring Clinical Meetings, Boston, MA, 2016
• Lecturer, Quality of Care in Acute Kidney Injury: Don’t Add Insult to Injury, National Kidney Foundation, 2016 Spring Clinical Meetings, Boston, MA, 2016

Christopher Passero MD
• Lecturer, Renal Fellowship Noon Seminar, 2007-present
• Lecturer, Medicine Residents Noon Seminar, 2007-present
• Instructor, Shadyside Hospital Nephrology Consult Resident Elective, University of Pittsburgh Medical Center Shadyside Hospital, 2013-present
• Lecturer, Shadyside Hospital Open Heart Class for nursing, 2014-present

Beth Piraino MD
• Facilitator, Meeting with Prologue Students, 2010-present
• Facilitator, “Introduction to Being a Physician,” (MSI-8-9 students), 1998-present
• Facilitator, Renal Section of Body Fluid Homeostasis workshops, (MS II-9 students), 1993-present
• Facilitator, Evidence and Discovery in Medicine Block, Research Design Feb 10, 17, Mar 2, and Critical Appraisal Apr 13, 20, May 4 MSI, 2016
• Facilitator, Investigation and Discovery Course, Sep, Oct, Nov, Dec MSII, 2015 and 2016
• Facilitator, Population Medicine, MS II 16 students, Four SG sessions, each 1 ½ h, 2011- present
• FAST advisor, 2015 and 2016
• Practicing Medicine Feb 23, 2015 MSIV
• Clinical Experience MSI and II, 2015 and 2016

Chethan Puttarajappa MD
• Supervision of Renal Fellows' Journal Club, 2015
• Continuous Renal Replacement Therapy workshop (for Renal and Critical Care Medicine Fellows), 2015
• Transplant board review to Renal Fellows, 2015
• Supervision of Fellows Research activities to include post prophylactic CMV monitoring, pre-transplant coronary artery disease screening in kidney transplant candidates, Ganciclovir resistant CMV in kidney transplantation. 2014-2015

Mohan Ramkumar MD
• Faculty Lecturer (Residents) at VA ICU every month, two didactic lectures per year, 2014-present
• Preceptor (two Fellows), five didactic lectures per year, 2014-present
Evan Ray MD PhD
- Lecturer, University of Pittsburgh Department of Internal Medicine Grand Rounds. Potassium, Aldosterone, and Hypertension-How Physiology Informs Treatment, 2015
- Lecturer, University of Pittsburgh Medical Center Nephrology Fellowship Teaching Series. 2015-2016
- Lecturer, University of Pittsburgh BIOSC 1455 Human Endocrinology Course. Salt and Water Handling in Regulation of Extracellular Fluid Volume, 2015
- Lecturer, University of Pittsburgh Medical Center Critical Care Medicine Fellowship, Didactic Series Lecture / Video. Disorders of Plasma Potassium Concentration, 2015
- Facilitator, University of Pittsburgh Medical School 2nd-Year Medical Student Renal-Electrolyte Block, 2015
- Facilitator, University of Pittsburgh Medical School 4th-Year Medical Student Pharmacology Elective, Anti-hypertensives and Diuretics, 2015

Helbert Rondon-Berrios MD
- MD Program course co-director, Elective in Renal Disease - Oakland Campus, University of Pittsburgh School of Medicine, MD Program Course co-director. two students per month, 2013-present
- Lecturer, Renal Lecture Series, UPMC Renal Fellowship Training Program. Six lectures, 12 fellows, 2013-present
- Lecturer, Renal Fellowship Core Curriculum: 1-h lecture on various topics in nephrology for a group of 12 renal fellows, seven times a year, 2014-present
- Board Reviewer, Renal Fellows: 1-h session every other week for one month once a year, 2012-present
- Facilitator, Case Conference for Renal Fellows: 1-h session once every month, 2014-2015
- Lecturer, Internal Medicine Residency Acute Management Series for UPMC PUH/MUH: 1-h lecture once per year, 2014-present
- Lecturer, Internal Medicine Residency Acute Management Series for VAPHS: 1-h lecture once per year, 2014-present
- Lecturer, Internal Medicine Residency Acute Management Series for UPMC Shadyside: 1-h lecture once per year, 2014-present
- Lecturer, Internal Medicine Residency Noon Conference Series for UPMC PUH/MUH: 1-h lecture once per year, 2014-present
- Lecturer, Internal Medicine Residency Noon Conference Series for VAPHS: 1-h lecture once per year, 2014-present
- Lecturer, Internal Medicine Residency Noon Conference Series for UPMC Shadyside: 1-h lecture once per year, 2014-present
- Lecturer, Kidney Course: 1-h lecture three times per year, 2014-present
- Lecturer, Renal Organ System for MS II: Three 1-h lectures, 2014-present
- Facilitator, Renal Organ System for MS II: seven 2-h workshops, 2012-present
- Discussion Leader, Introduction of Being a Physician for MSI: Two 1.5 h workshops, 2014-2015
- Discussion Leader, Integrated Case Studies: Four 2h workshops, 2014-present
- Lecturer, Department of Medicine Grand Rounds for UPMC Shadyside, 2014-2015
- Lecturer, Department of Medicine Grand Rounds for UPMC Presbyterian, 2016
- Instructor, Medical Spanish: 2-h practice sessions once per year, 2014-present

Ankita Roy PhD
- Instructor, Cellular and Pathological Basis of Disease, Didactic teaching to medical students, University of Pittsburgh, 2013-present
• Lecturer, How-To talks, Molecular Biology Information Services, University of Pittsburgh, 2014-present

Ramya Sahasranamam, MD
• Instructor, inpatient teaching of residents or fellows during their rotation at Shadyside Hospital, 2015-2016
• Led discussions with PCPs in Wexford area emphasizing the importance of early nephrology referral for patients with CKD, 2015-2016

Jane Schell MD
• NephroTalk: “Train the Trainers” Workshop for Nephrology Educators, co-instructor and developer of a three-day communication skills workshop for 12 academic Nephrology Educators, University of Pittsburgh Medical Center, 2015
• NephroTalk, co-instructor and developer of three-day communication skills workshop for Nephrology Fellows, University of Pittsburgh Medical Center, 2012-present
• Critical Care Communication Workshop, co-instructor and organizer of three-day communication skills workshop for Pulmonary and Critical Care Fellows on palliative care and end-of-life topics, University of Pittsburgh Medical Center, 2012-present
• Advanced medical interviewing, communication skills facilitator on health literacy topics and motivational interviewing, University of Pittsburgh Medical Center, second- and third-year internal medicine residents, 2012-present
• Medical interviewing, communication skills facilitator for introductory communication skills, University of Pittsburgh Medical Center, first-year medical students, 2013-present
• Behavior Medicine Communication Skills, communication skills facilitator for motivational interviewing, University of Pittsburgh Medical School, first year medical students, 2015
• Clinical Experience 3 faculty leader, for Musicare, medical student volunteer group that plays music for patients in the hospital, 2016
• Faculty and Students Together (FAST) Faculty Advisor, FAST provides support and mentorship to first-year medical students, 2016

Nirav Shah MD
• Facilitator for 1st-year medical students on MLM: How to critically evaluate medical literature, 2005-present
• Facilitator, 2nd-year course lecture on pharmacology of hypertensive drugs, 2005-present

Shaohu Sheng, PhD
• MSCBMP 2855 Res. Seminar Molecular Physiology, 2016

Puneet Sood MD
• Lecturer, Transplantation Grand Rounds, Thomas Starzl Transplantation Institute, University of Pittsburgh Medical Center, “New Kidney Allocation System - One Year of Implementation,” 2016
• Lecturer, Optum Spotlight Conference, Pittsburgh, PA, “A History of Transplant Excellence, A Future of Innovation,” 2016

Arohan Subramanya MD
• Facilitator, MED 5127 Fundamentals of Basic Science Block, 2012-present
• Lecturer and Facilitator, Section 2: Cellular & Pathologic Basis of Disease MED 5217 Body Fluid Homeostasis, Renal Segment, 2009-present
• Facilitator, MSCBMP 2880 Cellular Biology of Normal and Disease States, 2010-present
• Lecturer and Facilitator, MSCBMP 2895 Summer Course in Cellular Physiology of the Kidney, 2014-2015

Department of Medicine
http://www.dom.pitt.edu/renal
• Facilitator, MED 5265 Investigation and Discovery, 2015-present
• Facilitator, MED 5181 Evidence Based Medicine-Applied, 2015-present
• Course Director, MSCBMP 2895 Summer Course in Cellular Physiology of the Kidney, 2016-present

Roderick Tan MD PhD
• Lecturer, University of Pittsburgh School of Pharmacy, Nephrology Patient Care elective (PHARM 5816), "IHD and CRRT" (2 hours), 2015
• Preceptor, Renal Journal Club, (24 hours, yearly), 2014-present
• PBL Facilitator, University of Pittsburgh School of Medicine, Introduction to Being a Physician (1 hour), 2015
• PBL Facilitator, University of Pittsburgh School of Medicine, Body Fluid Homeostasis – Renal Block (11.25 hours), 2015
• PBL Facilitator, University of Pittsburgh School of Medicine, Integrated Workshop 1 (2.5 hours), 2015
• Lecturer, University of Pittsburgh School of Pharmacy, Nephrology Patient Care (PHARM 5816, 2 hours), 2015
• Lecturer, Clinical Pharmacology Selective, “Diuretics and Edematous States” (2 hours), 2016
• Lecturer, Cellular Physiology of the Kidney (MSCBMP 2895, 2 hours), 2016
• Lecturer, Conemaugh Hospital Grand Rounds, Johnstown, PA, “CKDinform: A PCP’s Guide to CKD Detection and Delaying Progression,” 2016

Steven Truschel PhD
• Teaching Facilitator, Cellular and Pathologic Basis of Disease, University of Pittsburgh School of Medicine, Medical Student Team Based Learning (24 in group, 2 contact hours), 2015

Steven Weisbord MD
• University of Pittsburgh School of Medicine 2nd-year medical student Renal Block – Small group and pathology session facilitator, 2005-present
• University of Pittsburgh School of Medicine 2nd-year medical student lecture – Disorders of volume homeostasis, 2012-present

Ora Weisz PhD
• Lecturer: Foundations of Biomedical Science, 2015

Christine Wu MD
• Small Group Facilitator for Renal Course, University of Pittsburgh School of Medicine, MSII, 2015
• Faculty Lecturer (Fellows and Residents), IgA Nephropathy, Hematuria, Evaluation of Kidney Transplant Recipients, Evaluation of Kidney Donors, 2014-2016
• Faculty Lecturer: Dialysis and Transplantation, MSII, 2014-2016

Irina Zabbarova, PhD
• Animal Laboratory Demonstrator, Principles of Pharmacology (2310) Graduate Course, University of Pittsburgh, 2016
• Facilitator, Protein Sorting-Physiology and Pathophysiology, Cellular and Pathologic Basis of Disease/Pharmacology course, 2015
• Facilitator, Rational Use of Drugs Conference, Cellular and Pathologic Basis of Disease/Pharmacology course, 2015

http://www.dom.pitt.edu/renal
• Facilitator, Breast Cancer Pharmacology and Pathology, Cellular and Pathologic Basis of Disease/Pharmacology course, 2015
• Facilitator, G-Protein Coupled Receptor Drugs Conference, Cellular and Pathologic Basis of Disease/Pharmacology course, 2015
Fellowship Program

<table>
<thead>
<tr>
<th>Current Fellow</th>
<th>Medical School</th>
<th>Residency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baatarkhuu</td>
<td>Health Sciences University of Mongolia</td>
<td>Danbury Hospital, Danbury CT</td>
</tr>
<tr>
<td>Boyd</td>
<td>University of Pittsburgh Medical School</td>
<td>UPMC Presbyterian Shadyside</td>
</tr>
<tr>
<td>Centron Vinales</td>
<td>UTESA Universidad Tecnologica de Santiago, DR</td>
<td>New York Downtown Hospital, NY</td>
</tr>
<tr>
<td>Dorneich</td>
<td>Ianjin Medical University, China</td>
<td>St. John's Episcopal Hospital</td>
</tr>
<tr>
<td>Kaur</td>
<td>Government Medical College-Jammu, India</td>
<td>Fairview Hospital, OH</td>
</tr>
<tr>
<td>Lusica</td>
<td>De La Salle Health Sciences Institute, Philippines</td>
<td>Queens Hospital, NY</td>
</tr>
<tr>
<td>Ong</td>
<td>St. George's School of Medicine</td>
<td>University of Arizona, AZ</td>
</tr>
<tr>
<td>Paul</td>
<td>University of Western Australia Faculty of Medicine</td>
<td>Kaiser Foundation, CA</td>
</tr>
<tr>
<td>Pena Polanco</td>
<td>Pontificia Universidad Catolica Madre y Maestra (PUCMM) Facultad de Ciencias de la Salud</td>
<td>Yale-New Haven Medical Center, CT</td>
</tr>
<tr>
<td>Shamir</td>
<td>Kasturba Medical College, Manipal, India</td>
<td>Good Samaritan Hospital, MD</td>
</tr>
<tr>
<td>Sharma</td>
<td>Wayne State University</td>
<td>UPMC Presbyterian Shadyside</td>
</tr>
<tr>
<td>Tohme</td>
<td>Universite Saint Josephe Faculte de Medicine</td>
<td>University of Iowa Hospitals and Clinics</td>
</tr>
</tbody>
</table>

Departing Fellow | Current Position
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Boyd</td>
<td>Cary University of Pittsburgh, post doc/faculty (as of July 1, 2016)</td>
</tr>
<tr>
<td>Centron Vinales</td>
<td>Patricia Off cycle fellow, will complete fellowship on 1/4/17</td>
</tr>
<tr>
<td>Dorneich</td>
<td>Yan University of Pittsburgh, faculty as of 11/1/16</td>
</tr>
<tr>
<td>Kaur</td>
<td>Amandeep University of Pittsburgh, faculty as of 1/1/17</td>
</tr>
<tr>
<td>Pena</td>
<td>Julio Private practice physician, Athens, GA</td>
</tr>
<tr>
<td>Tohme</td>
<td>Fadi CCM fellow, UPMC</td>
</tr>
</tbody>
</table>

Fellows Abstracts and Clinical Vignettes


Tohme FA, Weisbord SD. Predictors and Outcomes of Non-Adherence in Chronic Hemodialysis Patients. Manuscript being reviewed by co-authors, May 2016.

Tohme FA, ..., Kelum JA. Renal Recovery at Hospital Discharge Is Associated with 1-Year Survival in Patients with Sepsis-Induced Acute Kidney Injury, 2016


Dorneich, Yan. GFR before, at start, and 1st visit after starting PD. NKF Spring Meeting. Dallas, Texas, 2015

**Fellow Awards and Honors**

Boyd, Cary, American Society of Nephrology, Ben J. Lipps Research Fellowship, 2016

**Fellow Presentations**

Pena, Julio, Membranoproliferative glomerulonephritis. University of Pittsburgh Medical Center Grand Rounds, Pittsburgh, PA, 2016

Pena, Julio, Primary Hyperoxaluria. UPMC Renal Grand Rounds, Pittsburgh, PA, 2016


Tohme, Fadi, Diuretics. UPMC Renal Grand Rounds, Pittsburgh, PA, November 2015

Tohme, Fadi, Metformin-Associated Lactic Acidosis. Morbidity & Mortality Conference, University of Pittsburgh Medical Center, Pittsburgh, PA, December 2015

Tohme, Fadi, Monoclonal Gammopathy of Renal Significance. UPMC Renal Grand Rounds, Pittsburgh, PA, April 2016


Paul, Rohan, Therapeutic Hypothermia in Decreased Organ Donors and Kidney-Graft Function, University of Pittsburgh Medical Center, Pittsburgh, PA, 2016

Paul, Rohan, Glomerular Diseases due to Fibrillary Deposits. University of Pittsburgh Medical Center, Pittsburgh, PA, 2015

Dorneich, Yan, Human Herpes Viral Infection in Adult Kidney Transplant Recipients, University of Pittsburgh Medicine Center Grand Rounds, Pittsburgh, PA, 2016

Kaur, Amandeep, ANCA-Associated Glomerulonephritis, University of Pittsburgh Medical Center, Pittsburgh, PA, January 2016

Ong, Eric, Diabetic Foot Infections, ID Week, Pittsburgh, PA, 2015


<table>
<thead>
<tr>
<th>Category</th>
<th>FY 2013</th>
<th>FY 2014</th>
<th>FY 2015</th>
<th>FY 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visits, Consultations, and Subsequent Care</td>
<td>26,701</td>
<td>29,164</td>
<td>30,029</td>
<td>29,283</td>
</tr>
<tr>
<td>Dialysis Treatments</td>
<td>11,138</td>
<td>11,439</td>
<td>11,450</td>
<td>11,662</td>
</tr>
<tr>
<td>TOTAL VOLUME</td>
<td>37,839</td>
<td>40,603</td>
<td>41,479</td>
<td>40,945</td>
</tr>
</tbody>
</table>

Inpatients at UPMC Presbyterian, Montefiore and Magee Hospitals with kidney and/or electrolyte disorders are cared for by rounding teams, comprising a physician, fellow, physician extender, residents, and medical students. A large number of renal replacement therapies are administered in the various intensive care units under the supervision of nephrology attending physicians and fellows. The division has continued to enhance its inpatient services, performing 11,620 inpatient dialysis treatments in FY 2016. The Renal Division also provides consultation services at UPMC St. Margaret, UPMC Shadyside, UPMC Mercy, UPMC Passavant and UPMC McKeesport and UPMC East, where Robert Denshaw MD serves as Chief of Renal Services.

The division's outpatient kidney and multidisciplinary specialty clinics treat patients with a wide variety of kidney and hypertensive disorders, with nephrologists and staff coordinating all aspects of patient testing and care. Division physicians care for patients with renal and electrolyte disorders at clinics throughout the metropolitan area, including University Center in Oakland, central and eastern suburbs (Shadyside, McKeesport, and Monroeville), northern suburbs (Passavant and St. Margaret's), and southern suburbs (Mount Lebanon). Our physicians also provide care for patients pre- and post-kidney transplant at clinics in Oakland, Erie (Hamot), West Mifflin, and Altoona. Our physicians collaborate with rheumatologists in providing patient care at the UPMC Lupus Clinic in Oakland. Evan Ray MD PhD collaborates with cardiology faculty in managing patients with complex hypertension at University Center. Jane Schell MD provides palliative renal care at our University Center site. Through the efforts of our nurse education coordinator, the division provides outpatient CKD education sessions at both University Center and community clinic locations. An increasing number of late-stage patients are expressing interest in home-dialysis modalities once educated on the range of available therapies.

Milestones included the development of a new clinical incentive plan for transplant nephrology faculty based upon team and individual achievement of delineated quality metric benchmarks.

The division has an active role at the VA Pittsburgh Healthcare System, with in-center hemodialysis and home peritoneal dialysis, as well as inpatient dialysis and a VA renal outpatient clinic. Division faculty members participate in
a growing kidney transplant program, and provide consultative support for distant facilities via the electronic medical record.

**Telemedicine**

In FY16, the division expanded its patient market by offering telemedicine services without additional resources and is currently providing telemedicine consults to outer ring UPMC hospitals. Hoda Kaldas MD is leading this effort.

**New Initiatives**

The Renal-Electrolyte Division established a collaboration with the UPMC Health Plan to identify and engage patients with advanced chronic kidney disease (CKD) who have not seen a nephrologist. To support primary care physicians in managing these complex patients, our physicians are providing assistance in medical management through electronic consults. Our division has also initiated a program in partnership with DCI and the UPMC Health Plan to provide a variety of support services for health plan members with advanced CKD. These includes educators, care managers, dietitians and pharmacists. The division is working with departmental leadership to establish Centers that focus on Glomerular Diseases and on Hypertension.
Clinic Locations

Renal-Electrolyte Locations

<table>
<thead>
<tr>
<th>Location</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPMC Arthritis and Autoimmunity Center at UPMC Mercy</td>
<td>UPMC Mercy, 1400 Locust Street, Suite 2100, Pittsburgh, PA 15219, USA</td>
</tr>
<tr>
<td>Arthritis and Internal Medicine - UPMC</td>
<td>Shadyside Place, 580 South Aiken Avenue, Pittsburgh, PA 15232, USA</td>
</tr>
<tr>
<td>Margolis Rheumatology - UPMC</td>
<td>Heinz 57 Center, 339 Sixth Avenue, 5th Floor, Pittsburgh, PA 15222, USA</td>
</tr>
<tr>
<td>UPMC Arthritis and Autoimmunity Center</td>
<td>Falk Medical Building, 3601 Fifth Avenue, Suite 2B, Pittsburgh, PA 15213, USA</td>
</tr>
<tr>
<td>UPMC Rheumatology Monroeville</td>
<td>UPMC Monroeville Oxford Drive, 600 Oxford Drive, Suite 210, Monroeville, PA 15146, USA</td>
</tr>
<tr>
<td>UPMC Bethel Park Rheumatology</td>
<td>2000 Oxford Drive, Suite 680, Bethel Park, PA 15102, USA</td>
</tr>
<tr>
<td>UPMC Arthritis and Autoimmunity Center - Wexford</td>
<td>117 VIP Drive, Suite 120, Wexford, PA 15090, USA</td>
</tr>
<tr>
<td>Margolis Rheumatology - UPMC St. Margaret</td>
<td>1 Medical Arts Building, 200 Delafield Drive, Suite 4040, Pittsburgh, PA 15215 USA</td>
</tr>
</tbody>
</table>
## Renal-Electrolyte and Rheumatology Location

<table>
<thead>
<tr>
<th>Location</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPMC Lupus Center of Excellence, Multispecialty Clinic</td>
<td>Medical Arts Building, 3798 Fifth Avenue, Pittsburgh, PA 15213, USA</td>
</tr>
</tbody>
</table>
CLINICAL QUALITY IMPROVEMENT INITIATIVES

In conjunction with the department’s response to Medicare’s Patient Quality Reporting Initiative, the division continues to report data quantifying its satisfaction of selected quality measures for covered services furnished to Medicare beneficiaries in its outpatient clinics, under the direction of Nirav Shah MD. The measures tracked include blood pressure management and lab testing in CKD stage 4/5 patients, as well as urine protein screening in patients with diabetes mellitus. All patients with advanced CKD are receiving dedicated education sessions to discuss all treatment options, including in-center and home dialysis modalities, transplantation, and palliative care options when appropriate. Our inpatient dialysis unit initiated an online program to monitor for chloramines, in addition to standard monitoring.

Hoda Kaldas MD is working on a project to improve patient education in the setting of acute kidney injury (AKI), with a focus on education after discharge using Healthwise, a new UPMC educational system. The goals are to ascertain whether patients are receiving appropriate follow up, to adjust medications, and to prevent the recurrence of AKI. Dr. Kaldas is also working on a project with Nirav Shah MD to insure that patients with advanced CKD receive immunizations for pneumococcus, influenza, and hepatitis B. Data was collected regarding rate of hepatitis B vaccination in patients with chronic kidney disease with Heena Sheth MD MPH. The Kidney Clinic is one of the sites for the IMPRESS study directed by Rohit Aggarwal MD. The goal is to improve pneumococcal immunization rates in subspecialty clinics. Hoda Kaldas MD is working on reduction of PICC line placement in patients with advanced CKD with Franziska Jovin MD.

Harry Hariharan MD and the Starzl Transplant Institute nephrology physicians monitor the transplant recipient evaluation checklists and selection outcomes documentation forms. They utilize the UNOS administrative scorecard for each transplant program.

National Organization Leadership and Journal Editors

- Gerard Apodaca PhD is a specialty editor for Frontiers in Cell and Developmental Biology, Membrane Traffic.
- Linda Fried MD MPH is an Associate Editor of the Clinical Journal of the American Society of Nephrology, and is an Associate Editor of NephSAP, CKD.
- Kevin Ho MD is an Associate Editor of Advances in Chronic Kidney Disease.
- Thomas Kleyman MD is the Deputy Editor-in-Chief of Physiological Reports.
- Paul Palevsky MD is the deputy editor of the Clinical Journal of the American Society of Nephrology, and is a Section Editor, Up to Date, Acute Renal Failure.
<table>
<thead>
<tr>
<th>Division</th>
<th>FY 2003 (Base Year)</th>
<th>FY 2014</th>
<th>FY 2015</th>
<th>FY 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renal-Electrolyte</td>
<td>26</td>
<td>45</td>
<td>48</td>
<td>48</td>
</tr>
</tbody>
</table>

Note: Includes University of Pittsburgh full-time faculty and volunteer faculty who have a UPP appointment and excludes research associates, adjunct faculty and emeritus faculty.

**Current Renal-Electrolyte Faculty**

**Full-Time Faculty**

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Degree</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Al-Bataineh</td>
<td>Mohammad</td>
<td>M. PhD</td>
<td>Instructor in Medicine</td>
</tr>
<tr>
<td>Apodaca</td>
<td>Gerard</td>
<td>L. PhD</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Baty</td>
<td>Catherine</td>
<td>J. PhD</td>
<td>Research Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Bender</td>
<td>Filitsa</td>
<td>H. MD</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Bernardo</td>
<td>Jose</td>
<td>F. MD</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Birder</td>
<td>Lori</td>
<td>A. PhD</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Carattino</td>
<td>Marcelo</td>
<td>D. PhD</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Chalasani</td>
<td>Geetha</td>
<td>MD</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Chen</td>
<td>Jingxin</td>
<td>MD</td>
<td>Research Associate</td>
</tr>
<tr>
<td>Fried</td>
<td>Linda</td>
<td>F. MD</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Gallo</td>
<td>Luciana</td>
<td>L. PhD</td>
<td>Research Associate</td>
</tr>
<tr>
<td>Hallows</td>
<td>Kenneth</td>
<td>R. MD, PhD</td>
<td>Adjunct Associate Professor of Medicine</td>
</tr>
<tr>
<td>Hanna-Mitchell</td>
<td>Ann</td>
<td>T. PhD</td>
<td>Adjunct Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Hariharan</td>
<td>Sundaram</td>
<td>MD</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Ho</td>
<td>Kevin</td>
<td>MD</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Hughey</td>
<td>Rebecca</td>
<td>P. PhD</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Ikeda</td>
<td>Youko</td>
<td>PhD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Jhamm</td>
<td>Manisha</td>
<td>MD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Johnston</td>
<td>James</td>
<td>R. MD</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Kaldas</td>
<td>Hoda</td>
<td>H. MD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Kanai</td>
<td>Anthony</td>
<td>J. PhD</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Kashlan</td>
<td>Ossama</td>
<td>B. PhD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Kleyman</td>
<td>Thomas</td>
<td>R. MD</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Kullmann</td>
<td>Florenta</td>
<td>A. PhD</td>
<td>Research Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Liang</td>
<td>Kelly</td>
<td>V. MD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Marciszyn</td>
<td>Allison</td>
<td>L. PhD</td>
<td>Research Associate</td>
</tr>
<tr>
<td>Mattila</td>
<td>Polly</td>
<td>E. PhD</td>
<td>Research Instructor in Medicine</td>
</tr>
<tr>
<td>Mehta</td>
<td>Rajil</td>
<td>B. MD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Montalbetti</td>
<td>Nicolas</td>
<td>PhD</td>
<td>Research Associate</td>
</tr>
<tr>
<td>Palevsky</td>
<td>Paul</td>
<td>M. MD</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Pastor Soler</td>
<td>Núria Maria</td>
<td>MD, PhD</td>
<td>Adjunct Associate Professor of Medicine</td>
</tr>
<tr>
<td>Piraino</td>
<td>Beth</td>
<td>M. MD</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Puttarajappa</td>
<td>Chethan</td>
<td>M. MD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Rogers</td>
<td>Natasha</td>
<td>M, PhD</td>
<td>Visiting Instructor in Medicine</td>
</tr>
</tbody>
</table>

Department of Medicine

[http://www.dom.pitt.edu/renal](http://www.dom.pitt.edu/renal)
<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rondon-Berrios</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Roy</td>
<td>Research Instructor in Medicine</td>
</tr>
<tr>
<td>Shah</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Sheng</td>
<td>Research Associate Professor of Medicine</td>
</tr>
<tr>
<td>Shi</td>
<td>Instructor in Medicine</td>
</tr>
<tr>
<td>Sood</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Subramanya</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Tan</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Truschel</td>
<td>Research Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Weisbord</td>
<td>Associate Professor of Medicine</td>
</tr>
<tr>
<td>Weisz</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Wu</td>
<td>Adjunct Research Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Zabbarova</td>
<td>Research Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Aarons</td>
<td>Clinical Professor of Medicine</td>
</tr>
<tr>
<td>Bahl</td>
<td>Clinical Professor of Medicine</td>
</tr>
<tr>
<td>Bahl</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Bialyn</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Casu</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Codario Jr.</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Grimes</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Hagg</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Johnston</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Martin</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Schmelz</td>
<td>Clinical Professor of Medicine</td>
</tr>
<tr>
<td>Varma</td>
<td>Clinical Instructor in Medicine</td>
</tr>
</tbody>
</table>

**Affiliated Faculty with UPP Appointments**

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denshaw</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Friedman</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Johnson</td>
<td>Clinical Professor of Medicine</td>
</tr>
<tr>
<td>Kamat</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Passero</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Ray</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Sahasranamam</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Waien</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
</tbody>
</table>

**Affiliated Faculty without UPP Appointments**

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belayev</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Bertani</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Caccamo</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Levenson</td>
<td>Clinical Professor of Medicine</td>
</tr>
<tr>
<td>Lipton</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Powell</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Ramkumar</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Raza</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
</tbody>
</table>

**Affiliated Faculty without UPP Appointments**

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aarons</td>
<td>Clinical Professor of Medicine</td>
</tr>
<tr>
<td>Bahl</td>
<td>Clinical Professor of Medicine</td>
</tr>
<tr>
<td>Bahl</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Bialyn</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Casu</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Codario Jr.</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Grimes</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Hagg</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Johnston</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Martin</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Schmelz</td>
<td>Clinical Professor of Medicine</td>
</tr>
<tr>
<td>Varma</td>
<td>Clinical Instructor in Medicine</td>
</tr>
</tbody>
</table>
## New Faculty Hires

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>MI</th>
<th>Degree</th>
<th>Primary Title</th>
<th>Division</th>
<th>Previous Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Al-Bataineh</td>
<td>Mohammad</td>
<td>M.</td>
<td>PhD</td>
<td>Instructor in Medicine</td>
<td>Renal-Electrolyte</td>
<td>Postdoctoral Scholar, University of Pittsburgh</td>
</tr>
<tr>
<td>Truschel</td>
<td>Steven</td>
<td>T.</td>
<td>PhD</td>
<td>Research Assistant Professor of Medicine</td>
<td>Renal-Electrolyte</td>
<td>Research Biologist, Carnegie Mellon U</td>
</tr>
</tbody>
</table>
# POST DOCS

## Current Post Docs in FY 2015-2016

<table>
<thead>
<tr>
<th>Employee Last Name</th>
<th>Employee First Name</th>
<th>Degree Code</th>
<th>Current Title</th>
<th>Summary of activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Al-Bataineh</td>
<td>Mohammad</td>
<td>DVM MS PhD</td>
<td>Postdoctoral Scholar</td>
<td>Dr. Al-Bataineh is studying how MUC1 in the kidney provides protection against ischemia-reperfusion injury (IRI) through the β-catenin pathway using a mouse model of IRI.</td>
</tr>
<tr>
<td>Alshogran</td>
<td>Osama</td>
<td>MS, PhD</td>
<td>International Postdoctoral Associate</td>
<td>Dr. Alshogran is studying the role of purinergic signaling and gap junction proteins in regulating fluid shear stress-stimulated endocytosis in human proximal tubule epithelia.</td>
</tr>
<tr>
<td>Bhattacharyya</td>
<td>Sohinee</td>
<td>PhD</td>
<td>International Postdoctoral Associate</td>
<td>Dr. Bhattacharyya is studying the regulation of flow stimulated endocytosis in polarized renal cells and mouse proximal tubules.</td>
</tr>
<tr>
<td>Dalghi</td>
<td>Marianela</td>
<td>PhD</td>
<td>International Postdoctoral Associate</td>
<td>Dr. Dalgi is studying the use of zebrafish to analyze protein interactions between uroplakin 3 and polarity proteins. She will also analyze how the mammalian protein promotes renal development.</td>
</tr>
<tr>
<td>Gallo</td>
<td>Luciano</td>
<td>PhD</td>
<td>International Postdoctoral Associate</td>
<td>Dr. Gallo is studying the regulation of stretch-induced exocytosis in the bladder epithelium. These studies involve the identification of a Rab27B-dependent pathway. She is also studying the regulation of microvilli formation by uroplakins and its interacting proteins, using polarized epithelial-derived kidney cells.</td>
</tr>
<tr>
<td>Krauson</td>
<td>Aram</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Krauson is studying the proton-gating mechanisms of acid sensing ion channel 1a (ASIC1a) using electrophysiological, biochemical and molecular biology techniques.</td>
</tr>
<tr>
<td>Maringer</td>
<td>Katherine</td>
<td>PhD</td>
<td>Postdoctoral Scholar</td>
<td>Dr. Maringer has been studying binding interaction and inter-regulation of AMP-activated protein kinase (AMPK) and the cystic fibrosis trans-epithelial receptor (CFTR) using HEK cells, and polarized bronchial epithelial cells. She has more recently begun studying a sub-population of kidney endothelial progenitor cells and their influence on the susceptibility and recovery following acute kidney injury (AKI) produced through unilateral ischemia reperfusion.</td>
</tr>
<tr>
<td>McDonnell</td>
<td>Bronaugh</td>
<td>PhD</td>
<td>International Postdoctoral Associate</td>
<td>Dr. McDonnell is studying the expression and function of non-neuronal (and neuronal) cells that play a role in urinary bladder function.</td>
</tr>
<tr>
<td>Mukherjee</td>
<td>Anindit</td>
<td>PhD</td>
<td>International Postdoctoral Associate</td>
<td>Dr. Mukherjee is studying the physiological roles of palmitoylation and palmitoyltransferases in regulating Epithelial Sodium Channel function.</td>
</tr>
<tr>
<td>Nie</td>
<td>Jun</td>
<td>MD PhD</td>
<td>International Postdoctoral Associate</td>
<td>Dr. Nie is investigating the role of innate receptor pathways, specifically Nlrp3-inflammasome- and TLR-MyD88-mediated activation in B cells and how this influences B cell functions in the context of transplantation. He is studying antibody production in mice lacking Nlrp3 or MyD88 specifically in B cells after transplantation, the impact of B cell intrinsic Nlrp3 or MyD88 deficiency on alloreactive T cell responses and</td>
</tr>
</tbody>
</table>

Department of Medicine  
http://www.dom.pitt.edu/renal
how these changes alter outcomes such as alloimmune memory, acute rejection, and chronic rejection using murine heart transplant models.

<table>
<thead>
<tr>
<th>Name</th>
<th>Title and Degree</th>
<th>Department</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raghavan</td>
<td>Venkatesan, PhD, International Postdoctoral Associate</td>
<td></td>
<td>Dr. Raghavan is studying the regulation of flow stimulated endocytosis in polarized epithelial cells.</td>
</tr>
<tr>
<td>Ray</td>
<td>Evan, MD, PhD, Postdoctoral Scholar/Clinical Instructor</td>
<td></td>
<td>Dr. Ray is examining physiologic regulation of ENaC as it pertains to renal sodium handling and blood pressure.</td>
</tr>
</tbody>
</table>
PUBLICATIONS

High Impact Publications


  Electronic health record (EHR) patient portals allow patients to access their medical records. There is limited information regarding portal use in nephrology patients. This work examined the adoption of an EHR portal, assessed secular trends, and examined the association of portal adoption and BP control. The authors found that selected vulnerable populations did not access the EMR portal.


  While AKI is a major risk factor for CKD, factors governing the transition from AKI to CKD are still poorly understood. The authors found that sustained activation of the Wnt/β-catenin pathway has an important role in driving the transition of AKI to CKD.


  While a low serum bicarbonate is associated with mortality in the CKD population, it is unclear whether bicarbonate and acid-base status is associated with mortality in healthy older individuals. The authors found that a low serum bicarbonate was associated with a higher mortality. This was independent of systemic pH and was regardless of whether the cause of low bicarbonate was metabolic acidosis or respiratory alkalosis. Metabolic alkalosis also associated with a higher mortality.


Weisbord SD. Patient-Centered Dialysis Care: Depression, Pain, and Quality of Life. Semin Dial. 2016 Mar-Apr;29(2):158-64


Department of Medicine http://www.dom.pitt.edu/renal
The Division of Rheumatology and Clinical Immunology continues to be a worldwide leader both clinically and academically and it is on the leading edge of research that offers patients the latest clinical therapies. UPMC has been named one of the top programs for rheumatology in the United States by U.S. News & World Report every year since 2007 and was ranked 9th in 2016. The Division includes physicians and faculty members who are included among the peer-selected Best Doctors in America.

Among this year’s highlights are:

- Innovative clinical and laboratory research programs
- Unique opportunities for future academic rheumatologists
- Extramural funding to investigate:
  - Pathogenesis of autoimmune disease
  - Systemic lupus erythematosus
  - Polymyositis
  - Rheumatoid arthritis
  - Vasculitis
  - Osteoarthritis
  - Systemic sclerosis
  - Sjögren’s syndrome
  - Pain in autoimmune diseases

We are committed to a mission of providing the highest quality care for patients with arthritis and autoimmune diseases, as well as mentoring and training medical students, residents, fellows, and junior faculty. Our research mission is to better understand arthritis, autoimmune, and other connective tissue diseases in order to improve diagnosis and therapies, with the goal of finding ways to cure and prevent these disorders.
RESEARCH

Extramural funding has increased slightly during the past year. Major faculty areas of investigative interest include basic mechanisms of tissue injury and pathogenesis, as well as clinical features, natural history and therapy of systemic sclerosis, systemic lupus erythematosus, polymyositis-dermatomyositis, rheumatoid arthritis, vasculitis, and osteoarthritis. The Division also has a T-32 fellowship in collaboration with the Department of Immunology.

Sarah Gaffen PhD has been named the Director of Basic Research in the Division of Rheumatology and Clinical Immunology. She will work with junior investigators and oversee our research laboratories.

Research activities included:

- Larry Moreland MD and Mandy McGeachy PhD received a third-year of competitive funding from NIAID and NIAMS to participate in a UH2 project as part of the Accelerating Medicines Partnership for Rheumatoid Arthritis (RA) and Systemic Lupus Erythematosus (SLE).
- Last year, Larry Moreland MD and Mandy McGeachy PhD initiated a clinical study in patients with rheumatoid arthritis. The MAZERATI study will examine the mechanisms of action between three commonly used biologic agents.
- Ghaith Noaiseh MD was invited to be a part of the Lupus Clinical Investigators Network (LuCIN). The LuCIN network is in its early stages, and Dr. Noaiseh will be part of the leadership group for this network.
- Continuing their work investigating the use of ACTHAR gel in myositis, Rohit Aggarwal MD MS and Chet Oddis MD received continued funding from Mallinckrodt to include additional patients and a new arm to their pilot study: Open Label Proof of Concept Study to Evaluate Efficacy and Safety of Adrenocorticotropic Hormone Gel in Refractory Dermatomyositis or Polymyositis.
- Rohit Aggarwal MD MS received funding from The Myositis Association to study novel outcome measures in adult myositis using a physical activity monitor.
- A proposal by Partha Biswas BVSc MVSc PhD, “Mechanisms of IL-17 mediated host defense in the kidney,” was funded as an R01 from NIH/NIDDK.
- Patrizia Fuschiotti PhD received funding from the Cutaneous Lymphoma Society to study the “Role of the interleukin 13 alpha 2 receptor (IL-13Ra2) in cutaneous T cell lymphoma.”
- Dr. Fuschiotti also received NIH funding for her R21 proposal: “Molecular pathways of Interleukin-13 in cutaneous T-cell lymphoma.”
- Sarah Gaffen PhD is participating as co-investigator on a study at Case-Western University to examine IL-17C mediated mechanisms of inflammation.
- Robert A. Lafyatis MD joined the academic rheumatology faculty in FY16 and brought with him a P50 award: “Novel Therapeutics and Precision Medicine in Systemic Sclerosis.”
• Dr. Lafyatis also transferred a P30 core center award for scleroderma research: “Rheumatic Diseases Research Core Centers.”
• The study, “Innate immunity in dermal fibrosis and systemic sclerosis,” was transferred as an R01 by Dr. Lafyatis to the University of Pittsburgh School of Medicine.
• Kimberly Liang MD, received a R21 funding for 3 years from NIH/NIAMS for her SEDRA study, to answer the question, “Does Sildenafil Improve Endothelial Dysfunction in Rheumatoid Arthritis?”
• Dr. Liang was awarded $70,000 from the Department of Medicine Junior Scholars’ competition which provides research assistance for her clinical studies.
• Mandy J. McGeachy PhD received funding from the Rheumatology Research Foundation to examine Th17/TFH cell function and regulation in rheumatoid arthritis patients.
• Larry Moreland MD, was invited by the Autoimmunity Centers of Excellence (ACE Network) as a site PI for the StopRA study to evaluate a strategy to prevent the onset of clinically-apparent rheumatoid arthritis using traditional disease-modifying drugs (DMARDs). Based on enrollment, this is $145,959 in funding.
• Larry Moreland MD, is working with colleagues at Harvard University on the TARGET-PET-CT study, which will use sophisticated PET-CT imaging to examine the effect of rheumatoid arthritis disease-modifying drugs (DMARDs) on vascular inflammation in patients with rheumatoid arthritis ($80,000).

**New Research Initiatives and Ongoing and Planned Collaborations**

New research initiatives include the following:
• **Rohit Aggarwal MD MSc** received funding from Pfizer for his immunization project. This new project, IMPRESS, will expand the immunization program to other Divisions in the Department of Medicine including cardiology, endocrinology, gastroenterology and hepatology, hematology/oncology, immunology, infectious diseases, nephrology and pulmonary.
Faculty Research Interests

Rohit Aggarwal MD MS
Dr. Aggarwal’s research interests include myopathies including Polymyositis, Dermatomyositis, Inclusion body myositis. He also studies autoimmune or connective-tissue-disease-related interstitial lung disease or pulmonary fibrosis.

Partha Biswas BVSc MVSc PhD
The Biswas laboratory’s research focus centers on understanding the impact of Interleukin-17 receptor signaling in renal immunity and autoimmunity by combining basic and translation research. The kidney is often subject to irreversible damage caused by infections and auto-inflammatory conditions. The incidence of end-stage kidney damage is increasing worldwide and represents a major clinical and economic burden. Currently there are no effective treatments for this fatal condition. The complex inflammatory cytokine network and renal inflammatory events that drive the progression of kidney injury to irreversible damage is poorly understood. The research program in the Biswas laboratory is divided into several areas, focused around IL-17 receptor signaling in the kidney: 1) Determining how IL-17 drives irreversible kidney damage, with the goal of revealing effective therapeutic approaches to block IL-17 signaling in chronic kidney diseases including lupus nephritis; 2) Defining the mechanisms of IL-17-mediated renal immunity against disseminated candidiasis and uropathogenic E. coli infection, and 3) Understanding the role of IL-17 receptor signaling in renal fibrosis, the final outcome of acute or chronic kidney diseases leading to kidney dysfunction.

Robyn Domsic MD MPH
Dr. Domsic’s research interest focuses on improving the care of patients with scleroderma. Her research to date has focused on creating and testing risk stratification strategies for scleroderma patients. These tools can be used to improve both patient care and clinical trial design. Her second research interest is Raynaud phenomenon and the vascular manifestations of scleroderma. Specifically, she is interested in novel imaging techniques for vascular involvement in scleroderma and assessing new outcome measures for testing therapies treating Raynaud phenomenon. Dr. Domsic continues to be actively involved in several multi-center clinical trials investigating potential therapies for the management of scleroderma and Raynaud phenomenon. She recently was awarded funding for an investigator-initiated trial examining the effect of atorvastatin on Raynaud phenomenon that will be completed only at the University of Pittsburgh.

Patrizia Fuschiotti PhD
Dr. Fuschiotti’s research interests center on the cellular and molecular mechanisms of pathogenesis by T cell and T cell-derived cytokines in chronic inflammatory conditions. Particular emphasis is given to the roles played by cytokine IL-13 and its receptors (IL-13Ra1 and IL-13Ra2) in fibrosis, autoimmunity, and cancer. The context of this work has been in human diseases primarily affecting the skin, namely systemic sclerosis (SSc), an autoimmune connective tissue disease whose main clinical feature is fibrosis, and cutaneous T cell lymphoma (CTCL). Dr. Fuschiotti has shown that IL-13 and its molecular pathways are involved in both diseases, acting as a major pro-fibrotic factor in SSc and as an autocrine factor for CTCL. In addition to understanding the underlying mechanisms of pathogenesis, Dr. Fuschiotti has also been developing strategies to target IL-13 and its molecular pathways for therapeutic relief.

Sarah Gaffen PhD
The immune system strikes a remarkably tight balance between controlling infections and limiting immunity to self. T cell-derived cytokines are a case in point; while critical for protecting against infectious disease, they also mediate pathology in autoimmunity. The Gaffen lab studies a cytokine called IL-17, which links innate and adaptive immunity through regulation of neutrophils and innate antimicrobial proteins. IL-17 and its receptor are unique in structure and sequence from other known cytokine families, and the Gaffen lab was among the first to study signaling mechanisms mediated by this novel protein. Dr. Gaffen’s group takes a variety of biochemical, molecular, and in vivo approaches to defining IL-17 biology. In terms of infections, the Gaffen lab was the first to demonstrate that IL-17 is critical for immunity
to mucosal fungal infection with the commensal fungus, Candida albicans, causative agent of oral and vaginal thrush and also of systemic candidiasis, a serious hospital-acquired infection with >50% mortality. Research in the Gaffen lab is heavily focused on defining the biological function of IL-17 and its receptor in the context of the oral mucosa. Treatment of autoimmune diseases has been revolutionized by biologic drugs that neutralize cytokines, such as etanercept (a TNF receptor antagonist) and tocilizumab (an IL-6 receptor antagonist). Many of these drugs target the Th17/IL-17 pathway, and antibodies to IL-17 were approved in 2016 for psoriasis. Dr. Gaffen's group aims to understand the physiological impact of cytokine blockade in humans, particularly with respect to the IL-17 signaling pathway.

**Yong Hwang MD**
Rheumatoid arthritis (RA) is a common immune-mediated disease. Patients with established RA indicate that 47% of patients continue to have widespread pain despite relatively low levels of inflammation. Dr. Hwang's current research interest is to identify subgroups of RA patients with distinct pain, inflammation, and psychosocial factors and to investigate whether there are different treatment responses among subgroups.

**Robert Lafyatis MD**
Dr. Lafyatis's laboratory focuses on understanding scleroderma (systemic sclerosis) and developing novel therapeutic approaches based on identifying biomarkers of the disease process and utilizing biomarkers in clinical trials. The lab's researchers have utilized a biomarker approach in a clinical trial of fresolimumab (anti-TGF-beta) to show a role for TGF-beta in skin fibrosis associated with systemic sclerosis. They are also applying their pharmacodynamic biomarker of skin disease to trials of tocilizumab (trial completed), and C-82 and rilonacept (ongoing). The lab has a particular interest in understanding the mechanisms stimulating immune response in systemic sclerosis, focusing on innate immune responses leading to fibrosis and vascular injury. Data show increased expression of interferon responsive genes in circulating monocytes of scleroderma patients, prompting current investigations into the stimulus for this pattern of gene expression and the effect of interferon on fibrosis and vascular injury. Most recently, Dr. Lafyatis and his team have been examining the transcriptome of single cells in the skin and lungs of patients with systemic sclerosis to better understand changes in gene expression in different immune and connective tissue cell types that lead to disease.

To aid in developing new therapies for systemic sclerosis, Dr. Lafyatis is studying the pathogenesis through existing murine models, particularly bleomycin-induced skin and lung fibrosis, testing novel therapeutics to clarify the relationship between innate immunity and fibrosis. The goal is to gain insight from these models that will enable us to propose more informative early phase clinical trials, utilizing biomarkers to show target engagement and as a surrogate clinical response.

**Kimberly Liang MD**
Dr. Liang's interests lie in the heterogeneity of rheumatic diseases and their link pathologically to atherosclerosis and vascular disease. Her current research focus is in the evaluation of risks, determinants, and management strategies of premature cardiovascular disease (CVD) in RA patients, through the use of novel noninvasive vascular studies that serve as measures of subclinical atherosclerosis and surrogate markers of future CVD events. Dr. Liang's NIH-funded K23 proposal investigates whether RA patients are more likely to develop vulnerable, atherosclerotic plaques than non-RA patients, as assessed by novel microbubble contrast-enhanced carotid ultrasound (CU) imaging techniques. Her Vasculitis Foundation-funded proposal investigates whether CU can differentiate between active disease vs. atherosclerotic damage in large vessel vasculitis. In addition, she is interested in developing expertise in novel vascular techniques and applying the technology to the diagnosis and follow-up of rheumatic disease patients with vascular diseases. Dr. Liang is actively engaged in multiple clinical trials and observational studies of patients with SLE, vasculitis, and RA.
Douglas Lienesch MD
Dr. Lienesch supports the clinical research efforts of the University of Pittsburgh Rheumatology through the Vasculitis and Rheumatoid Arthritis Centers.

Mandy McGeachy PhD
The McGeachy lab studies mechanisms of activation and regulation of Th17 cells in autoimmune inflammation. In the past decade, Th17 cells have garnered much attention as drivers of tissue inflammation, and therapies to target Th17-associated pathways are making remarkable progress in clinic. Dr. McGeachy’s research is uncovering unexpected roles for both immune and non-immune associated proteins in Th17 biology. For example, in one NIH-funded project, the lab has identified that integrin avß3 is expressed by Th17 cells and is important for their ability to induce inflammation in EAE, the mouse model of multiple sclerosis. Ongoing studies are now investigating the mechanisms through which avß3 integrins regulate Th17 inflammation in different tissues of the body, including LN. Dr. McGeachy is also studying inflammatory T cells in humans with rheumatoid arthritis, in a project recently funded by the Rheumatology Research Foundation to study effects of T cell costimulatory pathway blockade in RA. Biologic therapy in patients offers the opportunity to determine changes in T cells that are related to blockade of specific immune pathways, and researchers are collaborating with rheumatologists to conduct controlled longitudinal clinical studies to track changes in T cell populations that correspond blockade of TNF, CD28 or IL-6R. The University of Pittsburgh, including the McGeachy lab, is also one of five sites chosen nationally for the NIH/industry/foundation-funded Accelerating Medicines Partnership, which aims to dissect the immune networks that are active in different cellular populations isolated from RA joint tissues using state-of-the-art assays and bioinformatics.

Thomas Medsger MD
He has a national/international reputation for his clinical and translational research on systemic sclerosis (SSc). His interests include development of clinical and serologic classification and subset classification of SSc, serum autoantibodies in SSc, clinical features, organ system involvement and natural history of disease (morbidity and mortality). He co-created the University of Pittsburgh Scleroderma Patient Registry, a longitudinal database containing over 4000 patients. Dr. Medsger also developed a widely-used damage index for organs affected by SSc. Ten of his former research trainees have founded SSc research and patient care programs at other institutions. In 2016, the Department of Medicine created an endowed professorship for arthritis research in Dr. Medsger’s name. Dr. Medsger has over 280 peer-reviewed publications and over 150 invited works (textbook chapters, reviews).

Siamak Moghadam-Kia MD MPH
Dr. Moghadam-Kia’s research interests include inflammatory myopathies and biomarker clinical studies.

Niveditha Mohan MD
Dr. Mohan’s research centers on clinical trials in vasculitis.

Larry Moreland MD
Dr. Moreland’s research interest is in translational research for diseases such as rheumatoid arthritis, vasculitis, lupus and seronegative spondyloarthropathies. He has extensive experience in clinical trials and long-term registries for patients with autoimmune diseases. Specific areas of interest are pathogenesis, biomarkers, and outcomes research. He has extensive collaborations with colleagues at the University of Pittsburgh as well as numerous investigators at other academic institutions. He currently is Director of the University of Pittsburgh and UPMC Rheumatoid Arthritis Center and Vasculitis Center.

Ghaith Noaiseh MD
Dr. Noaiseh’s research interest involves studying how the overlap of autoimmune rheumatic diseases affects the clinical phenotype, disease course, and response to therapy—specifically, the overlap of Sjögren’s Syndrome with other autoimmune diseases, such as Systemic Lupus Erythematosus, myositis, and Scleroderma.
He is a site principal investigator for several randomized clinical trials assessing efficacy of different novel biological therapies in the management of Sjögren's Syndrome and Systemic Lupus Erythematosus.

Chester Oddis MD
Dr. Oddis’s primary research interest includes the clinical, epidemiologic, and serologic aspects of idiopathic inflammatory myopathy. He has written extensively on the diagnosis and management of patients with myositis, including the use of novel immunosuppressive agents such as tacrolimus. Dr. Oddis is the principal investigator on a recently awarded 5-year NIAMS contract (10/04-10/09) to study the efficacy of a novel biologic agent, rituximab, in adult and pediatric myositis. He has been a co-investigator on two NIH-funded osteoarthritis trials; one (DOXY study) tested the efficacy of doxycycline in preventing the progression of knee osteoarthritis in middle-aged women, and the second (GAIT) is assessing the effect of glucosamine and chondroitin sulfate on the pain of osteoarthritis and its radiographic progression.
Faculty Research and Other Scholarly Activities

Rohit Aggarwal MD MS
- Vice Chair, Scientific Committee, International Myositis Assessment & Clinical Studies (IMACS group), 2014-present
- Scientific Committee Member, International Conference on Myositis, 2016-present
- Member, Medical Advisory Board, The Myositis Association, 2014-present
- Co-Chair, American College of Rheumatology, Abstract Committee, Muscle Diseases, 2015-present
- Fellow Member, Committee on Research, American College of Rheumatology, 2007-present

Partha Biswas PhD
- Study Section Member, Congressionally Directed Medical Research Program, Department of Defense – Autoimmune Disease Panel study section, 2015
- Study Section Member, Rheumatology Research Foundation Innovative and Pilot Research Grant Program, 2015
- Ad-Hoc Reviewer, Competitive Medical Research Fund (CMRF), University of Pittsburgh, 2016
- Member, Medical Fellow Advisory Committee, 2013-2015
- Member, Post-Doctoral Fellow Advisory Committee, 2013-2015
- Member, Pediatric Rheumatology Fellow Advisory Committee, 2014-present
- Member, Rheumatology Fellow Advisory Committee, 2015-present
- Member, Faculty Advisory Committee, 2015-present
- Editorial Board, *Journal of Immunology, Infections and Inflammatory Disease*, 2015-present
- Editorial Board, *Cytokine*, 2016-present
- Junior Faculty Travel Award, American Association of Immunologists Annual Conference, New Orleans, LA, 2015
- Junior Faculty Travel Award, American Association of Immunologists Annual Conference, Seattle, WA, 2016

Robyn Domsic MD MPH
- Editorial Board, *Journal of Scleroderma and Related Disorders*, 2016-present

Sarah L Gaffen PhD
- Immunity & Host Defense (IHD) study section, standing, 2014
- University at Buffalo, State University of New York Training Grant external advisory board, 2010-present
- Editorial Board, *Cytokine and Growth Factor Reviews*, 2010-present
- Editorial Board, *Immunological Investigations*, 2001-present
- Associate Editor, *Cytokine*, 2006-present
- Section Editor, *Journal of Immunology*, 2014-present
- Associate Editor, *PLoS Pathogens*, 2014-present
- Reviewing Editor, *Journal of Biological Chemistry*, 2015-present

David J Helfrich MD
- ISCD Certified Bone Densitometrist, 2004-present

Robert Lafyatis MD
- International Workshop for Scleroderma, Co-Chair, 2005-present
- Global Fibrosis Foundation Medical Advisory Council, 2009-present
- Associate Editor, *Journal of Cell Communication and Signaling*, 2006–present
• Reviewer, *Arthritis & Rheumatism*, 2005-present
• Reviewer, *Annals of Rheumatic Diseases*, 2005-present
• Reviewer, *Journal of Investigative Dermatology*, 2005-present
• Reviewer, *American Journal of Pathology*, 2005-present
• Reviewer, *Journal of Cell Science*, 2005-present
• Reviewer, *British Journal of Dermatology*, 2005-present
• Reviewer, *Journal of Pathology*, 2005-present
• Reviewer, *PlosONE*, 2005-present
• Reviewer, *Journal of Rheumatology*, 2005-present
• Reviewer, *Journal of Immunology*, 2005-present

**Kimberly Liang MD**

• Member, Arthritis Foundation, 2005-present
• Associate Member, American College of Physicians–American Society of Internal Medicine (ACP-ASIM), 1998-present
• Member, American College of Rheumatology (ACR), 2005-present
• Member, American Medical Association (AMA), 1998-present
• Editorial Board, *Biomed Research International*, 2013-present
• Ad hoc Reviewer (among others):
  o *Arthritis and Rheumatology*, 2015-present
  o *Arthritis Care and Research*, 2015-present
  o *The Journal of Rheumatology*, 2015-present
• Received Masters of Science in Clinical Research from the Institute of Clinical Research Education (ICRE), University of Pittsburgh, May 2016

**Mandy McGeachy PhD**

• Ad-Hoc Reviewer, *Nature Immunology*, 2012-present
• Ad-Hoc Reviewer, *Immunity*, 2012-present
• Ad-Hoc Reviewer, *Blood*, 2012-present
• Ad-Hoc Reviewer, *Journal of Experimental Medicine*, 2012-present
• Ad-Hoc Reviewer, *European Journal of Immunology, Arthritis and Rheumatology*, 2012-present
• Ad-Hoc Reviewer, *PLOS One*, 2012-present
• Ad-Hoc Reviewer, *One Journal of Immunology*, 2012-present
• Editorial Board, *Cytokine*, 2014-present
• Member, Scientific Reports (Nature Publishing Group), 2015-present
• Australian MS Society, 2015
• Congressionally Directed Medical Research Program, Department of Defense Rheumatoid Arthritis, Pre-application Review, 2016

**Thomas A Medsger Jr. MD**

• Board of Directors, Scleroderma Foundation, Western PA Chapter, 1992-present, Treasurer, 1995-present
• Member, Scleroderma Foundation, New England Chapter Medical Advisory Board, 1998-present
• Scleroderma Clinical Trials Consortium, 1993-present
• Member, National Scleroderma Foundation Medical Advisory Board, 2011-present
• Peter Lee Memorial Visiting Professorship, University of Toronto, 2015

Niveditha Mohan MD
• Member, University of Pittsburgh School of Medicine Admissions Interviewing Committee, 2000-present

Larry W. Moreland MD
• Margaret Jane Miller Endowed Professor for Arthritis Research Chair, University of Pittsburgh, 2007-present
• NIAMS Clinical Trials Study Section, June 2016
• Member, American College of Rheumatology, 1987-present
• Member, American Society of Clinical Investigation (ASCI), 2000-present
• Member, American College of Physicians, 2007-present
• Member, American Federal for Clinical Research, 2006-present
• Member, American Association for the Advancement of Science, 2006-present
• ACR/EULAR Task Force for Development of Criteria for Early Rheumatoid Arthritis, 2008-present
• Member, Arthritis Foundation Peer Review Council for Training Awards, 2008-present
• Member, Arthritis Foundation RA Work Group, 2007-present
• Advisory Board Member, International Tumor Necrosis Factor Antagonists Work Group, 1998-present
• Editorial Board, Journal of Rheumatology, 1999-present
• Section Editor, Rheumatoid Arthritis Section, Current Rheumatology Reports, 1998-present
• Editorial Board, American Journal of Medicine, 2001-present
• Director, FOCIS (Federation of Clinical Immunology Societies), University of Pittsburgh, 2010-present
• Member, University of Pittsburgh Rehabilitation and Research Training Center Program, 2010-present
• Member, University of Pittsburgh Comparative Effectiveness Research Committee, 2010-present
• Member, University of Pittsburgh School of Medicine Ambassadors program, 2009-present

Ghaith Noaiseh MD
• Member, American College of Rheumatology, 2010-present
• Reviewer, Therapeutics and Clinical Risk Management, 2014-present
• Reviewer, Journal of Clinical Rheumatology, 2011-present
• Consensus Panel Member, Clinical Practice Guidelines Draft Recommendations on Rheumatological Manifestations of Management and Treatment in Sjogren's Patients, Sjogren's Syndrome Foundation, 2014-present

Chester V. Oddis MD
• Member, International Myositis Assessment and Clinical Studies (IMACS) Group, 2000-present
• Member, Research Grant Review Committee, The Myositis Association, 2001-present
• Member, IMACS- Scientific Committee 2016
• Member, International Myositis Classification Criteria Project, 2005-present
• Member, International Myositis Genetic Consortium (MYOGEN), 2006-present
• Member, Expert Consensus Delphi Panel: SCORDERMY: Building a prognostic score in dermatomyositis; Dr. Valerie Vuong, University of Paris Diderot, Bichat Hospital, Paris France, 2015
• Member, Corporate Relations Committee, American College of Rheumatology, 2014-present
• Associate Editor, Arthritis & Rheumatology, 2015-present

Thaddeus Osial MD
• Fellow, American College of Rheumatology, 2016
• Fellow, American College of Physicians, 2016
John Stewart Richards MD
- Member, American College of Physicians, 1996-present
- Member, American College of Rheumatology, 1996-present
- Member, International Society for Clinical Densitometry, 2004-present
- Member American Society for Bone and Mineral Research, 2008-present
- Member, Integrated Ethics Committee, 2008-2015
- Member, Veterans Affairs Rheumatology Field Advisory Committee, 2010-present
- Ad hoc Reviewer, Journal of Viral Hepatitis, 2016
- Ad hoc Reviewer, Seminars in Arthritis and Rheumatism, 2015
- Ad hoc Reviewer, The Open Rheumatology Journal, 2016
- Ad hoc Reviewer, Arthritis Care and Research, 2016

Terence Starz MD
- Reviewer, Pain abstracts for annual meeting, American College of Rheumatology, 2016
- Board of Directors, Great Lakes Region Arthritis Foundation, 2016
- Board of Directors, Western Pennsylvania Market of the Arthritis Foundation, 2016
- Member, Bone and Joint Decade Experts in Arthritis Advisory Committee, 2016
- Board of Directors, Pennsylvania Rheumatology Society, 2016
- Association for Rheumatology Healthcare Professionals National Practice Committee, 2016
- Member QI2T Health Innovators Fellowship, Jewish Healthcare Foundation mentor, 2015
- Member, Promoting healthy living activities for seniors in Allegheny County parks- 2016, Jewish Healthcare Foundation, 2015
- “Best Doctors in America”, 2014-present
- “Best Doctors in Pittsburgh”, 2014-present
- Arthritis Foundation National Health Care Professional of the Year, 2015
## GRANTS AND CONTRACTS AWARDED

<table>
<thead>
<tr>
<th>PUBLIC HEALTH SERVICE</th>
<th>DIRECT COSTS</th>
<th>INDIRECT COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RHEUMATODLY AND CLINICAL IMMUNOLOGY</strong></td>
<td><strong>FY 2015-2016</strong></td>
<td><strong>DEPARTMENT OF MEDICINE</strong></td>
</tr>
<tr>
<td><a href="http://www.dom.pitt.edu/rheum">http://www.dom.pitt.edu/rheum</a></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GRANT/CONTRACT</th>
<th>RECIPIENT(S)</th>
<th>AWARD AGENCY</th>
<th>TOTAL DIRECT COSTS</th>
<th>TOTAL INDIRECT COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BISWAS, PARTHA S.</td>
<td>TWIST1 SUBPHENOTYPES AND PULMONARY FIBROSIS</td>
<td>NHLBI</td>
<td>$10,699</td>
<td>$5,777</td>
</tr>
<tr>
<td>BISWAS, PARTHA S.</td>
<td>MECHANISMS OF IL-17 MEDIATED HOST DEFENSE IN THE KIDNEY</td>
<td>NIDDK</td>
<td>$191,559</td>
<td>$102,145</td>
</tr>
<tr>
<td></td>
<td>MECHANISMS OF B CELL RESPONSES IN AUTOIMMUNE DISEASE: A RANDOMIZED, DOUBLE-BLIND PLACEBO-CONTROLLED, PHASE II MULTICENTER TRIAL OF MONOCLONAL ANTIBODY TO CD20 (RITUXIMAB) FOR THE TREATMENT OF SYSTEMIC SCLEROSIS-ASSOCIATED PULMONARY ARTERIAL HYPERTENSION-CL</td>
<td>DUKE UNIVERSITY/ NIAID</td>
<td>$46,996</td>
<td>$0</td>
</tr>
<tr>
<td>DOMSIC, ROBYN</td>
<td>EVALUATING THE EFFECT OF ORAL ATORVASTATIN ON MICROVASCULAR ENDOTHELIAL FUNCTION AND RAYNAUD IN EARLYDIFFUSE SYSTEMIC SCLEROSIS (TAMER)</td>
<td>NIAID</td>
<td>$101,872</td>
<td>$54,265</td>
</tr>
<tr>
<td>DOMSIC, ROBYN</td>
<td>PATHOGENESIS OF SYSTEMIC SCLEROSIS IN HUMAN SKIN: THE ROLE OF SKIN-RESUDEBT CD8+ T CELLS</td>
<td>NIAMS</td>
<td>$50,000</td>
<td>$27,000</td>
</tr>
<tr>
<td>FUSCHIOTTI, PATRIZIA</td>
<td>NEGATIVE CONTROL OF IL-17R SIGNALING: IMPLICATIONS FOR FUNGAL IMMUNITY</td>
<td>NIAID</td>
<td>$220,424</td>
<td>$118,302</td>
</tr>
<tr>
<td>GAFFEN, SARAH</td>
<td>IL-17 RECEPTOR SIGNALING IN THE ORAL MUCOSA</td>
<td>NIDCR</td>
<td>$286,965</td>
<td>$144,662</td>
</tr>
<tr>
<td>GAFFEN, SARAH</td>
<td>IL-23 STAT3 DRIVEN ORAL IMMUNE RESPONSES TO CANDIDA ALBICANS</td>
<td>NIDCR</td>
<td>$225,000</td>
<td>$121,500</td>
</tr>
<tr>
<td>GAFFEN, SARAH</td>
<td>IL-17C MEDIATED MECHANISMS OF INFLAMMATION</td>
<td>CASE WESTERN UNIVERSITY/ NINR</td>
<td>$13,848</td>
<td>$7,343</td>
</tr>
<tr>
<td>LAFYATIS, ROBERT</td>
<td>NOVEL THERAPEUTICS AND PRECISION MEDICINE IN SYSTEMIC SCLEROSIS</td>
<td>UNIVERSITY OF CALIFORNIA - SAN FRANCISCO/ NIAID</td>
<td>$202,575</td>
<td>$109,392</td>
</tr>
<tr>
<td>LAFYATIS, ROBERT</td>
<td>AUTOIMMUNITY CENTER OF EXCELLENCE CLINICAL RESEARCH PROGRAM</td>
<td>BOSTON UNIVERSITY/ NIAMS</td>
<td>$53,763</td>
<td>$29,032</td>
</tr>
<tr>
<td>LAFYATIS, ROBERT</td>
<td>RHEUMATIC DISEASES RESEARCH CORE CENTERS</td>
<td>BOSTON UNIVERSITY/ NIAMS</td>
<td>$85,744</td>
<td>$46,302</td>
</tr>
<tr>
<td>LAFYATIS, ROBERT</td>
<td>INNATE IMMUNITY IN DERMAL FIBROSIS AND SYSTEMIC SCLEROSIS</td>
<td>NIAMS</td>
<td>$119,900</td>
<td>$64,746</td>
</tr>
</tbody>
</table>

*Department of Medicine | [http://www.dom.pitt.edu/rheum](http://www.dom.pitt.edu/rheum)*
<table>
<thead>
<tr>
<th>Name</th>
<th>Grant Title</th>
<th>Sponsor</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liang, Kimberly</td>
<td>Identifying Vulnerable Plaque in Rheumatoid Arthritis</td>
<td>NIAMS</td>
<td>$116,425</td>
<td>$9,314</td>
</tr>
<tr>
<td>McGeachy, Mandy J.</td>
<td>Regulation of Th17 Functions in Autoimmune CNS Inflammation</td>
<td>NIAID</td>
<td>$240,238</td>
<td>$125,950</td>
</tr>
<tr>
<td>Moreland, Larry W.</td>
<td>Central Pain Mechanisms, Pain Intensity and Drug Response in Rheumatoid Arthritis</td>
<td>Brigham and Women's Hospital, Inc./NIAMS</td>
<td>$52,833</td>
<td>$26,528</td>
</tr>
<tr>
<td>Moreland, Larry W.</td>
<td>Novel Methods for the Conduct of Clinical Trials</td>
<td>University of Pennsylvania / NHLBI</td>
<td>$14,488</td>
<td>$7,824</td>
</tr>
<tr>
<td>Moreland, Larry W.</td>
<td>Adaptation and Validation of PROMIS for Use in Vasculitis</td>
<td>University of Pennsylvania / NIAMS</td>
<td>$3,347</td>
<td>$1,807</td>
</tr>
<tr>
<td>Moreland, Larry W.</td>
<td>Treatments Against RA and Effect on FDG PET CT: The Target Trial</td>
<td>Brigham and Women's Hospital, Inc./NIAMS</td>
<td>$2,598</td>
<td>$1,402</td>
</tr>
<tr>
<td>Moreland, Larry W.</td>
<td>Vasculitis Clinical Research Consortium</td>
<td>University of Pennsylvania/NIAMS</td>
<td>$32,452</td>
<td>$17,524</td>
</tr>
<tr>
<td>Moreland, Larry W.</td>
<td>UPITT Rheumatoid Arthritis Combined Center (UPITT RACC)</td>
<td>NIAMS</td>
<td>$178,012</td>
<td>$71,989</td>
</tr>
<tr>
<td>Noaïseh, Ghaith</td>
<td>Treatments of SLE with Ajulemic Acid, a Non-psychoactive Cannabinoid Derivative</td>
<td>Feinstein Institute for Medical Research/NIAMS</td>
<td>$10,000</td>
<td>$5,400</td>
</tr>
<tr>
<td>Oddis, Chester V.</td>
<td>Mechanisms of B Cell Responses in Autoimmune Disease, a Randomized, Double-Blind Placebo-Controlled Phase II Multicenter Trial of Monoclonal Antibody to CD20 (Rituximab) - (Lab)</td>
<td>Duke University/NIAID</td>
<td>$47,685</td>
<td>$25,035</td>
</tr>
<tr>
<td>Oddis, Chester V.</td>
<td>Studies of the Natural History and Pathogenesis of Autoimmune and Connective Tissue Diseases (MTA)</td>
<td>NIEHS</td>
<td>$2,435</td>
<td>$1,315</td>
</tr>
<tr>
<td><strong>Total Public Health Service</strong></td>
<td></td>
<td></td>
<td><strong>$2,309,858</strong></td>
<td><strong>$1,124,554</strong></td>
</tr>
</tbody>
</table>

**Society and Foundations**

<table>
<thead>
<tr>
<th>Name</th>
<th>Grant Title</th>
<th>Sponsor</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abelson, Michelle R.</td>
<td>IL-17-Mediated Regulation of C/EBPbeta: Signaling and Response in Arthritis</td>
<td>Arthritis Foundation</td>
<td>$25,000</td>
<td>$0</td>
</tr>
<tr>
<td>Aggarwal, Rohit</td>
<td>Novel Outcome Measures in Adult Myositis Using a Physical Activity Monitor and the PROMIS Physical Function Assessments</td>
<td>Myositis Association</td>
<td>$23,148</td>
<td>$1,852</td>
</tr>
<tr>
<td>Name</td>
<td>Project Description</td>
<td>Awarding Organization</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>--------------</td>
<td>----------------</td>
</tr>
<tr>
<td>BISWAS, PARTHA S.</td>
<td>TYPE I INTERFERON AND THE MECHANISM OF TNF ANTAGONIST IN RA</td>
<td>RHEUMATOLOGY RESEARCH FOUNDATION</td>
<td>$69,000</td>
<td>$6,000</td>
</tr>
<tr>
<td>BISWAS, PARTHA S.</td>
<td>AAI CAREERS IN IMMUNOLOGY FELLOWSHIP</td>
<td>AMERICAN ASSOCIATION OF IMMUNOLOGISTS</td>
<td>$5,619</td>
<td>$0</td>
</tr>
<tr>
<td>DOMSIC, ROBYN</td>
<td>THE SCLERODERMA PATIENT-CENTERED INTERVENTION NETWORK (SPIN) COHORT</td>
<td>JEWISH GENERAL HOSPITAL</td>
<td>$4,700</td>
<td>$0</td>
</tr>
<tr>
<td>DOMSIC, ROBYN</td>
<td>GENOME RESEARCH IN AFRICAN AMERICAN SCLERODERMA PATIENTS (GRASP)</td>
<td>JOHNS HOPKINS UNIVERSITY</td>
<td>$2,770</td>
<td>$830</td>
</tr>
<tr>
<td>DOMSIC, ROBYN</td>
<td>A PHASE II STUDY TO EVALUATE THE SUBCUTANEOUS ABATACEPT VS PLACEBO IN DIFFUSE</td>
<td>UNIVERSITY OF MICHIGAN / BRISTOL</td>
<td>$17,667</td>
<td>$5,300</td>
</tr>
<tr>
<td>DOMSIC, ROBYN</td>
<td>CYCLOPHOSPHAMIDE OR CYTOKINES IN SCLERODERMA CYTOPLASM OR TRANSPLANTITION</td>
<td>DUKE UNIVERSITY</td>
<td>$6,885</td>
<td>$3,546</td>
</tr>
<tr>
<td>FUSCHIOTTI, PATRIZIA</td>
<td>ROLE OF THE INTERLEUKIN 13 ALPHA 2 RECEPTOR (IL-13RA2) IN CUTANEOUS T CELL LYMPHOMA</td>
<td>CUTANEOUS LYMPHOMA FOUNDATION</td>
<td>$11,500</td>
<td>$1,000</td>
</tr>
<tr>
<td>MORELAND, LARRY W.</td>
<td>ENHANCING PATIENTS ABILITY TO UNDERSTAND AND UTILIZE COMPLEX INFORMATION CONCERNING</td>
<td>UNIVERSITY OF NORTH CAROLINA/ PCORI</td>
<td>$1,801</td>
<td>$721</td>
</tr>
<tr>
<td>MORELAND, LARRY W.</td>
<td>RITAZAREM: AN INTERNATIONAL, OPEN LABEL, RANDOMIZED, CONTROLLED TRIAL COMPARING RTX</td>
<td>UNIVERSITY OF PENNSYLVANIA</td>
<td>$18,736</td>
<td>$5,621</td>
</tr>
<tr>
<td>MORELAND, LARRY W.</td>
<td>PLASMA EXCHANGE AND GLUCOCORTICOIDS FOR TREATMENT OF ANCA-ASSOCIATED VASCULITIS</td>
<td>UNIVERSITY OF PENNSYLVANIA / FDA</td>
<td>$8,587</td>
<td>$4,637</td>
</tr>
<tr>
<td>MORELAND, LARRY W.</td>
<td>LIVE CELL AUTOACTIVE B-CELL CAPTURE FOR ADVANCED ANALYTICS IN RA</td>
<td>UNIVERSITY OF MINNESOTA</td>
<td>$9,260</td>
<td>$740</td>
</tr>
<tr>
<td>MORELAND, LARRY W.</td>
<td>ABATACEPT (CTLA4-LG) FOR THE TREATMENT OF RELAPSING, NON-SEVERE, GRANULOMATOSIS WITH</td>
<td>CLEVELAND CLINIC</td>
<td>$3,032</td>
<td>$910</td>
</tr>
<tr>
<td>Name</td>
<td>Project Description</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
<td></td>
</tr>
<tr>
<td>---------------------------</td>
<td>--------------------------------------------------------------------------------------</td>
<td>---------------</td>
<td>---------------</td>
<td></td>
</tr>
<tr>
<td>ODDIS, CHESTER V.</td>
<td>Analysis and Cleansing of Osteoarthritis Initiative (OAI) and the Pivotal Osteoarthritis MRI Analyses (POMA) Data</td>
<td>$71,774</td>
<td>$0</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL SOCIETY AND FOUNDATIONS</strong></td>
<td></td>
<td>$279,479</td>
<td>$31,157</td>
<td></td>
</tr>
<tr>
<td><strong>INDUSTRY</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AGGARWAL, ROHIT</td>
<td>Open Label Proof of Concept Study to Evaluate Efficacy and Safety of Adrenocorticotropic Hormone Gel in Refractory Dermatomyositis or Polymyositis (Admin Core)</td>
<td>$107,597</td>
<td>$31,692</td>
<td></td>
</tr>
<tr>
<td>DOMSIC, ROBYN</td>
<td>Double-Blind, Randomized, 8-Week Placebo-Controlled, and 16-Week Open Label Extension Study Investigating the Safety, Pharmacokinetics and Pharmacodynamics of SAR100842 Given Orally to Patients with Diffuse Cutaneous Systemic Sclerosis</td>
<td>$7,755</td>
<td>$1,939</td>
<td></td>
</tr>
<tr>
<td>DOMSIC, ROBYN</td>
<td>A Phase 2, Proof-Of-Concept, Multicenter, Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Safety, Tolerability, Pharmacokinetics, Pharmacodynamics and Efficacy of Pomalidomide (CC-4047) in Subjects with Diffuse Cutaneous Systemic Sclerosis</td>
<td>$30,126</td>
<td>$6,397</td>
<td></td>
</tr>
<tr>
<td>DOMSIC, ROBYN</td>
<td>Extracellular Matrix (ECM) Remodeling Biomarkers in Systemic Sclerosis</td>
<td>$9,389</td>
<td>$5,539</td>
<td></td>
</tr>
<tr>
<td>DOMSIC, ROBYN</td>
<td>A Phase 2A Double-Blind, Randomized, Placebo-Controlled Crossover Trial of the Pharmacokinetics, Safety, Tolerability and Acute Peripheral Vascular Effects of Topical Alprostadil in Subjects with Raynaud's Phenomenon Secondary to Sclerosis (SSC, Scleroder)</td>
<td>$36,679</td>
<td>$835</td>
<td></td>
</tr>
</tbody>
</table>

Department of Medicine

http://www.dom.pitt.edu/rheum
<table>
<thead>
<tr>
<th>Research Project</th>
<th>Description</th>
<th>Responsible Party</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOMSIC, ROBYN</td>
<td>Analysis of research endpoints to a Bayer clinical trial</td>
<td>COVANCE CENTRAL LABORATORY SERVICES</td>
<td>$123,017</td>
<td>$72,580</td>
</tr>
<tr>
<td>DOMSIC, ROBYN</td>
<td>A phase 2, double-blind, randomized, placebo-controlled multicenter study to evaluate safety, tolerability, efficacy, and pharmacokinetics of JBT-101 in diffuse cutaneous systemic sclerosis, agreement executed with Corbus Pharmaceuticals (sponsor) has bee</td>
<td>CORBUS PHARMACEUTICALS</td>
<td>$28,493</td>
<td>$3,146</td>
</tr>
<tr>
<td>DOMSIC, ROBYN</td>
<td>Scleroderma treatment with Celution processed adipose derived regenerative cells (STAR): A randomized, double-blind, placebo-controlled trial with incomplete crossover</td>
<td>CYTORI THERAPEUTICS, INC.</td>
<td>$95,445</td>
<td>$16,507</td>
</tr>
<tr>
<td>GAFFEN, SARAH</td>
<td>Cytokine synergy in control of fungal infections</td>
<td>JANSSEN PHARM</td>
<td>$68,032</td>
<td>$40,139</td>
</tr>
<tr>
<td>LEVESQUE, MARC</td>
<td>Identification of the PBMC gene signature that predicts requirement for aggressive therapy such as tofacitinib RA</td>
<td>UCB, INC.</td>
<td>$77,924</td>
<td>$7,392</td>
</tr>
<tr>
<td>MCGEACHY, MANDY J.</td>
<td>Prospective, observational safety study of patients with granulomatosis with polyangiitis (Wegener’s) or microscopic polyangiitis treated with rituximab</td>
<td>GENENTECH, INC. IN COLLABORATION WITH BIOGEN IDEC, INC.</td>
<td>$5,728</td>
<td>$2,188</td>
</tr>
<tr>
<td>MORELAND, LARRY W.</td>
<td>RF, CCP, SSA and more? SSA and other CTD autoantibody’s prevalence in African-American patients with rheumatoid arthritis (ASPIRE)</td>
<td>PFIZER INC.</td>
<td>$22,267</td>
<td>$5,517</td>
</tr>
<tr>
<td>Name</td>
<td>Project Description</td>
<td>Company/Institution</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>-----------------</td>
<td>--------------------------------------------------------------------------------------</td>
<td>--------------------------------------------</td>
<td>--------------</td>
<td>----------------</td>
</tr>
<tr>
<td>MORELAND, LARRY</td>
<td>MECHANISTIC STUDIES OF B- AND T-CELL FUNCTION IN RHEUMATOID ARTHRITIS PATIENTS TREATED WITH TNF ANTAGONISTS, TOCILZUMAB OR ABATACEPT (MAZERATI), AMENDMENT 1</td>
<td>BRISTOL MEYERS-SQUIBB</td>
<td>$41,930</td>
<td>$12,579</td>
</tr>
<tr>
<td>W.</td>
<td>RHEUMATOID ARTHRITIS COMPARATIVE EFFECTIVENESS RESEARCH (RACER) LONGITUDINAL EXTENSION STUDY</td>
<td>GENENTECH, INC.</td>
<td>$312,448</td>
<td>$78,112</td>
</tr>
<tr>
<td>NOAISEH, GAITH</td>
<td>A PHASE 2A, RANDOMISED, PLACEBO-CONTROLLED, PROOF OF MECHANISM STUDY TO EVALUATE THE SAFETY AND EFFICACY OF AMG557/MEDI5872 IN SUBJECTS WITH PRIMARY SJOGREN’S SYNDROME</td>
<td>MEDIMMUNE</td>
<td>$57,875</td>
<td>$6,084</td>
</tr>
<tr>
<td></td>
<td>A MULTICENTRE, RANDOMISED, DOUBLE-BLIND, PLACEBO-CONTROLLED, PHASE 3 STUDY EVALUATING THE EFFICACY AND SAFETY OF ANIFROLUMAB IN ADULT SUBJECTS WITH ACTIVE SYSTEMIC LUPUS ERYTHEMATOSUS</td>
<td>ASTRazeneca</td>
<td>$16,981</td>
<td>$0</td>
</tr>
<tr>
<td></td>
<td>A PHASE II MULTICENTER, RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED, DOSE-RANGE FINDING STUDY TO EVALUATE SAFETY AND EFFICACY OF ALX-0061 (“STUDY DRUG”) ADMINISTERED SUBCUTANEOUSLY IN SUBJECTS WITH MODERATE TO SEVERE ACTIVE SYSTEMIC LUPUS ERYTHEMATOSUS</td>
<td>ABLYNX</td>
<td>$11,760</td>
<td>$0</td>
</tr>
<tr>
<td></td>
<td>A MULTICENTRE, RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED, PHASE 2 STUDY EVALUATING THE EFFICACY AND SAFETY OF ANIFROLUMAB IN ADULT SUBJECTS WITH ACTIVE LUPUS NEPHRITIS</td>
<td>ASTRazeneca</td>
<td>$18,175</td>
<td>$0</td>
</tr>
<tr>
<td></td>
<td>PHASE 3B/4 RANDOMIZED SAFETY ENDPOINT STUDY OF 2 DOSES OF TOFACITINIB IN COMPARISON TO A TUMOR NECROSIS FACTOR (TNF) INHIBITOR IN SUBJECTS WITH RHEUMATOID ARTHRITIS</td>
<td>PFIZER, INC.</td>
<td>$19,086</td>
<td>$4,771</td>
</tr>
<tr>
<td>Direct Costs</td>
<td>Indirect Costs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>----------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>NOAISEH, GAITH</strong></td>
<td><strong>ODDIS, CHESTER V.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A PHASE III, RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED, MULTICENTER STUDY OF THE EFFICACY AND SAFETY OF FOUR 12-WEEK TREATMENT CYCLES (48 WEEKS TOTAL) OF EPRATUZUMAB IN SYSTEMIC LUPUS ERYTHEMATOSUS SUBJECTS WITH MODERATE TO SEVERE DISEASE (EMBODY 1)</td>
<td>TOCILZUMAB IN THE TREATMENT OF REFRACTORY POLYMYOSITIS AND DERMATOMYOSITIS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UCB, INC.</td>
<td>GENENTECH, INC.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$2,544</td>
<td>$498,511</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$0</td>
<td>$149,553</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL INDUSTRY</strong></td>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$1,605,434</td>
<td>$4,194,771</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$436,004</td>
<td>$1,591,715</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PUBLIC HEALTH SERVICE** | **SOCIETY AND FOUNDATIONS** | **INDUSTRY** |
| $2,309,858 | $279,479 | $1,605,434 |
| $1,124,554 | $31,157 | $436,004 |
| **TOTAL** | **TOTAL** |
| $4,194,771 | $1,591,715 |
TEACHING ACTIVITIES

Division faculty members have extensive teaching responsibilities, both in the Department of Medicine (DOM) and in the School of Medicine. Faculty members are involved at all levels of the educational process, from directing first-year courses to having medical students participate in a four-week Rheumatology elective. Interns and more senior Internal Medicine residents rotate on the Rheumatology Service for two to four weeks. Faculty and fellows teach residents in the Rheumatology Clinics during their ambulatory medicine block. Faculty members also lecture at the annual DOM Update in Internal Medicine conference series.

Our clinical training for fellows includes a comprehensive didactic curriculum involving the Summer Didactic Lecture Series, Immunology Lecture Series, monthly Journal Club, monthly radiology conferences, and weekly Grand Rounds. All of these activities have direct faculty supervision and, thus, intimate contact between fellows in training and academic faculty. We currently have six clinical fellows in either their first or second year.
Teaching Honors and Awards

Antonio Achkar MD

- Attending, Resident teaching primarily at UPMC Shadyside. Residents rotate for their rheumatology elective, 1995-present
- Lecturer, Didactic lectures on rheumatology topics at noon conference for UPMC Shadyside residents, 2014-present
- Lecturer, Arthritis Foundation, Rheumatoid Arthritis, October 3, 2015

Rohit Aggarwal MD MS

- Lecturer, Immunology in Health and Disease, 2014-present
- Clinico-pathological Correlation of ILD elective, 2013-present
- Course Director, Medical Student, Senior rheumatology elective, 2012-present
- Course Director, Medical Student, Senior research elective, 2012-present
- Course Coordinator, Advance Physical Examination, 2011-present
- Course Coordinator, Introduction to Physical Examination, 2011-present
- Small Group Facilitator, Musculoskeletal and Skin Diseases, 2011-present
- Medical Student Clinical Experiences, Rheumatology, 2010-present
- MSK Physical Exam Skills to 1st & 2nd year medical students, 2009-present
- Small Group Facilitator, Immunology in Health and Disease, 2010-present
- Rheumatology Course Curriculum for residents, 2013-present
- Muscle Examination Workshop, 2013-present
- Practice Management Conference, Rheumatology, 2013-present
- Musculoskeletal Ultrasound clinic one per month, 2012-present
- Rheumatology Ultrasound Workshop, 2011-present
- Resident rotation director, Outpatient Rheumatology, 2010-present
- Resident rotation director, Rheumatology Consults, 2010-present
- Resident & Fellow Clinical Rheumatology lectures, 2010-present
- Clinical Case Conference, Rheumatology, 2009-present
- Radiology conference, Rheumatology, 2009-present
- Rheumatology grand rounds, 2009-present
- Lecturer, American College of Rheumatology, "HyperCkemia", 2016
- Lecturer, American College of Rheumatology, "Rheumatology Fellow Mentorship Work – Intro to Research Funding outside NIH/Early Career Research Funding", 2016
- Lecturer, American College of Rheumatology, Workshop on Muscle Examination, 2016
- Lecturer, Annual Meeting, XIX PANLAR, "Hot Topics in Myositis – An Update", 2016
- Lecturer, Rheumatology Grant Rounds, Icahn School of Medicine at Mount Sinai, "Treatment Update on Myositis", 2016
- Lecturer, European League Against Rheumatism (EULAR), "Autoantibodies in Rheumatology", 2016
- Lecturer, New York State Rheumatology Association, "Treatment of Myopathie", 2016
- Lecturer, Rheumatology Grand Rounds University of Pittsburgh "DMARDS & Biologics, Part 1 & 2", 2015
- Lecturer, European Neuromuscular Centre, "Outcomes in Connective Tissue Disease Associated Interstitial Lung Disease", 2015
- Lecturer, Annual Conference, the Myositis Association, "Overlap Syndrome", 2015
- Lecturer, Meeting, Hong Kong Society of Rheumatology, "Biological Therapies in Myositis", 2015
- Lecturer, American College of Rheumatology, "How to Measure Myositis Response in Adult Dermatomyositis and Polymyositis", 2015
- Lecturer, Meet the Professor, American College of Rheumatology, "Meet the Professor: Issues in Diagnosis and Treatment of Myositis", 2015
- Mentoring, Medical Student Adi Wollstein, 2015-present
• Mentor, Resident Silvia Martinez Laverde, 2016-present
• Mentor, Fellow Emily Bruner, 2016-present
• Mentor, Fellow Laura Tasan, 2016-present

Alan Berg MD
• Lecturer, Family Practice Residents, St. Margaret’s and Shadyside Hospital, 2015-present

Partha Biswas PhD
• Lecturer, MS-1, Immunology and Human Disease, Course director: Dr. Robert Binder. 2015-present
• Lecturer, Immunology/Basic Autoimmunity Core didactic series, Division of Rheumatology and Clinical Immunology, UPMC, Director: Dr. Doug Lienesch, 2015-present
• Lecturer, Experimental Basis of Immunology, Course director: Dr. Binfeng Lu, 2016
• Lecturer, Comprehensive Immunology, Course director: Dr. Patrizia Fuschiotti, 2016
• Lecturer, Immunology in Health and Disease, Course directors: Drs. Christine Milcarek, Chet Oddis and Per Basse, 2016
• Lecturer, Course in Cellular Physiology of the Kidney, Course director: Drs. Arohan Subramanya and Gerard Apodaca, 2016
• PhD Thesis Committee Member, Jeremy Gale, PhD Candidate in Interdisciplinary Biomedical Graduate Program (Immunology) (advisor: Dr. Mark Schlomchik), University of Pittsburgh, 2014-present
• PhD Comprehensive Exam Committee Member, Patricia Castilla, PhD candidate in Medical Science Training Program (Immunology), University of Pittsburgh, 2016

Robyn Domsic MD MPH
• Facilitator, Physical Exam Skills to first- and second-year medical students, 2005-present
• Small Group Facilitator, Methods and Logic in Medicine, 2011-present
• Small Group Facilitator, Musculoskeletal and Skin Diseases, 2011-present
• Fellowship/Medical Student Mentoring, Brandi Stevens, 2015-present; Shannon Zalewski, 2015-present

Patrizia Fuschiotti PhD
• Course Director, Comprehensive Immunology, Graduate Students, 2016
• Lecturer, Comprehensive Immunology: Introduction to Immunology, 2016
• Lecturer, Comprehensive Immunology: CTL Effector Mechanisms, 2016
• Lecturer, Comprehensive Immunology: Immunopathology/Autoimmunity, 2016
• Lecturer, Immune Systems Health & Disease: Autoimmune Connective Tissue Disease: Systemic Sclerosis, 2016
• Lecturer, MS-1-MS-2: Small Groups: PBL, 2016

Sarah Gaffen PhD
• Invited Speaker, International Cytokine and Interferon Society Annual Meeting, Bamberg, Germany, 2015
• Invited Speaker, Aberdeen Fungal Group Reading Party Retreat, Scotland, UK, January, 2016
• Invited Speaker, American Society of Microbiology (ASM) Conference on Candida and Candidiasis, Session on Recognition and Host Resistance, Seattle WA, 2016
• Gordon Conference on Immunology of Fungal Infections, Chair of session on “Components of Innate Immunity to Fungi,” Galveston, TX, 2015
• Gordon Research Seminar on Immunology of Fungal Infections, Discussion Leader, Galveston TX, 2015
• Co-Chair, ICIS Guest Society Symposium, American Association of Immunologists annual meeting, New Orleans LA, 2015
• International Advisory Board, 3rd Annual Meeting of the International Cytokine and Interferon Society, Bamberg, Germany, 2015
• Chair, Block Symposium on “Molecular Regulation of Cytokine/Chemokine and Receptor Function,” New Orleans, LA, 2015
• International Advisory Board, 4th Annual Meeting of the International Cytokine & Interferon Society (ICIS), San Francisco, CA, 2016
• Plenary Session Chair on Immune Biology and Host Response, 12th ASM Meeting on Candida and Candidiasis, Seattle, WA, 2016
• Mentor, PhD candidate J. Agustin Cruz, 2013-present
• Mentor, PhD candidate Nilesh Amatya, 2014-present
• Mentor, PhD Candidate Felix Enam Yao Aggor, 2016-present
• Mentor, Graduate Student rotation, Felix Aggor, 2016
• Mentor, Postdoctoral Fellow Akash Verma, 2014-present
• Mentor, Postdoctoral Fellow Leticia Monin, 2015-present
• PhD Thesis Committee member Katie Harris, 2012-2015
• PhD Thesis Committee member Fernando Benavent, 2013-2016
• PhD Thesis Committee member Avraham Bayer, 2013-2016
• PhD Thesis Committee member Kritika Ramani, 2014-present
• PhD Thesis Committee member Qianxia (Sherry) Zhang, 2014-present
• PhD Thesis Committee member Stephanie Ander, 2016-present
• Postdoctoral/Medical Fellow Advisory Committees: Benjamin Matta PhD, 2012-present
• Postdoctoral/Medical Fellow Advisory Committees: Paschalis Vergidis MD, 2013-present
• Postdoctoral/Medical Fellow Advisory Committees: Pawan Kumar PhD, 2014-present
• Postdoctoral/Medical Fellow Advisory Committees: William Hawes PhD, 2014-present
• Postdoctoral/Medical Fellow Advisory Committees: Siamak Moghadam-Kia, 2014-present

David J. Helfrich MD
• Attending, Residency teaching at UPMC Mercy Hospital, 1988-present
• Lecturer, Provide Catholic Charities Free Health Care Center, 2006-present
• Attending, Ambulatory rheumatology rotation fellowship teaching, 2014-present

Yong Gil Hwang MD
• Preceptor, Introduction of Physical Exam Course, 2015-present
• Preceptor, Rheumatology Fellow in their Continuity Clinic, 2015-present

Robert Lafyatis MD
• Invited Lecture, 4th Systemic Sclerosis World Congress, Oral Abstract “Inhibition of Myeloid-Associated Gene Expression In Skin Biopsy Samples Of Systemic Sclerosis Patients Treated With Tocilizumab”, Lisbon, Portugal, 2016
• Chair, Keystone Symposium “Fibrosis: From Basic Mechanisms to Targeted Therapies”. Keystone, CO, 2016
Kimberly Liang MD
- Lecturer, Immunology in Health & Disease Course lecture for 1st-year medical students, University of Pittsburgh: “Vasculitis: Granulomatosis with Polyangiitis”, 2013-present
- Small group teacher/facilitator, 2nd-year Medical Student course: Musculoskeletal (and Skin) Course, University of Pittsburgh, 2013-present
- Facilitator, Physical Examination, first-year medical students, 2011-present
- Lecturer, Rheumatology Didactic Series lecture, University of Pittsburgh, “Vasculitis”, 2014-present
- Faculty Mentor for Rheumatology Fellows’ Grand Rounds and Clinical Case Conference presentations, 2010-present
- Problem-Based Learning Session facilitator, first-year medical student Immunology course, University of Pittsburgh, 2009-present
- Rheumatology Journal Club lecture, University of Pittsburgh, 2016
- Lecturer, Rheumatology Journal Club lecture, University of Pittsburgh: “Rosuvastatin-Induced Carotid Plaque Regression in Patients with Inflammatory Joint Diseases: The RORA-AS Study,” 2015
- Faculty Co-Mentor for Rheumatology fellow's research/scholarly project (“Temporal artery biopsies: clinicopathologic correlation at a single institution”), 2015-2016

Douglas Lienesch MD
- UPMC Rheumatology Fellowship Program Director, 2011-present
- Member, UPMC Health Plan Pharmacy and Therapeutics Committee, 2011-present
- Lecturer, Chairman’s Conference, 2007-present
- Attending/Teaching Rounds, Rheumatology Consultation Service, 2007-present
- Outpatient Preceptorship, Consultative Rheumatology Practice, 2007-present
- Lecture, MS1 Immunology, Spondyloarthritis Lecture, 2007-present
- Lecture, MS1 Musculoskeletal Exam Workshop, 2007-present
- Lecture, MS2 Rheumatology Workshop, 2007-present
- Lecturer, UPMC Presbyterian IM Residency, 2007-present
- Lecturer, Internal Medicine Conference Series, 2007-present
- Lecturer, UPMC Rheumatology Fellowship Didactics, 2007-present

Mandy McGeachy PhD.
- Division Representative, Department of Medicine PhD Community Committee, 2015-2016
- Member, Division of Rheumatology Lupus Center Search Committee, 2015-present
- Lecturer, Clinical Immunology (MD) Course, PBL Tutorial, 2013, 2015
- Lecturer, Immunology in Health Disease: Multiple Sclerosis Lecture (IBGRP Grant Program), 2014-2015
- Lecturer, CLRES Fundamentals of Bench Research, Approaches to Cell Imagining and Immunology: Developing and Using in Vivo Model Systems/genetics Approach to Immunology, 2015-2016.
- Mentor, Pediatric Rheumatology Fellow, Deepika Singh, 2014-2016
- Mentor, IBGRP Graduate Student, Gerard Hernandez-Mir, 2013-present
- Mentor, Post-Doctoral Fellow Associate, Saikat Majumber, 2016-present

Thomas A. Medsger Jr. MD
- Small Group Facilitator, MS2 Skin/Musculoskeletal Block Course, 2007-2015
Siamak Moghadam-Kia MD
- Lecturer, Skin and musculoskeletal disease workshop, University of Pittsburgh, 2015-present
- Lecturer, The Intro to Physical Examination Course, University of Pittsburgh, 2015-present
- Lecturer, Immunology in Health and Disease Problem-Based Learning, University of Pittsburgh, 2016-present
- Lecturer, Journal Club, Department of Rheumatology, University of Pittsburgh Medical Center, 2016
- Lecturer, Connective Tissue Disease Lecture Day. Department of Dermatology, University of Pittsburgh Medical Center, “Auto-antibodies in connective tissue disease.” 2016
- Lecturer, Chief of Medicine Conference. VA Pittsburgh University Drive Medical Center, “Statin myopathy”, 2016
- Fellow, Rheumatology Clinic at the VA Pittsburgh, 2015-present

Niveditha Mohan MBBS
- Member, Division of Rheumatology Education Committee, 2011-present
- Lecturer, two didactic lectures each year for fellows, 2003-present
- Preceptor, physical exam course for 1st- and second-year medical students, 2003-present
- Clinic preceptor for medical students, residents rotating through rheumatology, 2003-present
- Preceptor for fellows in community clinic and on the floors; in musculoskeletal ultrasound, organizer and instructor in annual interdepartmental (between rheumatology and PM&R) MSK USG workshop, 2010-present
- Preceptor of MSK USG procedure clinic for fellows, 2013-present

Larry W. Moreland MD
- Lecturer, MS 1, MS 2–Lecture, 2010-present
- Lecturer, Immunology in Health and Disease, lecture on RA, 1st-year students, 2010-present
- Lecturer, Immunology in Health and Disease, lecture on Immunotherapies in Autoimmune Disease, 1st-year students, 2010-present
- Lecturer, Rheumatology Didactic, Biologics, University of Pittsburgh, 2008-present
- Lecturer, Rheumatology Didactic, Rheumatoid Arthritis, University of Pittsburgh, 2009-present
- Co-Course Director, Department of Medicine, University of Pittsburgh, Update in Internal Medicine, 2013-present
- Invited Speaker, Department of Medicine, University of Pittsburgh, Medical Grand Rounds, 2015
- Invited Speaker, Pennsylvania Rheumatology Society, 2015
- Mentor, University of Pittsburgh Assistant Professor of Medicine Kim Liang MD, 2010-present
- Mentor, University of Pittsburgh Assistant Professor of Medicine Ghaith Noaiseh MD, 2012-present
- Mentor, University of Pittsburgh Assistant Professor of Medicine Young Gil Hwang MD, 2013-present
- Mentor, Medical Student Tyler Sevco, 2014-present

Ghaith Noaiseh MD
- Attending, Rheumatology inpatient consult service, supervising UPMC Rheumatology Fellows, 2012-present
- Facilitator, MSK examination workshop for Medical Student, University of Pittsburgh, 2012-present
- Lecturer, Summer Didactic Series: Sjogren’s syndrome, University of Pittsburgh Medical Center, Division of Rheumatology & Clinical Immunology, 2013-present
- Lecturer, Division of Rheumatology Grand Rounds, “Sjogren’s Syndrome”, 2013-present
- Lecturer, Immunology in Health and Disease, “Sjogren’s Syndrome”, 1st-year students, 2014-present

Chester Oddis MD
- Associate Director, Fellowship Program, 1996-2002, 2011-present
- Lecturer, MS 1 – Lectures Immunology in Health and Disease; 150 medical students; four lectures (Introduction to the Connective Tissue Diseases; Idiopathic Inflammatory Myopathy; Glucocorticoids and NSAIDs; Crystalline Arthropathy); 2005-present
- Course Co-Director, Skin and Musculoskeletal Diseases for MS-2, 2011-present
Course Co-Director, Immunology in Health and Disease for MS-1, 2014-present
Member, Division of Rheumatology Education Committee, 2006-present
Member, Academic Search Committee, Lupus Center Director, 2014-present
Outpatient Rheumatology clinic preceptor, 1987-present
Mentor, Faculty Advisor, University of Pittsburgh School of Medicine, 1996-present
Lecturer, First International Conference on Myositis (Stockholm, Sweden), Update on Pharmacologic Treatment in Myositis, 2015
Lecturer, European Neuromuscular Center (ENMC) Conference Myositis Clinical Trial Protocols and their Outcomes, Heemskerk, Netherlands, September 18, 2015
Lecturer, Harvard Medical School – Advances in Rheumatology Boston, MA, 2015
  - Autoantibodies in Myositis
  - Treatment of Myositis
Lecturer, American College of Rheumatology Annual Scientific Meeting, The Antisynthetase Syndrome, San Francisco, CA, 2015
Lecturer, Harvard Rheumatology Grand Rounds, The Assessment and Management of Myositis, Boston, MA, 2016

Thaddeus Osial MD
- Member, Executive Committee, University of Pittsburgh Arthritis Institute, 1997-present
- Chairman, Credentials Committee, UPMC St. Margaret Hospital, 2002-present
- Member, Executive Committee, UPMC St. Margaret Hospital, 1990-present
- Member, Physician Health Committee, UPMC St. Margaret Hospital, 2008-present
- Member, Advisory Board, Arthritis Foundation of Western PA, 1988-present
- Outpatient Rheumatology Education (UPMC St. Margaret Hospital Family Practice Residency, supporting Dr. Alan Berg, who is the primary educator)
- Lecture, Update in Internal Medicine, “Common Regional Musculoskeletal Problems”, 2015
- Lecture, Grand Professor Rounds, UPMC St. Margaret Hospital, "Vasculitis", 2015

John Stewart Richards MD
- Lecturer, MSI and II Intro Physical Exam and Basic Musculoskeletal Exams, 2015
- Lecturer, MSII Skin and Musculoskeletal Diseases, 2015
- Lecturer, Annual Didactic, University of Pittsburgh Rheumatology Fellows, 2015
- Lecturer, University of Pittsburgh Fetal and Maternal Health Fellows, 2015
- Lecturer, Rheumatology Teaching Rounds, 2015-present
- Lecturer, Chronic Renal Disease and Rheumatoid Arthritis, 7th Annual Caribbean Association for Rheumatology Meeting, Port-of-Spain, Trinidad, 2016
- Gout: 21st Century Management of an Ancient Disease, 7th Annual Caribbean Association for Rheumatology Meeting, Port-of-Spain, Trinidad, 2016

Terence Starz MD
- Lecturer, UPMC Shadyside medical resident teaching, 2014-2016
- Course Director, Updates in Internal Medicine 2014, 2015, 2016
- Occupational Therapy, University of Pittsburgh, student rheumatology lectures, 2014-2016
- Lecturer, UPMC Shadyside Grand Rounds and Update in Internal Medicine, “Placebos: What are they and what do they do”, 2016
- Lecturer, UPMC Shadyside Grand Rounds and Update in Internal Medicine, "Polymyalgia rheumatic and giant cell arteritis", 2016
- Lecturer, UPMC Shadyside Grand Rounds and Update in Internal Medicine, Non-steroidal anti-inflammatory drugs, 2016
Fellowship Program

<table>
<thead>
<tr>
<th>Current Fellow</th>
<th>Medical School</th>
<th>Residency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aye</td>
<td>Myo-Pale' American University of the Caribbean</td>
<td>Staten Island University Hospital</td>
</tr>
<tr>
<td>Birru-Talabi</td>
<td>Mehret University of Pittsburgh</td>
<td>UPMC</td>
</tr>
<tr>
<td>Brunner</td>
<td>Emily Philadelphia College of Osteopathic Medicine</td>
<td>Geisinger Medical Center, Danville, PA</td>
</tr>
<tr>
<td>Charlton</td>
<td>Devon Trinity School of Medicine, Saint Vincent</td>
<td>Danbury Hospital, Danbury, CT</td>
</tr>
<tr>
<td>Dhillon</td>
<td>Namrata Northeast Ohio Medical University</td>
<td>Riverside Methodist Hospital, Columbus, OH</td>
</tr>
<tr>
<td>Tilstra</td>
<td>Jeremy Univ. of Pittsburgh School of Medicine</td>
<td>UPMC</td>
</tr>
<tr>
<td>Zarbalian</td>
<td>Yousef Washington University in St. Louis School</td>
<td>University of Maryland Medical Center</td>
</tr>
</tbody>
</table>

Departing Fellow | Current Position
-----------------|------------------|
Birru Talabi     | Mehret UPMC      |
Dhillon          | Namrata UPMC     |
Tilstra          | Jeremy UPMC      |
Zarbalian        | Yousef Private Practice, Virginia                 |

Fellow Abstracts


Zarbalian Y, Liang KP, Hamilton RL, Wang L, Winger D. Perivascular inflammation in temporal artery biopsies that are negative for arteritis: incidental or harbinger? American College of Rheumatology Annual Meeting November 11-16, 2016 (Submitted)

Fellow Presentations

Brunner E. You have better odds of winning the lottery: atypical etiology of pulmonary hemorrhage and glomerulonephritis in an 8-year-old boy. Poster presentation, Pennsylvania Rheumatology Society Scientific Meeting, September 25, 2015

Aye, MP. IGG4-related disease in primary Sjogren’s syndrome. Poster presentation, Pennsylvania Rheumatology Society Scientific Meeting, September 25, 2015


Tilstra JS, Slomchik M.  Suppression of IL-1 Signaling suppresses dermatitis in a murine model of systemic lupus erythematosus.  UPMC Research Day, Spring 2016


Fellow Publications


The Division's faculty members assume a consultative and tertiary care role, as well as provide ongoing care to patients with all types of rheumatic diseases. There are several subspecialists who serve as regional and national consultants for patients in the following areas:

### Rheumatoid Arthritis

The UPMC Rheumatoid Arthritis Center is devoted to the management of rheumatoid arthritis and related disorders. The physicians at the center use a multidisciplinary approach to diagnose and manage patients with rheumatoid arthritis. The center also participates in clinical and research trials to offer patients innovative therapies. The director of the UPMC Rheumatoid Arthritis Center is Larry Moreland MD. Other leaders in the Center include Yong Gil Hwang MD and Mandy McGeachy PhD.

The Rheumatoid Arthritis Comparative Effectiveness Research (RACER) registry provides a framework for the center for longitudinal follow-up of patients with rheumatoid arthritis.

Another NIH-sponsored initiative includes the Treatments Against RA and Effect on FDG PET-CT (TARGET) Trial, which examines the effect of RA disease modifying drugs (DMARDs) on vascular inflammation and the Strategy to Prevent the Onset of Clinically-Apparent Rheumatoid Arthritis (StopRA), which uses blood tests to identify healthy individuals who may be at high risk for developing rheumatoid arthritis (RA).
Lupus

The UPMC Lupus Center of Excellence is devoted to the management of systemic lupus and related disorders. The center's physicians use a multidisciplinary approach to diagnose and manage patients with these diseases. The center, which also participates in clinical trials to offer patients innovative therapies, was recently moved to a new location in the Medical Arts Building on the UPMC/University of Pittsburgh's campus. Its director is Thomas A. Medsger MD. Other faculty members include Kimberly Liang MD, Ghaith Noaiseh MD, Yong Gil Hwang MD and Larry Moreland MD (co-Medical Director) and all are active in clinical and research activities. Each of these doctors provide comprehensive evaluation and care. In addition, the UPMC Lupus Center of Excellence conducts clinical research and has a number of NIH-funded and industry-sponsored studies actively enrolling patients.

Myositis

The goal of the Myositis Center is to provide state-of-the-art diagnosis and treatment for all aspects of immune-mediated muscle disorders and related diseases—and to lead the way in clinical and basic science research in the inflammatory myopathies. Chester V. Oddis MD and Rohit Aggarwal MD MSc currently see patients from all over the country who are referred for evaluation and treatment of rare disorders related to myositis.

Vasculitis

Larry Moreland MD is the director of the Vasculitis Center. Other rheumatology physicians at the Vasculitis Center include Kimberly Liang MD, Douglas Lienesch MD, and Niveditha Mohan MD. The center focuses on providing the best possible care to patients, education and support for families, and access to new treatment options for those suffering from vasculitis, a disease characterized by the inflammation of blood vessels. The University of Pittsburgh is one of 11 academic sites involved with the NIH-funded Vasculitis Clinical Research Consortium (VCRC).

Scleroderma

The Scleroderma Center supports clinical and basic science research, patient care, fellow training, and patient education regarding systemic sclerosis, localized scleroderma, related fibrosing conditions, and Raynaud phenomenon. Robert Lafyatis MD leads the Scleroderma Center. Patients from the United States and foreign countries are referred to the center for evaluation and multidisciplinary treatment of systemic sclerosis and other related disorders. Clinic patients are evaluated by Thomas A. Medsger Jr. MD and Robyn T. Domsic MD MPH. Patrizia Fuschiotti PhD, Assistant Professor, conducts basic science research in collaboration with the scleroderma faculty.

Telemedicine

Rohit Aggarwal MD MSc and Christine Peoples MD provide tele-rheumatology services outside the greater Pittsburgh area at the following locations: UPMC Bedford, UPMC Northwest and UPMC Hermitage. Through videoconferencing, our physicians identify rheumatologic diseases early, manage chronic rheumatologic diseases, and provide follow-up care as needed. As of May 31, 2016, Dr. Christine Peoples was identified as the top provider of Telehealth services, completing 12% of all consults across the three Telehealth locations. Moreover, Tele-rheumatology is currently the second-busiest specialty service, accounting for nearly 20% of all UPMC teleconsult visits. In FY16, our clinicians performed over 466 telemedicine outpatient visits at UPMC Northwest, UPMC Hermitage, and UPMC Bedford. Since its inception, the program has grown more than 4-fold, serving patients who may not otherwise be seen by a rheumatologist.
Clinic Locations

<table>
<thead>
<tr>
<th>Location</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPMC Arthritis and Autoimmunity Center at UPMC Mercy</td>
<td>UPMC Mercy, 1400 Locust Street, Suite 2100, Pittsburgh, PA 15219, USA</td>
</tr>
<tr>
<td>Arthritis and Internal Medicine - UPMC</td>
<td>Shadyside Place, 580 South Alken Avenue, Pittsburgh, PA 15232, USA</td>
</tr>
<tr>
<td>Margolis Rheumatology - UPMC</td>
<td>Heinz 57 Center, 339 Sixth Avenue, 5th Floor, Pittsburgh, PA 15222, USA</td>
</tr>
<tr>
<td>UPMC Arthritis and Autoimmunity Center</td>
<td>Falk Medical Building, 3601 Fifth Avenue, Suite 2B, Pittsburgh, PA 15213, USA</td>
</tr>
<tr>
<td>UPMC Rheumatology Monroeville</td>
<td>UPMC Monroeville Oxford Drive, 600 Oxford Drive, Suite 210, Monroeville, PA 15146, USA</td>
</tr>
<tr>
<td>UPMC Bethel Park Rheumatology</td>
<td>2000 Oxford Drive, Suite 680, Bethel Park, PA 15102, USA</td>
</tr>
<tr>
<td>UPMC Arthritis and Autoimmunity Center - Wexford</td>
<td>117 VIP Drive, Suite 120, Wexford, PA 15090, USA</td>
</tr>
<tr>
<td>Margolis Rheumatology - UPMC St. Margaret</td>
<td>Medical Arts Building, 200 Delafield Drive, Suite 4040, Pittsburgh, PA 15215 USA</td>
</tr>
</tbody>
</table>

http://www.dom.pitt.edu/rheum
CLINICAL QUALITY IMPROVEMENT INITIATIVES

The Division’s focus is on quality, as evidenced by its work with rheumatic disease patients on parenteral biologic modifier therapies and other immunosuppressive medications. Additionally, our physician-researchers have successfully developed methods of improving patient education and safety monitoring for those patients requiring immunosuppressive medications. Our practices consistently surpass quality standards set for the care of such common rheumatoid diseases as osteoarthritis, rheumatoid arthritis, and osteoporosis. We expanded our immunization initiative to include herpes zoster, influenza, and hepatitis B as well as pneumococcal vaccination, influenza and herpes zoster.
FACULTY

Faculty in Core Divisions
Fiscal Year 2014-2016

<table>
<thead>
<tr>
<th>Division</th>
<th>FY 2003 (Base Year)</th>
<th>FY 2014</th>
<th>FY 2015</th>
<th>FY 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rheumatology</td>
<td>12</td>
<td>33</td>
<td>33</td>
<td>31</td>
</tr>
</tbody>
</table>

Note: Includes University of Pittsburgh full-time faculty and volunteer faculty who have a UPP appointment and excludes research associates, adjunct faculty and emeritus faculty.

Current Rheumatology and Clinical Immunology Faculty

Full-Time Faculty

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Degree</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggarwal</td>
<td>Rohit</td>
<td>MD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Biswas</td>
<td>Partha</td>
<td>PhD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Chew</td>
<td>Douglas</td>
<td>BS</td>
<td>Instructor in Medicine</td>
</tr>
<tr>
<td>Domsic</td>
<td>Robyn</td>
<td>MD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Fuschiotti</td>
<td>Patrizia</td>
<td>PhD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Gaffen</td>
<td>Sarah</td>
<td>PhD</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Garg</td>
<td>Abhishek</td>
<td>PhD</td>
<td>Research Associate</td>
</tr>
<tr>
<td>Hwang</td>
<td>Yong</td>
<td>MD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Kwoh</td>
<td>C. Kent</td>
<td>MD</td>
<td>Adjunct Professor of Medicine</td>
</tr>
<tr>
<td>Liang</td>
<td>Kimberly</td>
<td>MD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>McGeachy</td>
<td>Mandy</td>
<td>PhD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Medsger</td>
<td>Thomas</td>
<td>MD</td>
<td>Emeritus Professor</td>
</tr>
<tr>
<td>Moreland</td>
<td>Larry</td>
<td>MD</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Noaiseh</td>
<td>Ghaith</td>
<td>MD</td>
<td>Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Odds</td>
<td>Chester</td>
<td>MD</td>
<td>Professor of Medicine</td>
</tr>
<tr>
<td>Steen</td>
<td>Virginia</td>
<td>MD</td>
<td>Adjunct Professor of Medicine</td>
</tr>
<tr>
<td>Vina</td>
<td>Ernest</td>
<td>MD</td>
<td>Assistant Professor of Medicine</td>
</tr>
</tbody>
</table>

Affiliated Faculty with UPP Appointments

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Degree</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achkar</td>
<td>Antonio</td>
<td>A. MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Alayli</td>
<td>Chassan</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Amezaga Urruela</td>
<td>Matxalen</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Bass</td>
<td>Noah</td>
<td>S. MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Berg</td>
<td>Alan</td>
<td>M. MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Chetlin</td>
<td>Sherwood</td>
<td>M. MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Co</td>
<td>Deborah</td>
<td>J. MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>DeLo</td>
<td>Daniel</td>
<td>L. MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Gold</td>
<td>Kenneth</td>
<td>N. MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Helfrich</td>
<td>David</td>
<td>J. MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Lienesch</td>
<td>Douglas</td>
<td>W. MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Moghadam-Kia</td>
<td>Siamak</td>
<td>MD</td>
<td>Clinical Instructor in Medicine</td>
</tr>
<tr>
<td>Mohan</td>
<td>Niveditha</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Osial, Jr</td>
<td>Thaddeus</td>
<td>A. MD</td>
<td>Clinical Associate Professor of Medicine</td>
</tr>
<tr>
<td>Peoples</td>
<td>Christine</td>
<td>MD</td>
<td>Clinical Assistant Professor of Medicine</td>
</tr>
<tr>
<td>Last Name</td>
<td>First Name</td>
<td>MI</td>
<td>Degree</td>
</tr>
<tr>
<td>-----------</td>
<td>------------</td>
<td>----</td>
<td>--------</td>
</tr>
<tr>
<td>Fuschiotti</td>
<td>Patrizia</td>
<td></td>
<td>PhD</td>
</tr>
<tr>
<td>Lafyatis</td>
<td>Robert</td>
<td>A.</td>
<td>MD</td>
</tr>
<tr>
<td>Richards</td>
<td>John</td>
<td>S.</td>
<td>MD</td>
</tr>
</tbody>
</table>
## POST DOCS

### Current Post Docs in FY 2015-2016

<table>
<thead>
<tr>
<th>Employee Last Name</th>
<th>Employee First Name</th>
<th>Degree Code</th>
<th>Current Title</th>
<th>Summary of activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tilstra</td>
<td>Jeremy</td>
<td>MD/PhD</td>
<td>Postdoctoral Scholar</td>
<td>Dr. Tilstra’s studies are focused on innate immune signaling pathways and their relevance to lupus pathogenesis.</td>
</tr>
<tr>
<td>Monin</td>
<td>Leticia</td>
<td>PhD</td>
<td>International Postdoctoral Associate</td>
<td>Dr. Monin’s project is related to IL-17 signal transduction in mouse models of autoimmunity, with an emphasis on psoriasis and the role of MCPIP1.</td>
</tr>
<tr>
<td>Simpson-Abelson</td>
<td>Michelle</td>
<td>PhD</td>
<td>Postdoctoral Scholar</td>
<td>Dr. Simpson-Abelson is studying the regulation of C/EBP beta by IL-17 to determine the downstream signaling effects.</td>
</tr>
<tr>
<td>Whibley</td>
<td>Natasha</td>
<td>PhD</td>
<td>International Postdoctoral Associate</td>
<td>Dr. Whibley is studying the role of anti-IL-17 therapy in promoting opportunistic fungal infections.</td>
</tr>
<tr>
<td>Verma</td>
<td>Akash</td>
<td>PhD</td>
<td>International Postdoctoral Scholar</td>
<td>Dr. Verma is analyzing cellular requirements for IL-17-mediated immunity to fungi.</td>
</tr>
<tr>
<td>Majumder</td>
<td>Saikat</td>
<td>PhD</td>
<td>International Postdoctoral Associate</td>
<td>Dr. Majumder is working on the study of the role of integrins in autoimmune inflammation.</td>
</tr>
<tr>
<td>Jawale</td>
<td>Chetan</td>
<td>PhD</td>
<td>International Postdoctoral Associate</td>
<td>Dr. Jawale is characterizing and isolating Th17 cells from human blood and synovial fluid and using in vivo mouse models to study the role of Th17 cells in autoimmune inflammation.</td>
</tr>
</tbody>
</table>

### Terminated Post Docs–Fiscal Year 2015-2016

<table>
<thead>
<tr>
<th>Employee Last Name</th>
<th>Employee First Name</th>
<th>Degree Code</th>
<th>Current Title</th>
<th>Summary of activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singh</td>
<td>Deepika</td>
<td>MD</td>
<td>Postdoctoral fellow</td>
<td>Dr. Singh is studying Th17/TH cells as markers of therapy response in Rheumatoid Arthritis.</td>
</tr>
</tbody>
</table>
PUBLICATIONS

High Impact Publications


Interleukin-23 (IL-23) is required for inflammatory Th17 cell function in experimental autoimmune encephalomyelitis (EAE), and IL-23 blockade reduces the number of effector Th17 cells in the CNS. We report that pro-inflammatory Th17 cells express high integrin β₃ that is IL-23 dependent. Integrin β₃ was not upregulated on all activated T cells; rather, integrin β₃ was upregulated along with its functional partner integrin α₃ on effector Th17 cells and “ex-Th17” cells, and α₃β₃hi RORγt+ cells expanded during EAE. Integrin α₃β₃ inhibitors ameliorated clinical signs of EAE, and integrin β₃ deficiency on CD4+ T cells alone was sufficient to block EAE induction. Furthermore, integrin-β₃-deficient Th17 cells, but not Th1 cells, were impaired in their ability to induce EAE. Integrin β₃+ T cells induced smaller demyelinated lesions and showed reduced spread and accumulation within the CNS, corresponding with impaired extracellular-matrix-mediated migration. Hence, integrin β₃ is required for Th17 cell-mediated autoimmune CNS inflammation.


Interleukin-17 (IL-17) induces pathology in autoimmunity and infections; therefore, constraint of this pathway is an essential component of its regulation. We demonstrate that the signaling intermediate MCPIP1 (also termed Regnase-1, encoded by Zc3h12a) is a feedback inhibitor of IL-17 receptor signal transduction. MCPIP1 knockdown enhanced IL-17-mediated signaling, requiring MCPIP1’s endoribonuclease but not deubiquitinase domain. MCPIP1 haploinsufficient mice showed enhanced resistance to disseminated Candida albicans infection, which was reversed in an Il17ra-/- background. Conversely, IL-17-dependent pathology in Zc3h12a+/- mice was exacerbated in both EAE and pulmonary inflammation. MCPIP1 degraded Il6 mRNA directly but only modestly downregulated the IL-6 promoter. However, MCPIP1 strongly inhibited the Lcn2 promoter by regulating the mRNA stability of Nfkbia, encoding the Ikβζ transcription factor. Unexpectedly, MCPIP1 degraded Il17r and Il17rc mRNA, independently of the 3' UTR. The cumulative impact of MCPIP1 on IL-6, Ikβζ, and possibly IL-17R subunits results in a biologically relevant inhibition of IL-17 signaling.


Department of Medicine  http://www.dom.pitt.edu/rheum


Function in Early Rheumatoid Arthritis Patients Treated with Methotrexate Monotherapy or Combination Therapy in the Treatment of Early Aggressive Rheumatoid Arthritis (TEAR) Trial. Arth Rheum Epub 2016 Aug 2.


Conti HR, Whibley N, Coleman BM, Garg AV, Jaycox JR, Gaffen SL. Signaling through IL-17C/IL-17RE is dispensable for immunity to systemic, oral and dermal candidiasis. PLoS One. 2015 Apr 7;10(4):e0122807.


Richards JS, Dowell SM, Quinones ME, Kerr GS. How to use biologic agents in patients with rheumatoid arthritis who have comorbid disease. BMJ. 2015;351:h3658.


Starz T and Young B. The rheumatology nurse: the time is now to expand the nurse’s role. The Rheumatologist 2016;10:19-20.


The Vascular Medicine Institute’s (VMI) vision is to harness interdisciplinary teams of researchers to expand our understanding of the control of blood flow to organ systems and the development of novel therapies for diseases such as pulmonary hypertension, sickle cell vasculopathy, atherosclerosis, hypertension, and heart disease.

VMI has four goals as it pursues its mission and vision:

- Determine the molecular mechanisms underlying clinically important biomedical problems of hemostasis, thrombosis, transfusion medicine, and vascular biology.
- Develop novel, rationally designed therapies targeting diseases of hemostasis, thrombosis, transfusion medicine, and vascular biology to improve the quality of life for patients affected by related disorders.
- Foster the development of a multidisciplinary training environment for graduate and medical students, residents, and clinical and postdoctoral fellows, with an emphasis on hemostasis, thrombosis, transfusion medicine, and vascular biology.
- Enhance the reputation and recognition of Institute for Transfusion Medicine (ITxM) and Hemophilia Center of Western Pennsylvania (HCWP) regionally and nationally as active participants in laboratory-based basic and translational research.

VMI’s strategic goals for FY17 include:

- Continue to nurture and facilitate relationships of scientific leaders bridging VMI and HVI research groups
- Continue to develop the Center for Experimental Hematology and Global Health (with Dr. Solomon F. Ofori-Acquah as Director)
- Develop the VMI/ITxM Sickle Cell Center for Excellence (with Dr. Gregory Kato as Director); work with the DOM and ITxM/HCWP to develop a comprehensive heme center and medical home
- Move comprehensive hematology inpatient care to Magee Hospital to focus hematology care in Oakland, close to VMI research programs
- Maintain the high training standards of the Pulmonary Vascular Translational T32 Program in the VMI. We currently have four fellows appointed, of which three received individual NIH F32 funding on their first submission in 2015-2016 academic year
- Competitively renew the Pulmonary Vascular Translational T32 Program in the VMI—application was submitted in January 2016 and our score was a perfect 10, securing renewal and program expansion for the future
- Continue recruiting high quality postdocs, fellows, and students for training in hemostasis, vascular biology, and blood-related research. Enhance post-doctoral program and mentoring, using pathways developed in T32
- Continue promoting the established cores in NO metabolomics, ROS detection, flow cytometry, animal phenotyping, small animal hemodynamics, cell processing and hematopoietic progenitor and microvascular physiology and partnering with allied and translational centers in vascular clinical and translational research,
translational and international hematology, metabolism and mitochondrial medicine, ultrasound molecular imaging and therapeutics, and pulmonary hypertension research

- Utilize new mouse red cell hemolysis GWAS program
- Continue REDSIII collaborations on red cell donor genetics study
- Continue robust research in hemostasis, vascular and platelet biology, red cell and transfusion medicine, and mechanisms of vascular disease
- Promote collaborative hemostasis and vascular science around the institution via conferences, VMI grants and membership, and collaborative research
- Establish research and development partnerships with industry for translational hemostasis and vascular biology – current portfolio includes Gilead Sciences, Inc., Bayer Corporation, RiMed Foundation, and Aires Pharmaceuticals
- Continue to secure R01 funding for young VMI investigators
- Begin second five-year funding period of translational program project grant on pulmonary vascular disease. Funding will support the translation of promising drugs developed in the first five years of funding into human clinical trials with an emphasis on leveraging the patient microbiome for maximum therapeutic benefit. The application received a favorable score and we are currently awaiting the final Notice of Grant Award.
- Attract new investigators to the VMI's areas of research in hemostasis through the P3HVB awards
- Expand HHT (Hereditary Hemorrhagic Telangiectasia) Center of Excellence, under the research leadership of Beth Roman PhD
- Maximize collaborations among new VMI Cardiology recruits in the newly constructed laboratory and office space on the 17th floor of the Biomedical Science Tower and facilitate relationships with already established VMI faculty
RESEARCH

This year’s efforts to recruit Cardiology/VMI research faculty members resulted in Drs. Cynthia St. Hilaire, Stephen Chan, Partha Dutta, Dennis Bruemmer, Imad Al-Ghouleh, and Jared Magnani joining the University in July, September, October, January, March, and May, respectively. Dr. Magnani’s office is located in the Kaufmann Building where he is establishing the Center for Sleep and Cardiovascular Outcomes. Drs. St. Hilaire, Chan, Dutta, Bruemmer, and Al-Ghouleh have opened labs on the newly renovated 17th floor of the Biomedical Science Tower. Diane Margaria has been hired to serve as their administrative assistant.

VMI faculty authored at least 72 peer-reviewed publications in the past year, and contributed to a substantial increase in grant funding. A number of publications and grants are co-authored by other members of the VMI, highlighting the Institute’s effectiveness at creating a productive, collaborative environment. The robust research agenda and density of experts in vascular biology in Pittsburgh is a prominent strength of the VMI. It provides the Institute with a considerable opportunity to capitalize on the environment and local experts in a wide range of affiliated research.

In FY16, we continued our mission of attracting investigators who are new to the general areas of hemostasis and vascular biology by awarding eight new and three renewal grants from the Pilot Project Program in Hemostasis and Vascular Biology (P3HVB). The P3HVB is a competitive program intended to encourage investigators to focus on transfusion medicine, transfusion-related lung injury, hemostasis and platelet biology, hemophilia and integrative vascular biology with emphasis on the role of red cells, platelets, and hemostatic factors.

VMI/HVI Innovator Awards encourage and facilitate collaborations between the two institutes’ faculty members. The projects represent cutting-edge science and highlight how the synergy between VMI and HVI faculty will open new and exciting areas of research. Awardees for FY17 funding include:

- Cynthia St. Hilaire/Thomas Gleason: Role of Mechanical Stress In Ectonucleotidase Activity and Adenosine Receptor Signaling in Calcific Aortic Valve Disease
- Iain Scott/Charlie McTiernan: Adropin: A Potential Treatment for Mitochondrial Metabolic Dysfunction in Diabetic Cardiomyopathy
- John Pacella/François Yu/Patrick Pagano: Sonoreperfusion for Microvascular Obstruction: Effects of Nox Inhibition
- Dennis Bruemmer/Marc Simon: Endothelial Cell Telomerase Function in Pulmonary Arterial Hypertension

Research awards and other activities included:

- Margaret Bennewitz was awarded an F32 from the NHLBI entitled “Pulmonary Arteriole Micro-Embolism by Platelet Neutrophil Aggregates Promotes Sickle Cell Disease Acute Chest Syndrome”.

Department of Medicine  http://www.vmi.pitt.edu
• Mark Gladwin was awarded renewal of a P01 from the NHLBI entitled “Vascular Subphenotypes of Lung Disease”, and a research award from the Institute for Transfusion Medicine entitled “Genetic Basis of Differential Blood Donor RBC Storage Capacity/Polymorphisms that Improve Hemoglobin and/or Storage Iron in High Intensity Blood Donors”.
• Elena Goncharova was awarded an R01 entitled “HIPPO Signaling in Pulmonary Arterial Hypertension”.
• Chibueze Ihunnah was awarded an F32 from the NHLBI entitled “Pharmacologic Induction of Cytoprotection in Sickle Cell Disease”.
• Jeff Isenberg was named a co-investigator on an R01 at Michigan State University entitled “Regulators of Ischemic Fracture Healing”.
• Greg Kato was named a co-investigator on an R01 at University of Minnesota Medical Center entitled “SCN5A Gene and Prolonged QT in Sickle Cell Disease”.
• Johannes Kutten was awarded an F31 from the NIBIB entitled “TSP1-CD47 Signaling Limits Restoration of Decellularized and Synthetic Tracheal Transplants”.
• Ana Mora was awarded an R01 from the NHLBI entitled “Signaling Mechanisms by Which Mitochondria Regulates Fibrosis in the Lung”, and she received a research award from UPMC to study “The Role of PINK1 in mtDNA Integrity and Tumorigenesis”.
• Enrico Novelli was awarded an R01 from the NHLBI and funding from the American Society of Hematology for a study entitled “Neuro-Vascular Determinants of Cognition in Adults with Sickle Cell Disease”.
• Solomon Ofori-Acquah was awarded an R25 from the NHLBI entitled “Pittsburgh Intensive Training in Hematology Research (PITHR)” and a research award from Prolong Pharmaceuticals to conduct a pilot study of “Preclinical Efficacy of Sanguinate in Acute Chest Syndrome”.
• Sruthi Shiva was named a co-investigator on an R01 at Emory University entitled “Phase 3 RCT of Arginine Therapy for Pediatric SCD Pain”, and she received a research award entitled “Hemolysis Induced Platelet Activation Requires Mitochondrial Signaling” from the American Heart Association.
• Adam Straub received a research award entitled “Cyb5R3 and Vascular Function” from the American Heart Association.
• Prithu Sundd received an R01 from the NHLBI entitled “Pulmonary Arteriole Occlusion by Platelet-Neutrophil Micro-Emboli in Acute Chest Syndrome”.
• The Comprehensive Pulmonary Hypertension Program is a joint program of the UPMC Heart and Vascular Institute and the Pitt Division of Pulmonary, Allergy and Critical Care Medicine. Nationally accredited by the Pulmonary Hypertension Association, it offers state-of-the-art diagnostics, a full range of therapy, and the opportunity for patients to participate in cutting-edge clinical research aimed at improving diagnosis and treatment methods. The center comprises more than 60 researchers, physicians, nurses, pharmacists, and clinical practitioners committed to creating new therapies to help reverse, prevent and cure pulmonary hypertension. VMI physician-scientist Stephen Y. Chan, MD, PhD recently completed a groundbreaking study showing that hardening of lung vessels is an early event in pulmonary hypertension that can be modified by two existing drug compounds. Chan’s research team is working to repurpose those drugs for the treatment of pulmonary hypertension patients. This represents a significant milestone in the quest to cure pulmonary hypertension.
Faculty Research Interests

Marta Bueno PhD
Idiopathic Pulmonary Fibrosis (IPF) is a fatal and progressive lung disease, characterized by progressive scarring of the lung. IPF prevalence increases dramatically with age, and aging is a known risk factor as well. However, there is limited understanding in the mechanisms involved in the increased vulnerability of the aging lung to develop lung fibrosis. The Bueno lab’s published findings were pioneered to identify alterations in mitochondrial homeostasis in the aging type alveolar epithelial cell (AECII) as a critical component of the pathogenesis of IPF. Currently, the studies are extending to other diseases characterized by abnormal tissue repair and exaggerated remodeling, including pulmonary hypertension (PH) and scleroderma.

Paola Corti PhD
New members of the globin family have been discovered recently, and their regulation and function are unknown. Dr. Corti’s research interest is to clarify the function of these globins in vivo and to investigate their possible role in nitrite reduction. For this purpose, she uses the two different zebrafish models; the embryonic development and the heart regeneration. Dr. Corti’s lab has found that Globin X, which is of ancient origin, is a very fast nitrite reductase, and that it is detectable in the fish blood and inhibits coagulation in vitro in presence of nitrite. Cytoglobin 1 and 2 are expressed in the adult zebrafish heart, and their expression is altered during the regeneration process. In order to understand the globins’ function in vivo, Dr. Corti’s research team is generating knockout zebrafish for each one of the globins using the CRISPr-Cas9 technology for gene editing.

Elena Goncharova PhD
Dr. Goncharova’s research interests have focused on the molecular and cellular mechanisms regulating metabolism, proliferation, motility and survival of smooth muscle cells as it relates to the pathogenesis of pulmonary arterial hypertension (PAH) and pulmonary lymphangioleiomyomatosis (LAM). Her current work specifically focuses on the roles of mammalian target of rapamycin (mTOR) and HIPPO signaling networks as a master-regulators of VSM remodeling in PAH. Dr. Goncharova’s lab uses human-derived tissues and cells, genetically modified mice and rodent animal models of PH to dissect new signaling events driving PAH pathogenesis, identify, and test new molecular targets. Her lab also runs VMI Cell Processing Core (isolates, characterizes and biobanks pulmonary vascular cells from subjects with PAH and donor lungs) and Animal Hypoxic Core (provides the platform and technical support for hypoxia-based modeling of PH in rodents).

Jian Hu MD
Dr. Hu’s primary research interest is the underline pathways for the nitrite’s treatment effect on right heart with constant overload. His study has shown that nitrite can preserve the right heart contractility function and prevent remodeling, with AKT protein playing an important role in the regulation. More pathways involved in the regulation effect need to be understood to enable further studies of molecular targets of drugs to become possible. This may lead to new preclinical medication intervention to protect the right heart with pulmonary hypertension. Dr. Hu is also interested in developing animal models related to cardiopulmonary research, including pulmonary artery banding, transverse aortic constriction, ischemic model, and hemodynamics assessment.

Jeffrey Isenberg MD MPH
Dr. Isenberg’s research interests have centered on the need to enhance tissue blood flow, perfusion, and wound healing, and reflect his background as a reconstructive microsurgeon. As a clinician, the focus of his work was the development and application of novel autologous composite tissue units for closure of complex wounds. In addition to anatomical research in tissue vascular anatomy, he studied the ability of complex tissue reconstructive units to withstand stress injuries. This enabled him to improve the clinical range of these surgical approaches. However, limitations with clinical results achievable via surgical interventions alone motivated him to focus purely on research. He now studies the molecular aspect of blood flow and perfusion, and has recently discovered a novel inhibitory pathway that blocks physiologic nitric oxide (NO) signaling.
Tamir Kanias PhD
Dr. Kanias’s research interests center on red blood cell physiology and pathology. Specifically, he focuses on the red blood cell storage lesion; molecular and genetic determinants of hemolysis; donor genetic variability, including gender in stored red blood cells; the role of sex hormones, particularly androgens, in modulating hemolysis during storage and after transfusion; the characterization of canonical transient receptor potential (TRPC) cation channels and voltage-gated calcium; channels in human and mouse red cells; and the development of new therapeutics for red cell storage and transfusion, using steroid and non steroid TRPC blockers.

Maria Kapetanaki PhD
Dr. Kapetanaki is a molecular biologist with a long-standing interest in the regulation of gene expression in human diseases affecting normal lung function. Her research focuses on identifying the molecular pathways underlying pulmonary hypertension, which is a common complication in the sickle-cell patient population. Her current projects include the study of the regulatory mechanism of heme-induced Placenta growth Factor (PIGF) and the role of heme-induced genes in hematopoietic cells. More specifically, she investigates the role of oxidant response pathways, especially the Nrf-2 transcription factor and its upstream regulators. She employs cell culture and murine models and applies techniques such as gene silencing, gene editing, and drug treatment to describe the steps of heme activation.

Ana Mora MD
Dr. Mora’s research is focused on the understanding of the pathogenesis of idiopathic Pulmonary Fibrosis (IPF), a fatal and progressive lung disease, characterized by progressive scarring of the lung. IPF prevalence dramatically increases with age, and aging is a known risk factor for the disease. But there is limited understanding about the mechanisms involved in the increased vulnerability of the aging lung to develop lung fibrosis. Mitochondrial dysfunction is a hallmark of aging, but the role of mitochondria in IPF pathobiology is unknown. Dr. Mora’s lab recently discovered that AECII from human IPF lung have an accumulation of dysmorphic and dysfunctional mitochondria associated with very low expression of the crucial protective protein involved in mitochondrial homeostasis, PTEN-induced putative kinase 1 (PINK1). Low expression of PINK1 leads to increased susceptibility to cell apoptosis and fibrosis. However, no information is available how PINK1 expression is regulated and how loss of PINK1 activates pro-fibrotic responses. Studies being done in the Mora lab reveal a unique molecular model linking mitochondrial dysfunction and fibrosis that sets the stage for identifying novel links of aging and fibrosis and therapeutic targets for IPF. Dr. Mora’s research utilizes a combination of novel animal models with genetically altered mice and human subjects. Her research team’s published findings identified alterations in mitochondrial homeostasis in the aging type alveolar epithelial cell (AECII) as a critical component of the pathogenesis of IPF. Currently, the lab is extending its studies extending to other diseases characterized by abnormal tissue repair and exaggerated remodeling including pulmonary hypertension (PH).

Solomon Ofori-Acquah PhD
Dr. Ofori-Acquah has a research interest in molecular hematology, endothelial barrier function, sickle cell disease (SCD) and global health. His basic science research involves mechanisms of neutralizing erythroid danger associated molecular pattern (eDAMP) molecules. This work encompasses studies of developmental, genetic, and epigenetic regulation of hemopexin and heme oxygenase-1, the key neutralizing molecules of extracellular heme the prototypical eDAMP. This basic research is translated to understanding the role and mechanism of extracellular heme in the pathobiology of vascular complications in SCD. A major translational focus is acute chest syndrome, the leading cause of premature death in SCD. The Ofori-Acquah lab developed the first mouse model of acute chest syndrome. This preclinical model is currently being used to find targeted therapies for acute chest syndrome. His global health research centers on a longitudinal observational study of a large newborn cohort in Ghana to define markers of end-organ damage in SCD. Additional global health work focused also on SCD is performed under the auspices of the H3Africa consortium with a multi-disciplinary team of collaborators in Cameroon, Tanzania, and South Africa. Dr. Ofori-Acquah directs a research education NIH funded R25 program aimed at catalyzing the training of graduates, postdocs, and junior faculty in blood science research. He is Visiting Professor and Director of a Human Genetics graduate course in a Wellcome Trust funded DELTAS (Developing Excellence in Leadership, Training and Science) program at the University of Ghana in collaboration with the Pitt Graduate School of Public Health.
Courtney Sparacino-Watkins PhD
Dr. Sparacino-Watkins’ dissertation work established that the Epsilonproteobacterial periplasmic nitrate reductase (Nap) system has a high affinity for nitrate and unique molecular differences (Sparacino-Watkins, et al. Chem. Soc. Rev. 2014). She utilized several methodologies, such as theoretical protein structure modeling, matrix-based phylogenetic analysis, mass spectrometry, recombinant protein purification, and enzyme kinetics. She developed methodology to design and isolate recombinant proteins with organic prosthetic groups, including molybdopterin of molybdenum-dependent enzymes.

During her post-doctoral training, Dr. Sparacino-Watkins redirected her research to focus on translational and biomedical research. With Dr. Mark Gladwin she utilized her background on bacterial nitrogen metabolism and molybdenum enzymes to study inorganic nitrogen (nitrate, nitrite, and nitric oxide) metabolism in humans. She identified a new aspect of the nitrate-nitrite-nitric oxide pathway by establishing that the human mARC-1 and mARC-2 molybdenum enzymes are able to reduce nitrite into NO (Sparacino-Watkins, et. al, JBC, 2014). Additionally, she has been instrumental in developing new experimental methods for quantitation of nitric oxide using the nitric oxide analyzer (NOA), a sensitive analytic method that utilizes gas-phase chemiluminescence and provides unmatched specificity for nitric oxide. She is also active in characterization of other human nitrite reductase enzymes.

Dr. Sparacino-Watkins continues her work on defining the molecular mechanisms behind the therapeutic effects of nitrite on pulmonary arterial hypertension. She is now working on defining the function of mARC enzyme catalyzed nitrite reduction to NO in vivo by studying the effect of mARC2 knockout in mice on the therapeutic effects of nitrite in pulmonary arterial hypertension.

Bin Sun, MD
Nitric Oxide(NO) is essential in regulating vasodilation. Dr. Mark Gladwin’s lab has discovered nitrite, as NO a reservoir, can be reduced to NO by hemoglobin. Molybdenum(Mo)-containing enzyme mitochondrial amidoxime reducing component 2(mARC2) has also been shown to chemically reduce nitrite to NO under hypoxic condition. Dr. Sun’s research is focusing on establishing cell models by altering mARC2 expression in COS7, endothelial, and smooth muscle cells to study the functions and mechanisms of mARC2 as nitrite reductase. The potential of sGC enzyme itself as a nitrite reductase is under investigation. The potential role of sGC modulators Bay 41 and Bay 58 compounds in the treatment of sickle cells symptoms by increasing fetal hemoglobin gene expression has been discovered by Gladwin’s lab. The molecular mechanisms and pathways involved in sGC modulators induced fetal hemoglobin gene expression in human primary erythroid progenitor cells are being explored.

Prithu Sundd PhD
Dr. Sundd’s research interests include mechanisms of leukocyte rolling and arrest during inflammation; the role of neutrophils in pulmonary vaso-occlusion during sickle cell disease Acute Chest Syndrome; and identifying molecular mechanism of vaso-occlusion in SCD (SS) patient blood.

Jesus Tejero Bravo PhD
Dr. Tejero’s research focuses on the reactions of nitrite and nitric oxide with heme proteins. The nitrite-heme reactions are of growing interest because of their role in nitric oxide signaling pathways and because they play a significant role in physiological and pathological situations. His current research is aimed at understanding and characterizing the chemical and kinetic features of the reactions of nitrite with hemoglobin, myoglobin, cytoglobin and neuroglobin.

Ling Wang MD PhD
Dr. Wang has two main areas of interest: (1) Nitrite and NO signaling pathway in vascular and cardiopulmonary diseases such as ALI, lung fibrosis, PAH and I/R injury. The purpose of this research is to investigate the downstream signaling pathways regulated by nitrite and NO in cellular and animal models in order to identify new therapeutic targets and develop nitrite-based therapy; and (2) mutant human Ngb as an antidote for carbon monoxide poisoning. This research seeks to develop a specific antidote using mutationally engineered human Ngb as a “CO trap” which removes CO from blood, tissue, and cells.
Faculty Research and Other Scholarly Activities

Imad Al-Ghouleh PhD
- Reviewer, American Journal of Hypertension, 2010-present
- Reviewer, Journal of Cardiovascular Medicine, 2011-present
- Reviewer, Arteriosclerosis, Thrombosis, and Vascular Biology, 2012-present
- Reviewer, American Journal of Physiology-Heart and Circulatory Physiology; International Journal of Molecular Sciences; Antioxidants and Redox Signaling, 2013-present
- Junior Faculty Bench Research Award, Department of Medicine Annual Research Day, University of Pittsburgh, 2015
- Annual Hypertension Conference Travel Awards for New Investigators, Council on Hypertension, American Heart Association, 2015

Dennis Bruemmer MD PhD
- Ad hoc Reviewer, National Institutes of Health (NIH/NHLBI), Atherosclerosis and Inflammation of the Cardiovascular System (AICS), 2015
- National Institutes of Health (NIH), Special Emphasis Panel ZRG1 CB-T 02 M, Cellular Mechanisms in Aging and Development Study Section, 2015
- Member, Physician Scientist and Clinical Scholars Committee, University of Kentucky, 2010-present
- Committee Chair, Gill Heart Institute Seminar and Research Day Executive Planning Committee, University of Kentucky, 2010-present
- National Committee Member, American Diabetes Association, 2003-present
- American Heart Association, Great Rivers Affiliate Research Committee Member, 2015-present
- Editorial Board, Molecular Metabolism, Arteriosclerosis, Thrombosis, and Vascular Biology, 2012-present
- Editorial, Clinical Sciences, 2009-present

Grant C. Bullock MD PhD
- College of American Pathologists, 2002-present
- International Academy of Pathology, 2004-present
- United States and Canadian Academy of Pathology, 2004-present
- Academy of Clinical Laboratory Physician Scientists, 2004-present
- Editorial Board, American Journal of Clinical Pathology, 2008-present
- International BioIron Society, 2008-present
- American Society of Hematology, 2009-present
- Fellow, College of American Pathologists, 2010-present

Stephen Y. Chan MD PhD FAHA
- Reviewer, AOA Carolyn L. Kuckein Student Research Fellowship, 2012-2015
- Editorial Board, microRNA Diagnostics and Therapeutic, 2013-present
- Ad Hoc Reviewer, Health Research Board–Ireland; National Research Fund (CORE program)–Luxembourg; Novo Nordisk Foundation–Denmark, 2015
- Chair’s Prize for Research Excellence, 2015
- Editorial Board, Pulmonary Circulation, 2015-present
- Editorial Board, Consulting Editor, JCI Insight, 2015-present
- Elected Member, Consulting Editor, The American Society for Clinical Investigation, 2016
Partha Dutta DVM PhD
- Ad hoc reviewer, Oncotarget, 2015
- K Grant Writing Workshop, Department of Medicine, University of Pittsburgh, 2016
- Pilot Project Program in Hemostasis and Vascular Biology, Vascular Medicine Institute, University of Pittsburgh, 2016
- HVI/VMi Innovator Award, Vascular Medicine Institute, University of Pittsburgh, 2016

Mark T. Gladwin MD
- American Society of Clinical Investigations (ASCI), 2006-present
- Fellow, American College of Physicians, 2008-present
- Member, 3CPR Scientific Sessions Programming (CSSP) Committee, American Heart Association, 2016
- Member, Science & Clinical Education Lifelong Learning Committee (SCILL), American Heart Association, 2016 – 2018
- American Heart Association/American Stroke Association Research Committee, 2015-2016
- Associate Editor, American Journal of Respiratory and Critical Care Medicine, 2015-2020
- Associate Editor, Pulmonary Circulation, 2015-2016
- Board of Directors, Beckwith Institute, 2016-Present
- Society for Free Radical Biology and Medicine, 2002-present
- Editorial Board, Journal of Hematology, 2007-present
- Editorial Board, Society for Free Radical Biology and Medicine, 2007-present
- Editorial Board, American Physiology Journal, Lung Cellular and Molecular Physiology, 2011-present
- Fellow, Pulmonary Vascular Research Institute (PVRI),2013-present
- LiveLikeLou.Org Advisory Council, 2013-Present
- American Thoracic Society, 1998-present
- American Society of Hematology, 2002-present
- Association of American Physicians (AAP), 2009
- American Association for the Advancement of Science (AAAS), 2012-present
- American Association of Blood Banks (AABB), 2012-present
- American Society for Pharmacology and Experimental Therapeutics (ASPET), 2013-present
- Pulmonary Hypertension Association (PHA), 2013-present
- Professional Member, American Heart Association, 2008-present
- Reviewer, Institute for Precision Cardiovascular Medicine, American Heart Association, 2016

Elena Goncharova PhD
- Reviewer, Medical Research Council (UK), 2015
- Member, ATS Pulmonary Circulation Assembly Program Committee, 2015
- Scientific Reviewer, Department of Defense TSCRP Clinical and Experimental Therapeutics, 2015
- Reviewer, NIH/NHLBI ZRG1 CVRS G (02) M Pulmonary Diseases, 2016
- Member, ATS Pulmonary Circulation Assembly Program Committee, 2016
Jeffrey Isenberg MD MPH
- Cancer Redox/Biology Working Group, National Cancer Institute, 2004-present
- North American Vascular Biology Organization, 2007-present
- Science Award, 3rd International Role of Nitrite in Physiology, Pathophysiology and Therapeutics Meeting, American Heart Association, 2009-present
- Co-Chair, AHA Vascular Wall Biology Committee, 2009-present
- Chair, AHA Vascular Wall Biology Committee, 2012-present
- AHA Fellows Research Day Task Force, 2013-present
- AHA Collaborative Science Award LOI Reviewer Group 2, 2013-Present
- Grant Reviewer, Maryland Industrial Partnerships Program (MIPS), Spring 2015
- Study Section, Special Emphasis Panel NIH/NCI – Wound Healing Preparations Incorporating Nitric Oxide-Releasing Materials (NIH Technology Transfer), Summer 2015
- The American Physiological Society Publications 2015 Star Reviewer
- Editorial board, America Journal Physiology-Cell, 2015-present
- Chair-Elect, 2019 Triennial FASEB SRM on Matricellular Proteins, 2016

Gregory Kato MD
- Editorial Board, Haematologica, the Hematology Journal, 2008-Present
- Sickle Cell Trait Literature Review Work Group, Social and Behavioral Research Branch, National Human Genome Research Institute, 2011-Present
- Medical Director, Children’s Sickle Cell Foundation, Pittsburgh, PA, 2014-present
- Steering Committee, Evaluation of Purified Poloxamer 188 in Vaso-Occlusive Crisis of Sickle Cell Disease (EPIC), 2014-present
- Scientific Chair, Ninth Annual Sickle Cell Disease Research and Educational Symposium, Miami, FL, 2015
- Ad Hoc Member, NIH review of grant applications submitted in response to PAR-13-009: Secondary Dataset Analyses in Heart, Lung, and Blood Diseases and Sleep Disorders, 2015
- Ad-Hoc Grant Application Reviewer, French National Research Agency (ANR), 2015
- Editorial Board, Heliyon Journal, 2015-Present
- Enterprise Development Certificate of Achievement, University of Pittsburgh, 2015

Brett Kaufman PhD
- Member, Mitochondria Research Society, 2009-present
- Review Editor, Frontiers in Genetics of Aging, 2011-present
- Reader, United Mitochondrial Disease Foundation grant review panel, 2015
- Grant Reviewer, Netherlands Organization for Scientific Research (NWO), 2015
- Grant Reviewer, Medical Research Council (United Kingdom), 2015
- Ad hoc Grant Reviewer, Children’s Hospital of Eastern Ontario (CHEO) Research Institute, Canada, 2015
- Ad hoc Grant Reviewer, Natural Science and Engineering Research Council of Canada (NSERC), 2015
- Grant Review Committee, United Mitochondrial Disease Foundation, 2016
- Grant Reviewer, Pitt Vascular Medicine Institute Pilot Project Program in Hemostasis and Vascular Biology, 2016
- Grant Reviewer and Study Section Chair: Pitt VMI-HVI Innovator Awards, 2016
Ana Mora PhD
- Aging Committee, American Thoracic Society, RCMB Assembly, 2012-present
- Reviewer, NIH NHLBI RFA Aging, 2015
- Reviewer, Medical Research Program, Pulmonary Fibrosis Panel, Department of Defense Congressionally Directed Medical Research Programs (CDMRP), 2015
- Aging Biology Center, Mechanisms in Geroscience Search Committee, 2015-present

Shanmugam Nagarajan PhD
- Editorial Board, *Chemico-Biological Interactions*, 2011-present
- Editorial Board, *Symbiosis--Journal of Immunology*, 2013-present
- Editorial Board, *Journal of Nutritional Health and Food Science*, 2013-present
- Editorial Board, *Journal of Nutritional Biochemistry*, 2014-present
- Peer Reviewer, Veterans Administration Grants, –2014-present

Enrico Novelli MD
- Member, Protocol Review Committee, Pittsburgh Cancer Institute, 2008-present
- Annual Meeting Abstract Reviewer, American Society of Hematology, 2015
- Study Section Member, American Heart Association (AHA), 2013-present
- Member, NIH SBIR/STTR study section, 2015-present
- Peer reviewer, *UpToDate*, 2016
- Coordinating Reviewer, American Society of Hematology Annual Meeting, 2016
- Group Leader, American Society of Hematology Global Health Sickle Cell Disease Work Group, Sickle Cell Disease Task Force, 2015-present
- Member, ASH Scientific Committee on Thrombosis and Vascular Biology, 2016-2020
- Health Volunteers Overseas Liaison to the ASH International Members Committee, 2016-2017

Solomon Ofori-Acquah PhD
- Ghana Biomedical Convention, 2008-present
- Ad Hoc Grant Review Committee, American Society of Hematology, Minority Medical Student Award, member, 2010-Present
- Chair, Minority Graduate Student Abstract Achievement Award Committee, American Society of Hematology, 2011-Present
- Member, Respiratory Integrative Biology and Translational (RIBT) Science Study Section, NIH, 2013-2019

Patrick Pagano PhD
- Standing Member, Hypertension & Microcirculation Study Section, NIH/NHLBI, 2011-2017
- K99/R00 Study Section Special Emphasis Panel ZGM1 TWD-A, November 2015
- Associate Editor, *Clinical Science*, 2012-present
• Editorial Board, Circulation Research, Free Radical Biology and Medicine, American Journal of Physiology (Heart and Circulatory) Cardiovascular Research, 2016
• Member, Vascular Medicine Institute Internal Advisory Board, University of Pittsburgh Medical Center, 2008-present
• Member, Department of Pharmacology and Chemical Biology Executive Committee, University of Pittsburgh, 2009-present
• Member, Department of Pharmacology and Chemical Biology Promotions & Appointments Committee, University of Pittsburgh, 2009-present
• Member, Steering Committee, School of Medicine Interdisciplinary Biomedical Graduate Program, University of Pittsburgh, 2010-present
• School of Medicine Graduate Council, University of Pittsburgh, 2010-present
• Member, Basic Science, Circulation and High Blood Pressure Councils, American Heart Association, 1994-present
• NIH/NHLBI Hypertension & Microcirculation Study Section Standing Member, 2011-2017
• Programming Committee, AHA Council for High Blood Pressure Research Conference, 2015-present
• Ad hoc Reviewer, NIH Director’s Early Independence Award (DP5), ZRG1 RPHB-W 53 R, April 2016
• Member, Fall Conference Committee, Council on Hypertension, AHA, 2015-2017
• American Heart Association – SURP Steering Committee Service, 2015-present

Iain Scott PhD
• Ad hoc Early Career Reviewer, NIH Study Section on Myocardial Ischemia and Metabolism, 2015
• Ad hoc Study Section Reviewer, Competitive Medical Research Fund, University of Pittsburgh 2016
• Member, Cardiovascular Section Development Committee, American Physiological Society, 2016
• Member, Strategic Alliances Outreach Committee, Society for Redox Biology and Medicine, 2016

Sruti Shiva PhD
• Member, SFRBM Council, 2011-present
• VMI Internal Advisory Board, 2009-present
• Member, Department of Pharmacology & Chemical Biology Graduate Executive Committee, 2009-present
• American Heart Association Membrane and Subcellular Organelle II Study Section, 2009-present
• AHA Pittsburgh Fellow’s Research Day Taskforce, 2011-present
• SFRBM Vice President of Finance, 2012-present
• Editorial Board, Redox Biology Journal, 2012-present
• Elected Vice Chair, Gordon Research Conference on NO, 2013-present
• Grant Review Panel, American Diabetes Association, 2014-present
• Ad hoc reviewer, NIH MIM and VH study sections, 2015
• Editorial Board, British Journal of Pharmacology, 2015-present
• Co-Chair, American Physiological Society Meeting on Translational Bioenergetics, 2015
• Ad hoc reviewer, NIH VCMB study section, 2016
• Elected Chair, 2017 APS National Meeting on Translational Bioenergetics, 2017

Cynthia St. Hilaire PhD
• Member, NHLBI Fellows Advisory Committee, 2010-2015
• Early Career Committee, American Heart Association, Council on Arteriosclerosis, Thrombosis, and Vascular Biology, 2014-present
• Orloff Science Award, NHLBI, 2015
• Co-Chair, American Heart Association Scientific Sessions, ATVB Early Career Investigator Award Finalists Session, 2015
• Co-Chair, NAVBO Vascular Biology, Vascular Matrix Calcification Session, 2015
• PhD Security Task Force, University of Pittsburgh, Department of Medicine, 2015-present
• University of Pittsburgh, Vascular Medicine Institute, Pilot Project Program in Hemostasis and Vascular Biology, 2016
• Steering Committee, AHA Summer Undergraduate Research Program (SURP) in Cardiovascular Sciences, 2016
• Genomics Research Core Advisory Committee, 2016
• Co-Chair, ATVB|PVD Scientific Sessions, Succeeding at Every Stage: Insights from the Early Career Committee, The importance of mentoring and being mentored, 2016
• ATVB Early Career Committee Liaison, ATVB Women's Leadership Committee, 2016
• Member, ATVB Nomination and Awards Committee, 2016-2018

Adam Straub PhD
• American Heart Association; Member of Vascular Wall Biology, Blood Pressure, 2014-present
• Medical Research Council, UK Ad Hoc 2015

Prithu Sundd PhD
• Reviewer, AHA-Immunology Basic Science grants committee, 2014-present
## GRANTS AND CONTRACTS AWARDED

<table>
<thead>
<tr>
<th>PUBLIC HEALTH SERVICE</th>
<th>PROJECT DESCRIPTION</th>
<th>AWARDING AGENCY</th>
<th>DIRECT COSTS</th>
<th>INDIRECT COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BENNEWITZ, MARGARET</td>
<td>Pulmonary arteriole micro-embolism by platelet-neutrophil aggregates promotes sickle cell disease acute chest syndrome</td>
<td>NHLBI</td>
<td>$21,441</td>
<td>$0</td>
</tr>
<tr>
<td>GLADWIN, MARK</td>
<td>Genetic basis of differential blood donor RBC storage capacity/polymorphisms that improve hemoglobin and/or storage iron in high density blood donors study (Reds III Phase II)</td>
<td>Blood Systems, Inc./NIH</td>
<td>$33,336</td>
<td>$17,967</td>
</tr>
<tr>
<td>GLADWIN, MARK</td>
<td>Reactive oxygen species in vascular disease</td>
<td>NHLBI</td>
<td>$11,255</td>
<td>$6,078</td>
</tr>
<tr>
<td>GLADWIN, MARK</td>
<td>Translational pulmonary vascular biology</td>
<td>NHLBI</td>
<td>$293,370</td>
<td>$20,314</td>
</tr>
<tr>
<td>GLADWIN, MARK</td>
<td>Storage lesion in banked blood due to disruption of nitric oxide hemostasis</td>
<td>NHLBI</td>
<td>$519,294</td>
<td>$176,244</td>
</tr>
<tr>
<td>GLADWIN, MARK</td>
<td>Antidote for inhaled CO poisoning based on mutationally engineered neuroglobin</td>
<td>NHLBI</td>
<td>$300,476</td>
<td>$138,971</td>
</tr>
<tr>
<td>GLADWIN, MARK</td>
<td>Effects of nitric oxide in sickle cell blood</td>
<td>Wake Forest University / NHLBI</td>
<td>$21,570</td>
<td>$11,109</td>
</tr>
<tr>
<td>GLADWIN, MARK</td>
<td>Vascular subphenotypes of lung disease - Project 3</td>
<td>NHLBI</td>
<td>$191,021</td>
<td>$98,376</td>
</tr>
<tr>
<td>GONCHAROVA, ELENA A.</td>
<td>Mtor coordinates cell metabolism, growth and survival in pulmonary hypertension</td>
<td>NHLBI</td>
<td>$246,668</td>
<td>$120,477</td>
</tr>
<tr>
<td>GONCHAROVA, ELENA A.</td>
<td>Hippo signaling in pulmonary arterial hypertension</td>
<td>NHLBI</td>
<td>$106,195</td>
<td>$54,711</td>
</tr>
<tr>
<td>ISENBERG, JEFFREY S.</td>
<td>TSP-1 ROS: CD47 and SIRP-alpha as mediators of vascular dysfunction</td>
<td>NHLBI</td>
<td>$95,936</td>
<td>$51,806</td>
</tr>
<tr>
<td>ISENBERG, JEFFREY S.</td>
<td>Immunoregulatory mechanisms of IL-33 in heart transplantation</td>
<td>NHLBI</td>
<td>$12,906</td>
<td>$6,969</td>
</tr>
<tr>
<td>ISENBERG, JEFFREY S.</td>
<td>Bioengineering tracheas through targeting activated CD47</td>
<td>NIBIB</td>
<td>$88,855</td>
<td>$42,103</td>
</tr>
<tr>
<td>Name</td>
<td>Project Description</td>
<td>Funding Agency</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>--------------------</td>
<td>-------------------------------------------------------------------------------------</td>
<td>--------------------</td>
<td>---------------</td>
<td>----------------</td>
</tr>
<tr>
<td>ISENBERG, JEFFREY S.</td>
<td>Biodegradable Synthetic Vascular Graft</td>
<td>NHLBI</td>
<td>$75,501</td>
<td>$40,772</td>
</tr>
<tr>
<td>ISENBERG, JEFFREY S.</td>
<td>Regulators of Ischemic Fracture Healing</td>
<td>Michigan State University/NIAMS</td>
<td>$35,305</td>
<td>$19,065</td>
</tr>
<tr>
<td>ISENBERG, JEFFREY S.</td>
<td>Augmentation of CD47 Signaling in Aging Exacerbates Cardiovascular Disease</td>
<td>NHLBI</td>
<td>$35,301</td>
<td>$19,063</td>
</tr>
<tr>
<td>isenberg, jay</td>
<td>SCN5A Gene and Prolonged QT in Sickle Cell Disease</td>
<td>University of Mississippi Medical Center/NIH</td>
<td>$10,000</td>
<td>$5,400</td>
</tr>
<tr>
<td>KUTTEN, JOHANNES</td>
<td>TSP1-CD47 Signaling Limits Restoration of Decellularized and Synthetic Tracheal Transplants</td>
<td>NIBIB</td>
<td>$21,788</td>
<td>$0</td>
</tr>
<tr>
<td>MORA, ANA</td>
<td>F Box-Induced Acute Lung Injury and Parkin</td>
<td>NHLBI</td>
<td>$2,564</td>
<td>$1,385</td>
</tr>
<tr>
<td>MORA, ANA</td>
<td>Signaling Mechanisms by Which Mitochondria Regulates Fibrosis in the Lung</td>
<td>NHLBI</td>
<td>$62,761</td>
<td>$33,891</td>
</tr>
<tr>
<td>MORA, ANA</td>
<td>Vascular Subphenotypes of Lung Disease</td>
<td>NHLBI</td>
<td>$158,698</td>
<td>$81,729</td>
</tr>
<tr>
<td>MORA, ANA</td>
<td>Aging of Mesenchymal Stem Cells Missing Link in IPF</td>
<td>NHLBI</td>
<td>$13,941</td>
<td>$7,528</td>
</tr>
<tr>
<td>MORA, ANA</td>
<td>Epithelial-Fibroblast Interactions in Lung Fibrosis</td>
<td>Vanderbilt University/NHLBI</td>
<td>$5,131</td>
<td>$2,642</td>
</tr>
<tr>
<td>NOVELLI, ENRICO</td>
<td>Platelet TSP1 Mediates Vascular Disease and PH in Sickle Cell Disease</td>
<td>NHLBI</td>
<td>$122,400</td>
<td>$9,792</td>
</tr>
<tr>
<td>NOVELLI, ENRICO</td>
<td>Neuro-Vascular Determinants of Cognition in Adults with Sickle Cell Disease</td>
<td>NHLBI</td>
<td>$50,199</td>
<td>$24,456</td>
</tr>
<tr>
<td>OFORI-ACQUAH, SOLOMON FIIFI</td>
<td>Pittsburgh Intensive Training in Hematology Research (PITHR)</td>
<td>NHLBI</td>
<td>$70,828</td>
<td>$5,666</td>
</tr>
<tr>
<td>OFORI-ACQUAH, SOLOMON FIIFI</td>
<td>Cellular and Molecular Mechanisms of Acute Lung Injury in Sickle Cell Disease</td>
<td>Emory University/ NHLBI</td>
<td>$450,939</td>
<td>$243,507</td>
</tr>
<tr>
<td>OFORI-ACQUAH, SOLOMON FIIFI</td>
<td>Role of Erythroid Damp Molecules in the Pathogenesis of Vascular Injury in Sepsis</td>
<td>NIGMS</td>
<td>$78,071</td>
<td>$42,159</td>
</tr>
<tr>
<td>Name</td>
<td>Title</td>
<td>Institute</td>
<td>Direct Costs</td>
<td>Indirect Costs</td>
</tr>
<tr>
<td>------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>-----------</td>
<td>--------------</td>
<td>----------------</td>
</tr>
<tr>
<td>OFORI-ACQUAH, SOLOMON FIIFI</td>
<td>MECHANISMS OF ENDOTHELIAL BARRIER PHENOTYPES IN SICKLE CELL DISEASE</td>
<td>NHLBI</td>
<td>$246,250</td>
<td>$132,974</td>
</tr>
<tr>
<td>OFORI-ACQUAH, SOLOMON FIIFI</td>
<td>MECHANISMS OF ENDOTHELIAL BARRIER PHENOTYPES IN SICKLE CELL DISEASE</td>
<td>NHLBI</td>
<td>$70,427</td>
<td>$38,031</td>
</tr>
<tr>
<td>SHIVA, SRUTI</td>
<td>CAMK: CENTRAL REGULATORS OF THE RESPONSE TO SURGICAL SEPSIS</td>
<td>NIGMS</td>
<td>$9,558</td>
<td>$5,161</td>
</tr>
<tr>
<td>SHIVA, SRUTI</td>
<td>CARDiOLIPIN AS A NOVEL MEDIATOR OF ACUTE LUNG INJURY - CORE D (IMAGING)</td>
<td>NHLBI</td>
<td>$9,163</td>
<td>$4,948</td>
</tr>
<tr>
<td>SHIVA, SRUTI</td>
<td>MECHANISMS OF ANTIGEN-INDUCED TOLERANCE IN THE LUNG</td>
<td>NIAID</td>
<td>$6,294</td>
<td>$3,399</td>
</tr>
<tr>
<td>SHIVA, SRUTI</td>
<td>ADIPOSITY AND AIRWAY INFLAMMATION IN HIV-ASSOCIATED AIRWAY DISEASE</td>
<td>NHLBI</td>
<td>$9,393</td>
<td>$5,072</td>
</tr>
<tr>
<td>SHIVA, SRUTI</td>
<td>NITRITE AND HYPOXIA INCREASE MITOCHONDRIAL BIogenesis AND INSULIN SENSITIVITY</td>
<td>NHLBI</td>
<td>$28,899</td>
<td>$15,605</td>
</tr>
<tr>
<td>SHIVA, SRUTI</td>
<td>ANTIcARCINOGENIC EFFECT OF ITCS AGAINST PROSTATE CANcer</td>
<td>NCI</td>
<td>$9,511</td>
<td>$5,136</td>
</tr>
<tr>
<td>SHIVA, SRUTI</td>
<td>RV/PA RECOUPLING BY BONE MARROW DERIVED MESENCHYMAL STEM CELLS</td>
<td>NHLBI</td>
<td>$28,495</td>
<td>$0</td>
</tr>
<tr>
<td>SHIVA, SRUTI</td>
<td>BREAST CANCER PREVENTION BY AYURVEDIC MEDICINE CONSTITuENTS</td>
<td>NCI</td>
<td>$9,511</td>
<td>$5,136</td>
</tr>
<tr>
<td>SHIVA, SRUTI</td>
<td>ROLE OF ERYTHROID DAMP MOLECULES IN THE PATHOGENESIS OF VASCULAR INJURY IN SEPSIS</td>
<td>NIGMS</td>
<td>$154,570</td>
<td>$79,713</td>
</tr>
<tr>
<td>STRAUB, ADAM</td>
<td>PITTSBURGH CENTER FOR KIDNEY RESEARCH - STRAUB PILOT</td>
<td>NIDDK</td>
<td>$30,000</td>
<td>$16,200</td>
</tr>
<tr>
<td>STRAUB, ADAM</td>
<td>MECHANISMS OF INTRACELLULAR NAMPT-REGULATED GSNOR IN VESSEL WALL</td>
<td>NHLBI</td>
<td>$161,888</td>
<td>$87,312</td>
</tr>
<tr>
<td>STRAUB, ADAM</td>
<td>MICROBUBBLE-MEDIATED ULTRASONIC THERAPY FOR CORONARY MICROVASCULAR OBSTRUCTION</td>
<td>NHLBI</td>
<td>$4,737</td>
<td>$2,558</td>
</tr>
<tr>
<td>STRAUB, ADAM</td>
<td>ALZHEIMERS DISEASE RESEARCH CENTER - PILOT PROJECT</td>
<td>NIA</td>
<td>$14,938</td>
<td>$8,067</td>
</tr>
</tbody>
</table>

Department of Medicine [http://www.vmi.pitt.edu](http://www.vmi.pitt.edu)
<table>
<thead>
<tr>
<th>Vascular Medicine Institute</th>
<th>FY 2015-2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIRECT</td>
<td>INDIRECT</td>
</tr>
<tr>
<td>COSTS</td>
<td>COSTS</td>
</tr>
<tr>
<td>PULMONARY ARTERIOLE</td>
<td></td>
</tr>
<tr>
<td>OCCLUSION BY PLATELET-</td>
<td></td>
</tr>
<tr>
<td>NEUTROPHIL MICRO-EMBOLI</td>
<td></td>
</tr>
<tr>
<td>IN ACUTE CHEST SYNDROME</td>
<td></td>
</tr>
<tr>
<td>NHLBI</td>
<td>$225,528</td>
</tr>
<tr>
<td></td>
<td>$121,785</td>
</tr>
<tr>
<td>TOTAL PUBLIC HEALTH SERVICE</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$4,154,912</td>
</tr>
<tr>
<td></td>
<td>$1,813,277</td>
</tr>
</tbody>
</table>

**FEDERAL**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DIRECT</td>
<td>INDIRECT</td>
<td></td>
</tr>
<tr>
<td>COSTS</td>
<td>COSTS</td>
<td></td>
</tr>
<tr>
<td>PHASE 3 RCT OF ARGinine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>THERAPY FOR PEDIATRIC SCD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PAIN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMORY</td>
<td>$4,147</td>
<td></td>
</tr>
<tr>
<td>UNIVERSITY/ FDA</td>
<td>$2,239</td>
<td></td>
</tr>
<tr>
<td>TOTAL FEDERAL</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$4,147</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$2,239</td>
<td></td>
</tr>
</tbody>
</table>

**SOCIETY AND FOUNDATIONS**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DIRECT</td>
<td>INDIRECT</td>
<td></td>
</tr>
<tr>
<td>COSTS</td>
<td>COSTS</td>
<td></td>
</tr>
<tr>
<td>STUDY OF THE ROLE OF MYOGLOBIN IN HE ZEBRAFISH HEART REGENERATION</td>
<td>RIMED FOUNDATION</td>
<td>$109,900</td>
</tr>
<tr>
<td>GENETIC BASIS OF DIFFERENTIAL BLOOD DONOR RBC STORAGE CAPACITY/POLYMORPHISMS THAT IMPROVE HEMOGLOBIN AND/OR STORAGE IRON IN HIGH INTENSITY BLOOD DONORS</td>
<td>INSTITUTE FOR TRANSFUSION MEDICINE</td>
<td>$20,733</td>
</tr>
<tr>
<td>HEMOSTASIS AND VASCULAR BIOLOGY RESEARCH INSTITUTE</td>
<td>HEMOPHILIA CENTER OF WESTERN PA</td>
<td>$1,388,889</td>
</tr>
<tr>
<td>UNIVERSITY OF PITTSBURGH UNDERGRADUATE STUDENT RESEARCH PROGRAM</td>
<td>AMERICAN HEART ASSOCIATION</td>
<td>$20,000</td>
</tr>
<tr>
<td>PATIENT CENTERED COMPREHENSIVE MEDICATION ADHERENCE MANAGEMENT SYSTEM AS A MEANS TO IMPROVING ADHERENCE WITH HYDROXYUREA FOR PATIENTS WITH SICKLE CELL</td>
<td>EMORY UNIVERSITY</td>
<td>$95,553</td>
</tr>
<tr>
<td>THE ROLE OF PINK1 IN MTDNA INTEGRITY AND TUMORIGENESIS</td>
<td>UNIVERSITY OF PITTSBURGH MEDICAL CENTER</td>
<td>$7,732</td>
</tr>
<tr>
<td>NEUROVASCULAR DETERMINANTS OF COGNITIVE FUNCTION IN ADULTS WITH SICKLE CELL DISEASE</td>
<td>AMERICAN SOCIETY OF HEMATOLOGY</td>
<td>$50,000</td>
</tr>
</tbody>
</table>

Department of Medicine [http://www.vmi.pitt.edu](http://www.vmi.pitt.edu)
<table>
<thead>
<tr>
<th>Name</th>
<th>Project Description</th>
<th>Funding Source</th>
<th>Direct Costs</th>
<th>Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHIVA, SRUTI</td>
<td>HEMOLYSIS INDUCED PLATELET ACTIVATION REQUIRES MITOCHONDRIAL SIGNALING</td>
<td>AMERICAN HEART ASSOCIATION</td>
<td>$35,000</td>
<td>$3,500</td>
</tr>
<tr>
<td>STRAUB, ADAM</td>
<td>ALPHA GLOBIN EXPRESSION IN PULMONARY ARTERY ENDOTHELIAL CELL MODULATES: NITRIC OXIDE SIGNALING IN CHRONIC HYPOXIA AND PULMONARY HYPERTENSION</td>
<td>BREATHE PENNSYLVANIA</td>
<td>$10,000</td>
<td>$0</td>
</tr>
<tr>
<td>STRAUB, ADAM</td>
<td>CYB5R3 AND VASCULAR FUNCTION</td>
<td>AMERICAN HEART ASSOCIATION</td>
<td>$35,000</td>
<td>$3,500</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL SOCIETY AND FOUNDATIONS</strong></td>
<td></td>
<td><strong>$3,022,807</strong></td>
<td><strong>$475,497</strong></td>
</tr>
<tr>
<td>INDUSTRY</td>
<td>USE OF SGC ACTIVATORS TO BYPASS NO SCAVENGING IN SCD</td>
<td>BAYER CORPORATION</td>
<td>$120,015</td>
<td>$30,004</td>
</tr>
<tr>
<td>GLADWIN, MARK</td>
<td>INVESTIGATIONS INTO THE MOLECULAR PATHWAYS BY WHICH DECELLULARIZED MATRIX REGULATES WOUND HEALING</td>
<td>ACELL, INC.</td>
<td>$49,199</td>
<td>$17,468</td>
</tr>
<tr>
<td>ISENBERG, JEFFREY S.</td>
<td>THE USE OF SGC ACTIVATORS TO BYPASS NITRIC OXIDE SCAVENGING BY HEMOLYSIS IN SICKLE CELL DISEASE</td>
<td>BAYER CORPORATION</td>
<td>$33,750</td>
<td>$0</td>
</tr>
<tr>
<td>MORA, ANA</td>
<td>PRECLINICAL EFFICACY OF SANGUINATE IN ACUTE CHEST SYNDROME: A PILOT STUDY</td>
<td>PROLON PHARMACEUTICALS</td>
<td>$18,060</td>
<td>$11,107</td>
</tr>
<tr>
<td>OFORI-ACQUAH, SOLOMON FIIFI</td>
<td></td>
<td></td>
<td><strong>$221,024</strong></td>
<td><strong>$58,579</strong></td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL INDUSTRY</strong></td>
<td></td>
<td><strong>$221,024</strong></td>
<td><strong>$58,579</strong></td>
</tr>
<tr>
<td>PUBLIC HEALTH SERVICE</td>
<td></td>
<td></td>
<td>$4,154,912</td>
<td>$1,813,277</td>
</tr>
<tr>
<td>FEDERAL</td>
<td></td>
<td></td>
<td><strong>$4,147</strong></td>
<td><strong>$2,239</strong></td>
</tr>
<tr>
<td>SOCIETY AND FOUNDATIONS</td>
<td></td>
<td></td>
<td><strong>$3,022,807</strong></td>
<td><strong>$475,497</strong></td>
</tr>
<tr>
<td>INDUSTRY</td>
<td></td>
<td></td>
<td><strong>$221,024</strong></td>
<td><strong>$58,579</strong></td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>$7,402,890</strong></td>
<td><strong>$2,349,592</strong></td>
</tr>
</tbody>
</table>
TEACHING ACTIVITIES

Vascular Medicine Institute Research Conference Series

Held every week from noon to 1 pm, the VMI Research Conference Series features presentations from Cardiology and Vascular Medicine Institute faculty—as well as visiting Professors and faculty candidates—who present state-of-the-art cardiology and vascular research findings to a large, multidisciplinary audience of fellows and faculty from across the institution. This year, the VMI Research Conference Series featured talks from esteemed researchers such as Gary Gibbons MD (Director of the National Heart, Lung, and Blood Institute); Timothy Hla PhD (Professor of Pathology and Laboratory Medicine and of Neuroscience, Director of the Center for Vascular Biology at Weill Cornell Medical College); and Gary K. Owens PhD (Professor, Director of the Robert M. Berne Cardiovascular Research Center at the University of Virginia School of Medicine).

VMI/HVI Research in Progress Conferences

Meeting weekly, the VMI/HVI Research in Progress Conference features two presentations given by either a fellow or junior faculty member. Presentations are approximately 20-25 minutes long, allowing 5-10 minutes for questions and discussion. With the opportunity to present two to three times each academic year, fellows are provided a forum in which they may improve their public speaking skills, and also elicit helpful questions and comments from more senior researchers with whom they interact less frequently. The conference offers the potential for new avenues of research and opportunities for collaboration.

VMI Journal Club

Held once a month, trainees lead a discussion with faculty and fellows about two published peer-reviewed articles per meeting, focusing on methodology and quality of research, as well as clinical or scientific impact.

VMI/HVI Fellows Research Retreat

This past February, the VMI, in conjunction with the Division of Cardiology, held its third annual fellows retreat, featuring a keynote presentation by Dr. Mukesh Jain of the Cleveland Clinic. With focused presentations by research faculty, new fellows were exposed to potential research areas and given an opportunity to develop mentor-mentee relationships outside of an academic setting. New cardiology trainees had the opportunity to formally present their work and interests, as well as informally socialize with other trainees and faculty during dinner, bowling, and skiing. The retreat, held February 3-5, 2016, at Seven Springs, sought to build a congenial atmosphere among VMI and HVI fellows and faculty, highlighting the general collaborative spirit of the University of Pittsburgh medical community. The 2017 retreat will be held February 8-10.

Grant Writing Workshop

We continue to offer a formalized, highly successful, and popular grant writing workshop for our postdoctoral fellows, preparing them for either NRSA or K award applications to the NIH. Fellows meet monthly with a group of senior T32 faculty to discuss all aspects of grant writing strategy and to have drafts of their Specific Aims pages and other application components critiqued by the group. We have experienced T32 faculty, all R01-funded and serving on NIH study sections, to guide the workshop. The fellows’ exposure to one another’s projects in a supportive environment enhances the rapid acquisition of grant-writing skills and contributes to the high success rates of our fellows at the NIH level.
Physician-Scientist Survival Skills Conferences

Drs. Christopher O'Donnell (Professor of Medicine in the Division of Pulmonary, Allergy and Critical Care Medicine, Department of Medicine, University of Pittsburgh School of Medicine), Dan Buysse (Professor of Psychiatry and Clinical and Translational Science, and Director of the Neuroscience Clinical and Translational Research Center at the University of Pittsburgh School of Medicine), and Bryan McVerry (Assistant Professor of Medicine and Environmental and Occupational Health and Director of the PACCm Fellowship Program) have developed a series of interactive presentations that serve as a core resource for multiple T32 programs for academic physicians with a focus on translational science. The primary objective of the series is to expose beginning physician-scientists to the essential skills of academic life in an informal interactive environment, with topics ranging from how to set up a lab to interviewing skills and negotiation.

K-to-R Workshops

Organized to precede junior faculty's R01 submissions, the function of these workshops is to provide assistance with grant proposals, ultimately leading to a greater percentage of R01-funded faculty across the institute. Interested junior faculty are given the opportunity to present their ideas and concepts for R-level proposals to a small team of highly experienced faculty with significant NIH study section portfolios and in-depth scientific knowledge related to the proposal.

Editorial Grant Review Core

VMI has initiated a grant-review process for trainees during their career development phase. Trainees submit their entire grant proposal three weeks prior to the NIH deadline and experienced reviewers critique the application and complete the required NIH review form (with a significant focus on weaknesses). The grant review process is mandatory for all trainees/junior faculty participating in the career development grant writing and K-to-R workshops and is a significant factor in the high funding success rates of our programs detailed above.
FACULTY

Faculty in Core Divisions
Fiscal Year 2014-2016

<table>
<thead>
<tr>
<th>Division</th>
<th>FY 2003 (Base Year)</th>
<th>FY 2014</th>
<th>FY 2015</th>
<th>FY 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vascular Medicine Institute</td>
<td>-</td>
<td>10</td>
<td>11</td>
<td>12</td>
</tr>
</tbody>
</table>

Note: Includes University of Pittsburgh full-time faculty and volunteer faculty who have a UPP appointment and excludes research associates, adjunct faculty and emeritus faculty.

Current Vascular Medicine Institute Faculty

Full-Time Faculty

<table>
<thead>
<tr>
<th>Name</th>
<th>Degree</th>
<th>Primary Title</th>
<th>Division</th>
<th>Previous Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bueno Fernandez</td>
<td>PhD</td>
<td>Research Associate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corti</td>
<td>PhD</td>
<td>Research Associate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goncharova Elena A.</td>
<td>PhD</td>
<td>Visiting Associate Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hazra Rimi</td>
<td>PhD</td>
<td>Research Associate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ho Renee</td>
<td>PhD</td>
<td>Research Associate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hu Jian</td>
<td>MD</td>
<td>Research Associate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Isenberg Jeffrey S.</td>
<td>MD</td>
<td>Associate Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kanias Tamir M.</td>
<td>PhD</td>
<td>Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kapetanaki Maria</td>
<td>PhD</td>
<td>Research Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mora Ana L. MD</td>
<td>PhD</td>
<td>Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ofori-Acquah Solomon</td>
<td>PhD</td>
<td>Associate Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raat Nicolaas J.</td>
<td>PhD</td>
<td>Adjunct Research Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sun Bin</td>
<td>MD</td>
<td>Research Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sundd Prithu</td>
<td>PhD</td>
<td>Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tejero Bravo Jesus</td>
<td>PhD</td>
<td>Research Assistant Professor of Medicine</td>
<td>Pulmonary/VMI</td>
<td>Postdoctoral Associate, University of Pittsburgh</td>
</tr>
<tr>
<td>Walker Aisha L.</td>
<td>PhD</td>
<td>Research Assistant Professor of Medicine</td>
<td>Pulmonary/VMI</td>
<td>Postdoctoral associate, University of Pittsburgh</td>
</tr>
<tr>
<td>Wang Jun</td>
<td>PhD</td>
<td>Research Associate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wang Ling MD, PhD</td>
<td></td>
<td>Research Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Watkins Courtney E.</td>
<td>PhD</td>
<td>Research Assistant Professor of Medicine</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

New Faculty Hires

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>MI</th>
<th>Degree</th>
<th>Primary Title</th>
<th>Division</th>
<th>Previous Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lai</td>
<td>Yen Chun</td>
<td></td>
<td>PhD</td>
<td>Research Assistant Professor of Medicine</td>
<td>Pulmonary/VMI</td>
<td>Postdoctoral Associate, University of Pittsburgh</td>
</tr>
<tr>
<td>Watkins</td>
<td>Courtney</td>
<td>E.</td>
<td>PhD</td>
<td>Research Assistant Professor of Medicine</td>
<td>Pulmonary/VMI</td>
<td>Postdoctoral associate, University of Pittsburgh</td>
</tr>
</tbody>
</table>
## POST DOCS

### Current Post Docs in FY 2015-2016

<table>
<thead>
<tr>
<th>Employee Last Name</th>
<th>Employee First Name</th>
<th>Degree Code</th>
<th>Current Title</th>
<th>Summary of activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bennewitz</td>
<td>Maggie</td>
<td>PhD</td>
<td>Postdoctoral Scholar</td>
<td>Dr. Bennewitz is using in vivo two-photon excitation microscopy to study the cellular and molecular mechanism driving pulmonary vaso-occlusion in sickle cell disease mice.</td>
</tr>
<tr>
<td>Belmonte</td>
<td>Frances</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Belmonte is studying the role of the G-quadruplex helicase PIF1 in the maintenance of mitochondrial function and weight control.</td>
</tr>
<tr>
<td>Braganza</td>
<td>Andrea</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Braganza studies changes in protein turnover and proteosomal degradation in platelets during healthy aging.</td>
</tr>
<tr>
<td>Brzoska</td>
<td>Tomasz</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Brzoska is using in vivo Multi-Photon Excitation enabled intravital fluorescence microscopy to identify the cellular and molecular cues that promote thrombosis and subsequent lung injury in transgenic SCD mice.</td>
</tr>
<tr>
<td>Chiba</td>
<td>Takuto</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Chiba is investigating novel matricellular protein signaling interactions in renal development and injury.</td>
</tr>
<tr>
<td>Coppin</td>
<td>Emilie</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Coppin is investigating the change Hematopoietic Stem and Progenitor Cells HSPC activation and differentiation and functions of inflammatory cells in cardiovascular diseases.</td>
</tr>
<tr>
<td>Czajka</td>
<td>Caitlin</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Czajka is studying the role of extracellular matrix and ROS in tissue engineering and wound healing.</td>
</tr>
<tr>
<td>de Jesus</td>
<td>Daniel</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. de Jesus is applying bioinformatics to interrogate new redox-sensitive mechanisms by which NADPH oxidase 1 modulates pulmonary arterial hypertension.</td>
</tr>
<tr>
<td>Fallabella</td>
<td>Micol</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Fallabella is studying the role of G-quadruplex structures in the regulation of mitochondrial function.</td>
</tr>
<tr>
<td>Florentin</td>
<td>Jonathan</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Florentin is studying the role and relevance of lung infiltrated pro-inflammatory monocytes in the expansion of lung interstitial macrophages in the context of pulmonary arterial hypertension.</td>
</tr>
<tr>
<td>Gbotosho</td>
<td>Bukola</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Gbotosho is studying the molecular pathways of heme entry and response to heme-induced expression of PLGF in bone marrow cells and how PLGF mediate vascular pathophysiology of pulmonary hypertension in sickle cell mouse. She is also investigating the Nrf2 oxidant stress response pathway in sensing excess intracellular heme-bound iron in cultured erythroid cells.</td>
</tr>
<tr>
<td>Ghimire</td>
<td>Kedar</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Ghimire is investigating the role of TSP1 to promote pathologic ROS production in response to blood flow changes and also consequent to advanced age.</td>
</tr>
<tr>
<td>Guimares</td>
<td>Danielle</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Guimares is studying a mechanism that nitrate activates PKA and mediates mitochondrial function and cytoprotection in normoxic conditions.</td>
</tr>
<tr>
<td>Ihunnah</td>
<td>Chibueze A.</td>
<td>PhD</td>
<td>Postdoctoral Scholar</td>
<td>Dr. Ihunnah is trying to understand the pharmacogenomic role of NRF2 agonists in hematopoietic and endothelial cells in the context of Sickle Cell Disease(SCD). We hope that these compounds show efficacy in the treatment of SCD patients suffering from pulmonary vascular dysfunction.</td>
</tr>
<tr>
<td>Kang</td>
<td>Inhae</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Kang is studying protein post-translational modification regulating the mitochondrial genome.</td>
</tr>
<tr>
<td>Employee Last Name</td>
<td>Employee First Name</td>
<td>Degree Code</td>
<td>Current Title</td>
<td>Summary of activities</td>
</tr>
<tr>
<td>--------------------</td>
<td>---------------------</td>
<td>-------------</td>
<td>--------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>Li</td>
<td>Yao</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Li is exploring the interplay of endothelial senescence and self-renewal genes in compromised peripheral vascular flow with aging.</td>
</tr>
<tr>
<td>Negi</td>
<td>Vinny</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Negi is exploring the role of miRNAs and novel drug targets in pulmonary hypertension.</td>
</tr>
<tr>
<td>Sahoo</td>
<td>Sanghamitra</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Sahoo's interests are focused on the epigenetic role of micro-RNAs (miRs) in regulating Nox-dependent ROS generation and lung vascular remodeling in PAH.</td>
</tr>
<tr>
<td>Thapa</td>
<td>Dharendra</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Thapa is investigating the novel role of GCN5L1 in controlling fatty acid oxidation and regulatory acetyl modifications of mitochondrial fuel utilization enzymes in normal and failing hearts.</td>
</tr>
<tr>
<td>Valli</td>
<td>Hanna</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Valli is using in vitro disease models to understand the role of CD73 and adenosine signaling in mechanisms regulating vascular calcification and vessel remodeling.</td>
</tr>
<tr>
<td>Vanderpool</td>
<td>Rebecca</td>
<td>PhD</td>
<td>Postdoctoral Fellow</td>
<td>Dr. Vanderpool is conducting studies related to the pathobiology of the coupling between the right ventricle and the pulmonary circulation and engaging in studies in human subjects as well as in preclinical models of cardiopulmonary disease.</td>
</tr>
<tr>
<td>Vasametti</td>
<td>Sathish</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Vasametti studies the role of macrophages in myocardial infarction triggered insulin resistance.</td>
</tr>
<tr>
<td>Yu</td>
<td>Qiujun</td>
<td>MD, PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Yu is working on novel roles of long-noncoding RNA in pulmonary hypertension and molecular mechanics of mitochondrial metabolism in pulmonary vascular biology.</td>
</tr>
</tbody>
</table>

**Terminated Post Docs—Fiscal Year 2015-2016**

<table>
<thead>
<tr>
<th>Employee Last Name</th>
<th>Employee First Name</th>
<th>Degree Code</th>
<th>Current Title</th>
<th>Summary of activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bienes Martinez</td>
<td>Raquel</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Bienes Martinez is working on molecular cues that control vascular overgrowth in the lung and that promote damage to heart valves.</td>
</tr>
<tr>
<td>Brands</td>
<td>Judith</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Brands' overall goal is to understand the pathogenesis of Idiopathic Pulmonary Fibrosis. Using animal models of lung fibrosis including bleomycin and the gammaherpesvirus infection and in vitro analyses of type II alveolar epithelial cells and alveolar macrophages to unveil molecular mechanisms involved in the host response to injury and repair.</td>
</tr>
<tr>
<td>Lai</td>
<td>Yen-Chun “Charly”</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Lai is studying the effect and the underlying mechanism of nitrite on metabolic syndrome and pulmonary venous hypertension associated with metabolic syndrome.</td>
</tr>
<tr>
<td>Kobir</td>
<td>SM Ahasan</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Kobir is working on novel roles of HIPPO proteins MST1 and MST2 in pulmonary hypertension and benefits of mTOR kinase inhibitors to reverse experimental pulmonary hypertension and right heart hypertrophy in rats.</td>
</tr>
<tr>
<td>Meijles</td>
<td>Daniel</td>
<td>PhD</td>
<td>Postdoctoral Associate</td>
<td>Dr. Meijles is investigating the role of stem cells in pulmonary hypertension-associated plexiform lesion formation or vascular adventitial vasa vasorum development in atherosclerosis and/or systemic hypertension.</td>
</tr>
<tr>
<td>Rogers</td>
<td>Natasha</td>
<td>MD, PhD</td>
<td>Postdoctoral Scholar</td>
<td>Dr. Rogers is testing the role of the CD47/thrombospondin-1 axis in the pathogenesis of kidney disease and immune cell function.</td>
</tr>
<tr>
<td>Sparacino-Watkins</td>
<td>Courtney</td>
<td>PhD</td>
<td>Postdoctoral Scholar</td>
<td>Dr. Sparacino-Watkins is studying the kinetic properties of nitrite reduction to nitric oxide.</td>
</tr>
</tbody>
</table>
PUBLICATIONS

High Impact Publications


Despite numerous reports implicating NADPH oxidases (Nox) in the pathogenesis of many diseases, precise regulation of this family of professional reactive oxygen species (ROS) producers remains unclear. A unique member of this family, Nox1 oxidase, functions as either a canonical or hybrid system using Nox organizing subunit 1 (NoxO1) or p47phox, respectively, the latter of which is functional in vascular smooth muscle cells (VSMC). In this manuscript, we identify critical requirement of ezrin-radixin-moesin-binding phosphoprotein 50 (EBP50; aka NHERF1) for Nox1 activation and downstream responses. Superoxide (O2•-) production induced by angiotensin II (AngII) was absent in mouse EBP50 KO VSMC vs. WT. Moreover, ex vivo incubation of aortas with AngII showed a significant increase in O2•- in WT but not EBP50 or Nox1 nulls. Similarly, lipopolysaccharide (LPS)-induced oxidative stress was attenuated in femoral arteries from EBP50 KO vs. WT. In silico analyses confirmed by confocal microscopy, immunoprecipitation, proximity ligation assay, FRET, and gain-/loss-of-function mutagenesis revealed binding of EBP50, via its PDZ domains, to a specific motif in p47phox. Functional studies revealed AngII-induced hypertrophy was absent in EBP50 KO, and in VSMC overexpressing EBP50, Nox1 gene silencing abolished VSMC hypertrophy. Finally, ex vivo measurement of lumen diameter in mouse resistance arteries exhibited attenuated AngII-induced vasoconstriction in EBP50 KO vs. WT. Taken together, our data identify EBP50 as a previously unidentified regulator of Nox1 and support that it promotes Nox1 activity by binding p47phox. This interaction is pivotal for agonist-induced smooth muscle ROS, hypertrophy, and vasoconstriction and has implications for ROS-mediated physiological and pathophysiological processes.


Mitochondrial DNA (mtDNA) mutations are a common cause of primary mitochondrial disorders, and have also been implicated in a broad collection of conditions, including aging, neurodegeneration, and cancer. Prevalent among these pathogenic variants are mtDNA deletions, which show a strong bias for the loss of sequence in the major arc between, but not including, the heavy and light strand origins of replication. Because individual mtDNA deletions can accumulate focally, occur with multiple mixed breakpoints, and in the presence of normal mtDNA sequences, methods that detect broad-spectrum mutations with enhanced sensitivity and limited costs have both research and clinical applications. In this study, we evaluated semi-quantitative and digital PCR-based methods of mtDNA deletion detection using double-stranded reference templates or biological samples. Our aim was to describe key experimental assay parameters that will enable the analysis of low levels or small differences inmtDNA deletion load during disease progression, with limited false-positive detection. We determined that the digital PCR method significantly improved mtDNA deletion detection sensitivity through absolute quantitation, improved precision and reduced assay standard error.

Abstract: Dysregulation of vascular stiffness and cellular metabolism occurs early in pulmonary hypertension (PH). However, the mechanisms by which biophysical properties of the vascular extracellular matrix (ECM) relate to metabolic processes important in PH remain undefined. In this work, we examined cultured pulmonary vascular cells and various types of PH-diseased lung tissue and determined that ECM stiffening resulted in mechanoactivation of the transcriptional coactivators YAP and TAZ (WWTR1). YAP/TAZ activation modulated metabolic enzymes, including glutaminase (GLS1), to coordinate glutaminolysis and glycolysis. Glutaminolysis, an anaplerotic pathway, replenished aspartate for anabolic biosynthesis, which was critical for sustaining proliferation and migration within stiff ECM. In vitro, GLS1 inhibition blocked aspartate production and reprogrammed cellular proliferation pathways, while application of aspartate restored proliferation. In the monocrotaline rat model of PH, pharmacologic modulation of pulmonary vascular stiffness and YAP-dependent mechanotransduction altered glutaminolysis, pulmonary vascular proliferation, and manifestations of PH. Additionally, pharmacologic targeting of GLS1 in this model ameliorated disease progression. Notably, evaluation of simian immunodeficiency virus-infected nonhuman primates and HIV-infected subjects revealed a correlation between YAP/TAZ-GLS activation and PH. These results indicate that ECM stiffening sustains vascular cell growth and migration through YAP/TAZ-dependent glutaminolysis and anaplerosis, and thereby link mechanical stimuli to dysregulated vascular metabolism. Furthermore, this study identifies potential metabolic drug targets for therapeutic development in PH.


The discovery of novel globins in diverse organisms has stimulated intense interest in their evolved function, beyond oxygen binding. Globin X (GbX) is a protein found in fish, amphibians, and reptiles that diverged from a common ancestor of mammalian hemoglobins and myoglobins. Like mammalian neuroglobin, GbX was first designated as a neuronal globin in fish and exhibits six-coordinate heme geometry, suggesting a role in intracellular electron transfer reactions rather than oxygen binding. Here, we report that GbX to our knowledge is the first six-coordinate globin and the first globin protein apart from hemoglobin, found in vertebrate RBCs. GbX is present in fish erythrocytes and exhibits a nitrite reduction rate up to 200-fold faster than human hemoglobin and up to 50-fold higher than neuroglobin or cytoglobin. Deoxygenated GbX reduces nitrite to form nitric oxide (NO) and potently inhibits platelet activation in vitro, to a greater extent than hemoglobin. Fish RBCs also reduce nitrite to NO and inhibit platelet activation to a greater extent than human RBCs, whereas GbX knockdown inhibits this nitrite-dependent NO signaling. The description of a novel, six-coordinate globin in RBCs with dominant electron transfer and nitrite reduction functionality provides new insights into the evolved signaling properties of ancestral heme-globins.


In sickle-cell disease, a point mutation in the β-globin chain causes haemoglobin to polymerise within erythrocytes during deoxygenation, altering red blood cell rheology and causing haemolysis. Improvements in health infrastructure, preventive care, and clinical treatments have reduced the morbidity and mortality of sickle-cell disease in developed countries. However, as these patients live longer, the chronic effects of sustained haemolytic anaemia and episodic vaso-occlusive events drive the development of end-organ complications. Cardiopulmonary organ dysfunction and chronic kidney injury have a large effect on morbidity
and premature mortality, and typically accelerate in the second decade of life. These processes culminate in the development of pulmonary hypertension, left ventricular diastolic heart disease, dysrhythmia, and sudden death. In this Series paper, we review the mechanisms, clinical features, and epidemiology of major cardiovascular complications in patients with sickle-cell disease and discuss how screening and intervention could reduce their incidence.


The prevention of organ damage and early death in young adults is a major clinical concern in sickle cell disease (SCD). However, mechanisms that control adult progression of SCD during the transition from adolescence are poorly defined with no cognate prophylaxis. Here, we demonstrate in a longitudinal cohort of homozygous SCD (SS) mice a link between intravascular hemolysis, vascular inflammation, lung injury, and early death. Prophylactic Nrf2 activation in young SS mice stabilized intravascular hemolysis, reversed vascular inflammation, and attenuated lung edema in adulthood. Enhanced Nrf2 activation in endothelial cells in vitro concurred with the dramatic effect on vascular inflammation in the mice. BM chimeric SS mice lacking Nrf2 expression in nonhematopoietic tissues were created to dissect the role of nonerythroid Nrf2 in SCD progression. The SS chimeras developed severe intravascular hemolysis despite having erythroid Nrf2. In addition, they developed premature vascular inflammation and pulmonary edema and died younger than donor littermates with intact nonhematopoietic Nrf2. Our results reveal a dominant protective role for nonhematopoietic Nrf2 against tissue damage in both erythroid and nonerythroid tissues in SCD. Furthermore, we show that prophylactic augmentation of Nrf2-coordinated cytoprotection effectively impedes onset of the severe adult phenotype of SCD in mice.


RATIONALE: Enhanced proliferation and impaired apoptosis of pulmonary arterial vascular smooth muscle cells (PAVSMC) are key pathophysiological components of pulmonary vascular remodeling in pulmonary arterial hypertension (PAH). OBJECTIVES: To determine the role and therapeutic relevance of HIPPO signaling in PAVSMC proliferation/apoptosis imbalance in PAH. MEASUREMENTS AND MAIN RESULTS: Immunohistochemical and immunoblot analyses demonstrated that the HIPPO central component large tumor suppressor 1 (LATS1) is inactivated in small remodeled pulmonary arteries (PAs) and distal PAVSMC in idiopathic PAH. Molecular- and pharmacology-based analyses revealed that LATS1 inactivation and consequent up-regulation of its reciprocal effector Yes-associated protein (Yap) were required for activation of mammalian target of rapamycin (mTOR)-Akt, accumulation of HIF1α, Notch3 intracellular domain and β-catenin, deficiency of pro-apoptotic Bim, increased proliferation and survival of human PAH PAVSMC. LATS1 inactivation and up-regulation of Yap increased production and secretion of fibronectin that up-regulated integrin-linked kinase 1 (ILK1). ILK1 supported LATS1 inactivation, and its inhibition re-activated LATS1, down-regulated Yap, suppressed proliferation, and promoted apoptosis in PAH, but not control PAVSMC. PAVSM in small remodeled PAs from rats and mice with SU5416/hypoxia-induced pulmonary hypertension (PH) showed down-regulation of P-LATS1 and overexpression of ILK1. Treatment of mice with selective ILK inhibitor Cpd22 at days 22-35 of SU5416/hypoxia exposure restored LATS1 signaling and reduced established pulmonary vascular remodeling and PH. CONCLUSIONS: These data report inactivation of HIPPO/LATS1, self-supported via Yap-fibronectin-ILK1 signaling loop, as a novel mechanism of self-sustaining proliferation and apoptosis resistance of PAVSMC in PAH and suggest a new potential target for therapeutic intervention.

BACKGROUND: Pulmonary hypertension associated with heart failure with preserved ejection fraction (PH-HFpEF) is an increasingly recognized clinical complication of metabolic syndrome. No adequate animal model of PH-HFpEF is available, and no effective therapies have been identified to date. A recent study suggested that dietary nitrate improves insulin resistance in endothelial nitric oxide synthase null mice, and multiple studies have reported that both nitrate and its active metabolite, nitrite, have therapeutic activity in preclinical models of pulmonary hypertension. METHODS AND RESULTS: To evaluate the efficacy and mechanism of nitrite in metabolic syndrome associated with PH-HFpEF, we developed a 2-hit PH-HFpEF model in rats with multiple features of metabolic syndrome attributable to double-leptin receptor defect (obese ZSF1) with the combined treatment of vascular endothelial growth factor receptor blocker SU5416. Chronic oral nitrite treatment improved hyperglycemia in obese ZSF1 rats by a process that requires skeletal muscle SIRT3-AMPK-GLUT4 signaling. The glucose-lowering effect of nitrite was abolished in SIRT3-deficient human skeletal muscle cells, and in SIRT3 knockout mice fed a high-fat diet, as well. Skeletal muscle biopsies from humans with metabolic syndrome after 12 weeks of oral sodium nitrite and nitrate treatment (IND#115926) displayed increased activation of SIRT3 and AMP-activated protein kinase. Finally, early treatments with nitrite and metformin at the time of SU5416 injection reduced pulmonary pressures and vascular remodeling in the PH-HFpEF model with robust activation of skeletal muscle SIRT3 and AMP-activated protein kinase. CONCLUSIONS: These studies validate a rodent model of metabolic syndrome and PH-HFpEF, suggesting a potential role of nitrite and metformin as a preventative treatment for this disease.


Myocardial infarction (MI) leads to a systemic surge of vascular inflammation in mice and humans, resulting in secondary ischemic complications and high mortality. We show that, in ApoE(-/-) mice with coronary ligation, increased sympathetic tone up-regulates not only hematopoietic leukocyte production but also plaque endothelial expression of adhesion molecules. To counteract the resulting arterial leukocyte recruitment, we developed nanoparticle-based RNA interference (RNAi) that effectively silences five key adhesion molecules. Simultaneously encapsulating small interfering RNA (siRNA)-targeting intercellular cell adhesion molecules 1 and 2 (Icam1 and Icam2), vascular cell adhesion molecule 1 (Vcam1), and E- and P-selectins (Sele and Selp) into polymeric endothelial-avid nanoparticles reduced post-MI neutrophil and monocyte recruitment into atherosclerotic lesions and decreased matrix-degrading plaque protease activity. Five-gene combination RNAi also curtailed leukocyte recruitment to ischemic myocardium. Therefore, targeted multigene silencing may prevent complications after acute MI.


Nitric oxide (NO) is a key signalling molecule in the cardiovascular, immune, and central nervous systems, and crucial steps in the regulation of NO bioavailability in health and disease are well characterized. Although early approaches to therapeutically modulate NO bioavailability failed in clinical trials, an enhanced understanding of fundamental subcellular signalling has enabled a range of novel therapeutic approaches to be identified. These include the identification of: new pathways for enhancing NO synthase activity; ways to amplify the nitrate-nitrite-NO pathway; novel classes of NO-donating drugs; drugs that limit NO metabolism through effects on reactive oxygen species; and ways to modulate downstream phosphodiesterases and...
soluble guanylyl cyclases. In this Review, we discuss these latest developments, with a focus on cardiovascular disease.

**Peer-Reviewed Publications: 2014, 2015, 2016**


http://www.vmi.pitt.edu


Gladwin MT, O'Donnell CP. Training pulmonary researchers to span the bench-to-bedside "Valley of Death". Am J Respir Crit Care Med. 2014 Nov 1;190(9):977-80.


Straub, AC, Butcher JT, Billaud M, Mutchler SM, Artamonov MV, Nguyen AT, Johnson T, Best, AK, Miller MP, Palmer LA, Columbus L, Somlyo AV, Le, TH, Isakson BE. Hemoglobin α/ eNOS coupling at myoendothelial junctions is


ACKNOWLEDGEMENTS

This report was produced by the Office of Academic Affairs of the Department of Medicine.

EDITOR
Nichole Radulovich MEd CRA
Senior Administrator

PROJECT MANAGER AND COPY EDITOR
Jimette Gilmartin
Project Coordinator

COPY EDITOR
Vicki Gamble
Project Coordinator

Jane-Ellen Robinet
Communications Coordinator

GRAPHIC DESIGN AND PHOTOGRAPHY
Gerri Acri
Administrative Coordinator
University of Pittsburgh
Department of Medicine

1218 Scaife Hall
3550 Terrace Street
Pittsburgh, PA 15261

Over 16,300 Admissions
Over 67 Clinical Locations
Over 1.2 Million wRVUs
Over 143.4 Million in Research Dollars
Over 240,000 Outpatient Visits
100+ "Pittsburgh Best Docs"
205 Residents
151 Fellows