“I am absolutely delighted to report that our Council of Early Career Investigators in Imaging Program (CECI²) continues to flourish in this new virtual landscape! Founded in 2014, this program educates ambitious, early career faculty on the importance of advocacy and its impact on their research. This Council’s opportunities with staff at the National Institutes of Health (NIH) and Capitol Hill ensure these investigators have the tools they will need to advocate effectively for their own research. Over the years, alumni of CECI² have gone on to receive significant grant funding, including their first R01s, K awards, and industry grants, and to accept multiple academic promotions. The 2021 Council is the largest we’ve seen so far, with more than 30 members. To date, CECI² brings together 119 researchers for opportunities in both networking and education and is truly strengthening the future of imaging research and its potential advocates.” — Hedvig Hricak, MD, PhD, Dr(hc), Academy CIBR Chair

The Academy for Radiology & Biomedical Imaging Research created the Council of Early Investigators in Imaging (CECI²) in 2014 to recognize the achievements of researchers in the early phases of their careers and to engage them in our advocacy for research funding. Academic departments who are members of the Academy’s Academic Council are eligible to nominate an individual from their department to be considered as a member of the Academy CECI².

After nearly two years of engagement, the Academy is delighted to highlight members of the class of 2020-21. Boasting an initial class size of 35, these investigators were sponsored by a combination of the Academy, Academic Departments, and Imaging Societies. Having been the largest class to date, we are thrilled to see this program’s continued growth.

Navigating the unprecedented situation presented by the COVID-19 pandemic, the Academy redesigned how to engage the class. Taking advantage of available virtual landscape, the Academy implemented a variety of unique digital opportunities and events including virtual trainings on advocacy and NIH, nearly 20 “Ask Me Anything” discussions with leaders from industry, academia, and government agencies, as well as a variety of organic networking opportunities designed to connect these investigators over the course of this two-year program. The dedication shown by these investigators cannot be understated. Having stayed connected with the Academy, and one another, even with challenges like the cancellation of two in-person events and a final shift to digital platforms for their capstone activities, this class’s engagement was well beyond anything we have seen before.
Throughout their two year experience, this class of CECI² were afforded the unique opportunity to virtually connect with leaders across the Academy’s diverse community of imaging stakeholders. Through our “Ask Me Anything” happy hours, these investigators engaged with leaders and innovators from academia, industry, patient advocacy networks and professional imaging societies, and were able to ask detailed questions in an intimate environment.

Thank you to all of the below discussion leaders who gave their time, and expertise, so generously to this group of early career investigators.

May 4, 2020
Bruce Tromberg, PhD, Director, NIBIB  
re: NIBIB and grant opportunities

May 8, 2020
Mitch Schnall, MD, PhD, Chair of Radiology, University of Pennsylvania  
re: "Wine about specific aims page" A discussion on specific aims pages and how to improve

May 15, 2020
Hedvig Hricak, MD, PhD, Dr (hc), Chair of Radiology, MSKCC  
re: Professional development and balancing career trajectories

May 22, 2020
Cheri Canon, MD, Chair of Radiology, UAB  
re: Women in leadership, building a research program, and balancing career and family

May 29, 2020
Elizabeth Krupinski, PhD, Vice Chair, Emory University  
re: Grant Funding Myth Busters

June 12, 2020
Etta Pisano, MD, Academy Secretary/Treasurer, ACR, Harvard  
re: Need and opportunities to maintain a work-life balance

June 26, 2020
Academy CECI2 Co-Chairs  
Alexander Goehler, MD, PhD, Executive Director, Precision Medicine Imaging  
Sam Galgano, MD, PhD, Assistant Professor, Department of Radiology, University of Alabama, Birmingham  
re: "the creation of an Academy CECI² Mock Study Section"

July 10, 2020
Roderic Pettigrew, MD, PhD, Chief Executive Officer of Engineering Health, Executive Dean for Engineering Medicine, Texas A&M  
re: His experience and career trajectory as Founding Director of the NIBIB

July 24, 2020
Ruth Carlos, MD, MS, Academy Vice President, Professor of Radiology, Division of Abdominal Imaging, Michigan Medicine  
re: Careers in health science research and policy, as well as scholarly publications and editorship

August 28, 2020
Lucy Spalluto, MD, Associate Professor, Vanderbilt University Medical Center  
re: NIH Loan Repayment Program

September 25, 2020
Janet Eary, MD, Associate Director, Cancer Imaging Program, NCI  
re: NCI Cancer Imaging Program (CIP)

October 29, 2020
Bradford Wood, MD, Academy NIH Liaison, Senior Investigator, Center for Interventional Oncology, NIH Clinical Center  
re: Various professional topics including IP, grantsmanship, and teamwork

January 28, 2021
Aisling McDonough, Senior Legislative Aide (health issues), Congresswoman Anna Eshoo’s Office (D-CA)  
re: Health policy and advocacy on Capitol Hill

February 11, 2021
Daniel Sullivan, MD, Chair Emeritus, Department of Radiology at Brigham and Women’s Hospital, Former Academy President & Chair of CIBR  
re: AI’s role in radiology

February 24, 2021
Bharti Khurana, MD, Program Director, Emergency Radiology Fellowship, Director, Emergency Musculoskeletal Radiology, Brigham & Women’s Hospital, Assistant Professor, Harvard Medical School  
re: AI’s role in radiology and its impact on identifying intimate partner violence

March 10, 2021
Steven Seltzer, MD, Chair Emeritus, Department of Radiology at Brigham and Women’s Hospital, Former Academy President & Chair of CIBR  
re: His professional trajectory & opportunities for early career investigators

March 31, 2021
Matthew Lungren, MD, MPH, Associate Professor Med Center Line, Radiology Pediatric Radiology Stanford University, Academy CECI², Class of 2017  
re: AI’s role in radiology
To see and use the Academy’s library of advocacy resources please visit: https://www.acadrad.org/academy-advocacy-resources/


CECI² ADVOCACY

VIRTUAL MEETINGS ON CAPITOL HILL

Throughout the weeks following our in-person MedTech 2021 events in Washington, D.C., the Academy coordinated virtual advocacy days for all members of our 2020-21 CECI² class, who elected to participate.

Since the beginning of October, nearly 30 investigators have met with almost 40 congressional offices, from 14 different states, detailing their research efforts and the importance of robust funding for the National Institutes of Health (NIH), as well as Institutes and Centers with dedicated imaging research portfolios.

In preparation for these meetings, the Academy’s Senior Director of Government Affairs and Strategic Initiatives, Michael Heintz, led multiple “Advocacy 101” trainings to better prepare CECI² for their meetings with Congress. With a little help from a School House Rock classic, and the chance to practice their “elevator pitches”, these investigators were able to become some of our most enthusiastic advocates yet.

FULL LIST OF CONGRESSIONAL MEETINGS

*Indicates the group met the member of Congress.

<table>
<thead>
<tr>
<th>MEMBER’S OFFICE</th>
<th>STATE</th>
<th>PARTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sen Michael Bennett</td>
<td>CO</td>
<td>D</td>
</tr>
<tr>
<td>Sen Marsha Blackburn</td>
<td>TN</td>
<td>R</td>
</tr>
<tr>
<td>Sen Rich Blumenthal</td>
<td>CT</td>
<td>D</td>
</tr>
<tr>
<td>Sen Roy Blunt</td>
<td>MO</td>
<td>R</td>
</tr>
<tr>
<td>Sen Maria Cantwell</td>
<td>WA</td>
<td>D</td>
</tr>
<tr>
<td>Sen Bob Casey</td>
<td>PA</td>
<td>D</td>
</tr>
<tr>
<td>Rep Jim Cooper</td>
<td>TN</td>
<td>D</td>
</tr>
<tr>
<td>Rep Diana DeGette</td>
<td>CO</td>
<td>D</td>
</tr>
<tr>
<td>Sen Dianne Feinstein</td>
<td>CA</td>
<td>D</td>
</tr>
<tr>
<td>Rep Debbie Dingell</td>
<td>MI</td>
<td>D</td>
</tr>
<tr>
<td>*Rep Anna Eshoo</td>
<td>CA</td>
<td>D</td>
</tr>
<tr>
<td>Rep Dwight Evans</td>
<td>PA</td>
<td>D</td>
</tr>
<tr>
<td>Rep Bob Good</td>
<td>VA</td>
<td>R</td>
</tr>
<tr>
<td>Sen Bill Hagerty</td>
<td>TN</td>
<td>R</td>
</tr>
<tr>
<td>Sen Josh Hawley</td>
<td>MO</td>
<td>R</td>
</tr>
<tr>
<td>Sen Tim Kaine</td>
<td>VA</td>
<td>D</td>
</tr>
<tr>
<td>Rep Ted Lieu</td>
<td>CA</td>
<td>D</td>
</tr>
<tr>
<td>Rep Carolyn Maloney</td>
<td>NY</td>
<td>D</td>
</tr>
<tr>
<td>Rep Kathy Manning</td>
<td>NC</td>
<td>D</td>
</tr>
<tr>
<td>Sen Ed Markey</td>
<td>MA</td>
<td>D</td>
</tr>
<tr>
<td>Sen Chris Murphy</td>
<td>CT</td>
<td>D</td>
</tr>
<tr>
<td>Sen John Ossoff</td>
<td>GA</td>
<td>D</td>
</tr>
<tr>
<td>Sen Alejandro Padilla</td>
<td>CA</td>
<td>D</td>
</tr>
<tr>
<td>Sen Gary Peters</td>
<td>MI</td>
<td>D</td>
</tr>
<tr>
<td>Rep David Price</td>
<td>NC</td>
<td>D</td>
</tr>
<tr>
<td>Rep Terri Sewell</td>
<td>AL</td>
<td>D</td>
</tr>
<tr>
<td>Sen Debbie Stabenow</td>
<td>MI</td>
<td>D</td>
</tr>
<tr>
<td>Sen Thom Tillis</td>
<td>NC</td>
<td>R</td>
</tr>
<tr>
<td>Sen Pat Toomey</td>
<td>PA</td>
<td>D</td>
</tr>
<tr>
<td>Sen Tommy Tuberville</td>
<td>AL</td>
<td>R</td>
</tr>
<tr>
<td>Sen Elizabeth Warren</td>
<td>MA</td>
<td>D</td>
</tr>
<tr>
<td>Rep Nikema Williams</td>
<td>GA</td>
<td>D</td>
</tr>
</tbody>
</table>
IN ALL, THE CECI² CLASS HAD NEARLY 60 MEETINGS ACROSS 10 INSTITUTES.

A special thank you to all the Institutes and Centers who made their program officers and scientific programming staff available to meet with this group of early career investigators.

Even with the switch to a digital platform, these early career investigators were able to meet not only with leadership from NIBIB, but also with NIH Program Officers from Institutes and Centers of their choosing. These meetings offered an introduction those administering NIH imaging research funding. Academy staff scheduled individual meetings, or made direct introductions, to connect CECI² with NIH program officers to discuss research ideas and current opportunities. These meetings and introductions are also facilitated as a way for CECI² to establish connections for future inquiries and a continued dialogue concerning the NIH research grant process.

The CECI² group met with NIBIB’s Krishna Kandarpa, MD, PhD, Director of Research Sciences and Strategic Directions and Acting Director, Division of Applied Science and Technology Grantsmanship. In addition, Tatjana Atanasijevic, PhD, Scientific Program Manager at NIBIB, offered different insights on grantsmanship. Drs. Kandarpa and Atanasijevic welcomed our CECI² and were able to outline the current funding streams available within NIBIB in detail. Along with this presentation, both remained engaged throughout a very informative Q&A session, giving our CECI² the uncommon opportunity to ask questions of these grant experts live.

Thank you to the following IC’s:

- National Institute of Biomedical Imaging & Bioengineering (NIBIB)
- National Cancer Institute (NCI)
- National Institute of Neurological Disorders and Stroke (NINDS)
- National Institute on Aging (NIA)
- National Heart Lung and Blood Institute (NHLBI)
- National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)
- Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD)
- National Institute on Minority Health and Health Disparities (NIMHD)
- National Eye Institute (NEI)
- National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)
"It was great to meet like-minded researchers at a similar stage of their career, and great to hear that we all face very similar questions with regards to ongoing projects, future funding and career planning. Moreover, it was very valuable to meet so many department chairs in a relaxed, casual setting where conversations seemed more impactful and personal. Finally, I was very interested hearing in more detail about the plans around the founding of ARPA-H, which may hold great potential for biomedical imaging research."

ANTON BECKER, MD, PHD
Assistant Attending,
Memorial Sloan Kettering Cancer Center

“While I suspected that interacting with senior members of the Academy would be of high value, I could not have anticipated the level of impact that my classmates would have on my thought processes and career path. Though we’ve never met in person, [co-CECI²] Jana Ivanidze and I have collaborated by twitter, email, text, phone and even RSNA podcast over the past year and a half. We’ve encouraged each other to keep submitting grant applications, apply for positions and write papers. I’m incredibly grateful for this peer mentorship that I’ve received.”

ASHLEY ELIZABETH PROSPER, MD
Assistant Professor of Radiology,
Section Chief of Cardiothoracic Imaging,
University of California, Los Angeles

“One of the most crucial aspects for moving exciting research from the lab to patients is safety studies. Increased funding could support these studies, which when budgets are limited are not always funded. Additionally, the field of imaging is really undergoing an expansion, which means that some great research may not get funded. More funding means more people working on potentially paradigm-shifting work. Funding, especially for high-risk high-reward research has the potential to return much more than the money invested.”

BENJAMIN LARIMER, PHD
Assistant Professor,
University of Alabama at Birmingham
“The Academy and the CECI program have provided me with a unique opportunity to communicate the importance of Radiology and Biomedical research and advocate for national funding. Importantly, the CECI program has immense value for enhancing training of early career investigators. Through virtual seminars and socials, I have been able to connect with and learn from researchers and leaders in the field of radiology, with discussions ranging from career and leadership skills to grant application processes. My experience as a part of the CECI class has been invaluable for my future career in biomedical imaging.”

AISLING CHANEY, PHD
Postdoctoral Scholar, The James Lab, Molecular Imaging Program Stanford, Department of Radiology, Stanford University

“The cost of doing research continues to outpace the funding available to supplement the research. As a grant reviewer, I am asked, on average, to review 10-12 grants in any given period. Usually, 5-6 of these are high quality, innovative science; however, current funding levels support 1, maybe 2, of these actually get funded. The remaining proposals simply get triaged for a resubmission, where these resubmissions are now competing against other new, high quality, innovative projects. The availability of more funds allows more of these innovative projects to be funded at the outset of application (if the quality supports that decision) rather than deferring to the next review cycle and perpetuating this stagnant, unnecessary delay in advancing science.

When I was a graduate student, not even 12 years ago, the pay lines for some Institutes were on the order of 25-30%; now, some of these agency’s fund at the 6-10% pay line. This is obviously a complex issue with many contributing factors, but the current rate of funding is unsustainable and will undoubtedly (and frankly, already does) deter talent from innovation and discovery through science.”

KIEL NEUMANN, PHD
Assistant Professor and Director of Radiochemistry, University of Virginia
ALISON POUCH, PHD
Assistant Professor of Radiology and Bioengineering
University of Pennsylvania

Dr. Pouch’s currently has a mentored research scientist development grant (K01 mechanism) funded by the National Heart Lung and Blood Institute (NHLBI). This funding supports the development of image guidance for surgical treatment of adult congenital heart disease. Her lab’s hope is that advances in pre-operative image guidance will improve planning and risk stratification for complex surgical procedures and thereby decrease the number of major cardiac operations patients need to undergo in their lifetime.

ADAM WANG, PHD
Assistant Professor
Stanford University

Dr. Wang is currently working under a NIBIB Trailblazer award (R21). This funding works to make x-ray images quantitative and improve the diagnostic and image-guidance value of x-ray-based imaging, e.g., for lung cancer screening or liver cancer treatment (trans arterial chemoembolization).

MEGAN LIPFORD, PHD
Assistant Professor
Wake Forest School of Medicine

Dr. Lipford is co-investigator or key personnel on several grants funded by the NIH. One has the goal of developing a new imaging bio-marker of A-beta clearance from the cerebrospinal fluid as an indicator of Alzheimer’s risk. This biomarker would add to the array of biomarkers used to assess risk for and severity of Alzheimer’s Disease leading to better understanding of the disease and potentially earlier diagnosis.

BENJAMIN LARIMER, PHD
Assistant Professor
University of Alabama at Birmingham

Dr. Larimer received an R01 from the National Cancer Institute. This funding supported the development of a novel cancer imaging agent, and it is now supporting clinical translation of the agent and testing in cancer patients. Ultimately, his goal is to provide oncologists and patients with rapid information on whether a treatment is working so that patients can get the best therapy as quickly as possible.

ASHLEY ELIZABETH PROSPER, MD
Assistant Professor of Radiology, Section Chief of Cardiothoracic Imaging
University of California, Los Angeles

Dr. Prosper has received an R01 from the National Cancer Institute. This grant will work to define the precision and reproducibility of several diagnostic cardiac MRI biomarkers obtained during a fast, free-breathing cardiac MRI exam for boys with Duchenne Muscular Dystrophy (DMD); and to define the cardiac-specific genotype-phenotype correlation via outlier analysis. It will develop and validate multiparametric diagnostic models of lung cancer in the broader landscape of all at-risk individuals with indeterminate pulmonary nodules in the range of intermediate risk of 6-25 mm.

ADAM WANG, PHD
Assistant Professor
Stanford University

Dr. Wang is currently working under a NIBIB Trailblazer award (R21). This funding works to make x-ray images quantitative and improve the diagnostic and image-guidance value of x-ray-based imaging, e.g., for lung cancer screening or liver cancer treatment (trans arterial chemoembolization).

MEGAN LIPFORD, PHD
Assistant Professor
Wake Forest School of Medicine

Dr. Lipford is co-investigator or key personnel on several grants funded by the NIH. One has the goal of developing a new imaging bio-marker of A-beta clearance from the cerebrospinal fluid as an indicator of Alzheimer’s risk. This biomarker would add to the array of biomarkers used to assess risk for and severity of Alzheimer’s Disease leading to better understanding of the disease and potentially earlier diagnosis.

BENJAMIN LARIMER, PHD
Assistant Professor
University of Alabama at Birmingham

Dr. Larimer received an R01 from the National Cancer Institute. This funding supported the development of a novel cancer imaging agent, and it is now supporting clinical translation of the agent and testing in cancer patients. Ultimately, his goal is to provide oncologists and patients with rapid information on whether a treatment is working so that patients can get the best therapy as quickly as possible.

ASHLEY ELIZABETH PROSPER, MD
Assistant Professor of Radiology, Section Chief of Cardiothoracic Imaging
University of California, Los Angeles

Dr. Prosper has received an R01 from the National Cancer Institute. This grant will work to define the precision and reproducibility of several diagnostic cardiac MRI biomarkers obtained during a fast, free-breathing cardiac MRI exam for boys with Duchenne Muscular Dystrophy (DMD); and to define the cardiac-specific genotype-phenotype correlation via outlier analysis. It will develop and validate multiparametric diagnostic models of lung cancer in the broader landscape of all at-risk individuals with indeterminate pulmonary nodules in the range of intermediate risk of 6-25 mm.

LINKS TO ACADEMY CECI² RESOURCES:
