

16th Annual

RESPIRATORY DISEASE Young Investigators' Forum



Final Outcomes Summary

This program was supported by an educational grant from AstraZeneca Pharmaceuticals LP

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RESPIRATORY DISEASE Young Investigators' Forum



56096393	16 th Annual Respiratory Disease Young Investigators' Forum		
<p>Educational Objectives: Identify new areas of respiratory research that offer new inroads to effective therapies and treatment; Discuss research study designs that may improve on current approaches to respiratory research; Evaluate strengths and weaknesses of the research presented and incorporate peer/expert feedback effectively to enhance data presentations; Review key strategies for career development as a physician scientist; Describe overall process and important components of securing grants to support research</p>			
<p>Intended Audience: Pulmonary, allergy and immunology fellows and junior faculty who are beginning their research careers.</p>	<p>Actual Reach: 25 young investigators; 9 expert faculty; 3 research advisors</p>	<p>Modality/# Activities: Three day live virtual forum consisting of junior faculty/fellow presentations, expert faculty panel, and structured feedback</p>	
<p>Program Location: Virtual</p>	<p>Dates (Virtual Activity): October 8-10, 2020</p>	<p>Relevant Links: N/A</p>	
<p>Outcomes Levels: Moore's Level 1, 2, 3 and 4</p>	<p>Outcomes Planning: Pre-test and post-test; program evaluation</p>		
<p>Summary: The 16th Annual Respiratory Disease Young Investigators' Forum aimed to connect young investigators with expert faculty and peers in the respiratory disease field to improve research methodologies, enhance presentation and communication skills, and stimulate an academic career in respiratory disease and allergy research. The meeting was successfully implemented from October 8-10, 2020, with 96% of participants reporting that they would recommend this program to their colleagues.</p>			

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Program Overview

The 16th Annual Respiratory Disease Young Investigators' Forum, a live independent medical education activity accredited by National Jewish Health (NJH), was held virtually October 8-10, 2020. The Forum is designed to enable **pulmonary, allergy and immunology fellows and junior faculty** to present their research and interact with expert faculty in order to improve research methodologies and presentation skills, enhance communication in the field of respiratory disease and allergy, develop relationships with faculty mentors, assist in translating laboratory research into useful bedside application, and stimulate an academic career in respiratory disease and allergy research. Due to safety concerns and travel restrictions due to COVID-19, the program was held virtually for the first time ever. In its 16th year, the Forum continues to prove to be a valuable and impactful annual event for fellows and junior faculty who are beginning their research careers. The theme for the 2020 Forum was "Science Never Stops"!



"The program did a great job of moving to remote platform (which I am sure was not easy!) I really appreciated that everyone went the extra mile to make sure that we benefitted from the virtual platform."

- 2020 Young Investigator



Program Design

The content of the program was based on basic science and clinical research in the field of respiratory disease submitted by young investigators, who compete for acceptance into the program and then serve as the program presenting faculty. The program enabled a diverse group of 25 fellows enrolled in fellowship programs such as allergy, respiratory tract disease, or pulmonary medicine, to present the results of their basic science or clinical research to an experienced expert faculty panel.

“This had an intimacy and collegial feel that is very hard to achieve at larger conferences. Access to expert faculty is superior. I felt the faculty really cared about the participants and their success.”

-2020 Young Investigator

The program consisted of:

- ✓ Personalized feedback and coaching from presentation advisors during rehearsals
- ✓ Clinical and scientific junior faculty presentations
- ✓ Small group discussions and mentoring
- ✓ Networking with peer leaders and expert faculty
- ✓ An expert faculty panel providing real time feedback
- ✓ Expert faculty presentations on topics relevant to junior faculty
- ✓ Q&A

Learning Objectives

1. Discuss new and emerging areas of respiratory research that offer new inroads to effective therapies and treatment
2. Establish mentoring and collegial relationships to support scientific endeavors and career advancement
3. Evaluate the strengths and weaknesses of peer research presentations
4. Incorporate peer/expert faculty feedback effectively to enhance research presentations
5. Discuss key strategies for career development as a physician scientist
6. Describe comprehensive process for securing grant support for research



Pictured: Co-Chair and Expert Faculty Member Janet Lee, MD



Young Investigator Awards

The top presenting faculty with the highest scores in both Basic Science and Clinical Research were presented with a plaque and awarded an educational grant to be used toward future research or to attend a national respiratory meeting such as the AAAAI, ATS, or CHEST. The grant is provided to the recipient's institution for distribution to the recipient according to policies. The young investigator with the highest evaluation scores from her peers was also recognized with an award. To recognize the achievement of the attending fellows, all 25 were presented with an award certificate indicating participation at the Forum. A CME certificate will also be provided by NJH.

Basic Science Research

First Place – **Dinah Foer, MD**
(Brigham and Women's)



Clinical Research

First Place –
Bhavika Kaul, MD
(University of California San Francisco)





Young Investigator Awards

Basic Science
Research

Second Place –
Aartik Sarma, MD
(University of
California San
Francisco)



Basic Science
Research

Third Place –
Jennifer Krall, MD
(Wake Forest)



Peer Award
Jenna McNeill, MD

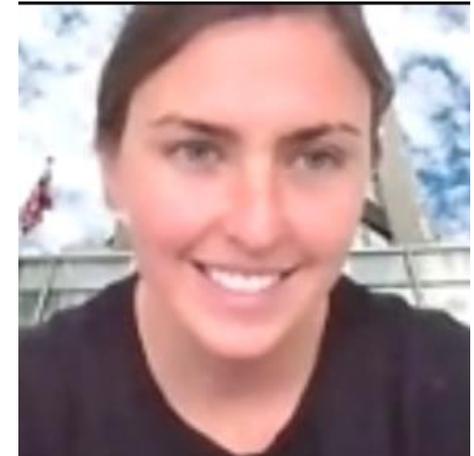
Clinical Research

Second Place –
Stefanie Mason, MD
(Brigham and
Women's)



Clinical Research

Third Place –
Rebecca Israel, MD
(Massachusetts
General)



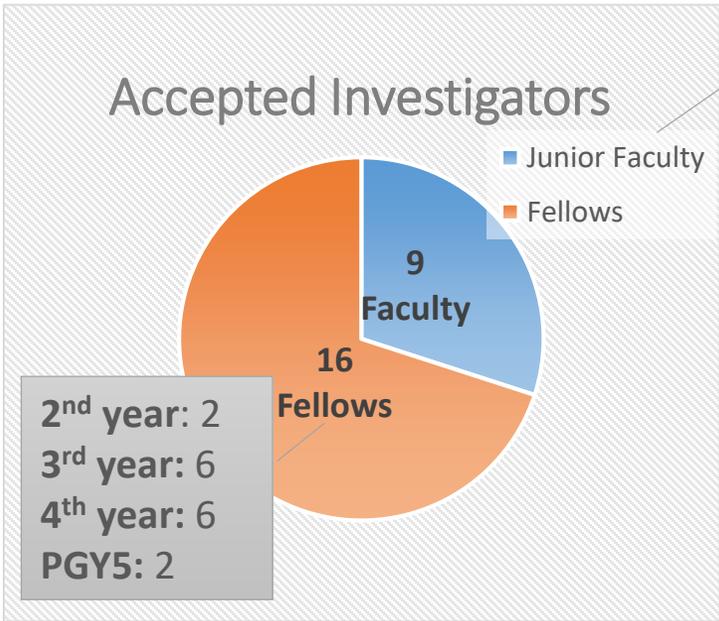


Dashboard: Activity Impact

25	
Abstracts	
Received/Accepted/Attendees	
Expert Faculty	9
Research Advisors	3

"I learned a lot from the presentations and questions of other peers and faculty. It was also very helpful to present my research to this type of audience with a strict time limit and learning how to prepare and address Q/A. Good practice for the future. Also hopeful that the faculty and maybe peer connections will serve to be fruitful in the future."

-Young Investigator, 2020



1st Year Faculty Position: 7
 2nd Year Faculty Position: 2

96%

would recommend program to colleagues

88% activity positively influenced interest

in pursuing a career as a physician-scientist

- Research Disease States**
- Asthma
 - COPD
 - Cystic Fibrosis
 - Genetics of Airway Disease
 - ILD
 - Pulmonary Vascular Disease

Expert Faculty



Janet S. Lee, MD (Program Co-Chair)
Professor of Medicine
Professor of Environmental Occupational Health
Director, Acute Lung Injury Center of Excellence
UPMC Chair in Acute Lung Injury
University of Pittsburgh
Pittsburgh, PA



Barry J. Make, MD (Program Co-Chair)
Professor of Medicine
Division of Pulmonary, Critical Care and Sleep Medicine
Co-Director, COPD Program
Director, Pulmonary Rehabilitation and Respiratory Care
National Jewish Health
Denver, CO



Neil Aggarwal, MD
Chief, Lung Biology and Disease Branch
Division of Lung Diseases
National Heart, Lung, and Blood Institute, NIH
Bethesda, MA

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William Busse, MD
Professor of Medicine
Division of Allergy & Immunology
University of Wisconsin-Madison, School of
Medicine and Public Health
Madison, WI



Marie Egan, MD
Professor of Pediatrics (Respiratory) and of Cellular
And Molecular Physiology
Director, Cystic Fibrosis Center
Vice Chair for Research, Department of Pediatrics
Yale School of Medicine
New Haven, CT



Christopher H. Goss, MD
Professor of Medicine and Pediatrics
Co-executive Director of the Cystic Fibrosis
Therapeutics Development Network
University of Washington
Seattle, WA

Expert Faculty



Maria Padilla, MD

Director, Advanced Lung Disease/Interstitial Lung Disease Program
Professor of Medicine
Pulmonary, Critical Care and Sleep Medicine
Mount Sinai-National Jewish Respiratory Institute
New York, NY



Stokes Peebles, MD

Professor of Medicine
Division of Allergy, Pulmonary and Critical Care Medicine
Elizabeth and John Murray Chair in Medicine
Training Program Director, Allergy Immunology Fellowship Program
Professor of Pathology, Microbiology and Immunology
Vanderbilt University Medical Center
Nashville, TN

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Irina Petrache, MD

Professor of Medicine
Division of Pulmonary, Critical Care & Sleep Medicine
Chief, Division of Pulmonary, Critical Care & Sleep Medicine
Wollowick Chair in COPD Research
National Jewish Health
Denver, CO

“This meeting was very well organized by the staff at National Jewish and provided an excellent forum to view cutting edge research by fellows-in-training and junior faculty. The contacts made will be very valuable for future collaborations.”

- Stokes Peebles, MD (1st year as Expert Faculty)

Research Advisors



Laura E. Crotty Alexander, MD

Associate Professor of Medicine
Division of Pulmonary Critical Care & Sleep Medicine
University of California at San Diego
Staff Physician, VA San Diego Healthcare System
San Diego, CA



Anthony N. Gerber, MD, PhD

Professor of Medicine
Department of Medicine
Division of Pulmonary, Critical Care & Sleep Medicine
Department of Biomedical Research
National Jewish Health
Denver, CO



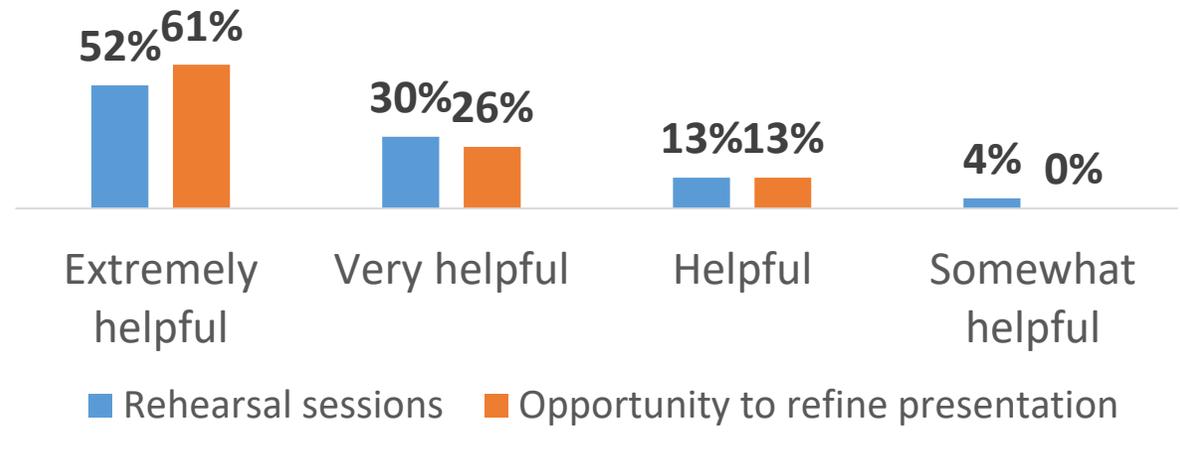
Jennifer L. Taylor-Cousar, MD, MSCS, ATSF

Medical Director, Clinical Research Services
Co-Director, Adult Cystic Fibrosis Program
Director, Cystic Fibrosis Therapeutics Development Center Adult Program
Professor of Medicine and Pediatrics
Division of Pulmonary, Critical Care & Sleep Medicine
Division of Pediatric Pulmonary Medicine
National Jewish Health
Denver, CO

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Young Investigators Rate Value of Rehearsal Session/Opportunity to Refine Presentation



“It was so thrilling to be invited back to the YIF as a Research Advisor. I remember fondly flying to Scottsdale, AZ, to participate in the YIF as a fellow, and thus was determined to participate, to give this years' fellows the best experience possible during these trying times.”

- Dr. Laura Crotty Alexander (Research Advisor)



Young Investigators

Nawar Al Nasrallah, MD (BS) - *Indiana University School of Medicine*
DNA Repair Quantification in Lung diseases: Assay Development

Anuja Bandyopadhyay, MD (CR) - *Indiana University School of Medicine*
Antenatal Corticosteroids Decrease Forced Vital Capacity in Infants Born Fullterm

Daniel Belz, MD, MPH (CR) - *Johns Hopkins University*
Former and Current Smokers Living in High Poverty Neighborhoods Experience Heightened Adverse Respiratory Impacts of Ambient Ozone Exposure: an Analysis of SPIROMICS AIR.

Matthew Camiolo, MD, PhD (BS) - *University of Pittsburgh*
Receptor ACE2 and Coincident Host Response Signature in Asthma Portends Increased Risk for COVID-19

Dinah Foer, MD (BS) - *Brigham and Women's Hospital*
The glucagon-like peptide 1 axis in platelet-mediated airway inflammation



Young Investigators

Samir Gautam, MD, PhD (BS) - *Yale University*

Chitinase-3-like-1 regulates neutrophil cell death during pseudomonal pneumonia

Rebecca Anna Gersten, MD (CR) - *Johns Hopkins University*

Incidence, Timing, and Setting Palliative of Care Referrals in Patients with Interstitial Lung Disease

Victoria Habet, DO (BS) - *Yale University*

Pulmonary Immune Profiling in Critically Ill Children with Viral Bronchiolitis

Rebecca Arielle Israel, MD (CR) - *Massachusetts General Hospital*

Endobronchial optical coherence tomography accurately diagnoses microscopic usual interstitial pneumonitis and clinical idiopathic pulmonary fibrosis

Bhavika Kaul, MD (CR) - *University of California, San Francisco*

Epidemiology and Risk Factors Associated with Idiopathic Pulmonary Fibrosis Among U.S. Veterans



Young Investigators

Maksim Korotun, MD (CR) – *Northwell Health*

Optimization of Hypoglossal Nerve Stimulation (HGNS) For Obstructive Sleep Apnea (OSA) With Ultrasound Assessment of Tongue Movement

Jennifer Krall, MD (BS) - *Wake Forest University*

Immune Cell Kinetics in Acute Lung Injury-Associated Skeletal Muscle Wasting and Recovery

Julia Maheshwari, MD (CR) - *University of California, San Francisco*

Sarcopenia Is Associated With Frailty In Lung Transplant Candidates

Parevi Majmudar, MD (CR) - *Riley Hospital for Children at Indiana University Health*

Outpatient Treatment of Lower Respiratory Tract Infections in Children with Tracheostomy -- A Single Institution Experience

Stefanie Mason, MD (CR) - *Brigham and Women's Hospital*

Associations between muscle mass, exacerbations, and mortality in ever-smokers

Jenna McNeill, MD (CR) - *Massachusetts General Hospital*

Obesity-related inflammation association with lung function and pulmonary vascular response to exercise

***(BS) Basic Science**

***(CR) Clinical Research**



Young Investigators

Kaveh Moghbeli, MD (BS) - *University of Pittsburgh Medical Center*

cAMP-dependent Signaling and Gene Expression is Suppressed in Alveolar Macrophages of Severe Asthmatics by Prolonged Beta-agonist Exposure with Implications for Immune Function

Christopher Mosher, MD (CR) - *Duke University Medical Center*

Risk Factors for Mortality in Lung Transplant Recipients 65 and Older: A Retrospective Cohort Study of 5,815 patients in the Scientific Registry of Transplant Recipients

Sweta Patel, MD (CR) - *Duke University Medical Center*

Household air pollution exposure is associated with alterations of the upper respiratory microbiome

Seyed Mohammad Pourshahid, MD, MPH (CR) - *Virginia Tech Carilion School of Medicine*

Development of home-based Pulmonary rehabilitation program using activity tracking devices with focus on self-efficacy

Aartik Sarma, MD (BS) - *University of California San Francisco*

Next generation sequencing in tracheal aspirates identifies distinct immune responses in molecular phenotypes of the acute respiratory distress syndrome



Young Investigators

Neha Solanki, MD (CR) - *Cleveland Clinic*

Air Quality Data for Nitrogen Dioxide and Pediatric Hospital Admission Rates in Selected Cities

Laura Spece, MD, MS (CR) - *University of Washington*

First do no harm: provider knowledge of medication effects and prescribing behavior for COPD

Daniel Isaiah Sullivan, MD (BS) - *University of Pittsburgh Medical Center*

Development of a Human In Vitro Model of Telomere-induced Alveolar Epithelial Senescence

Benjamin Wisniewski, MD (BS) - *Nationwide Children's Hospital*

E-Cigarette Exposure Attenuates CFTR Restoration in Cystic Fibrosis Macrophages Treated with Tezacaftor/Ivacaftor

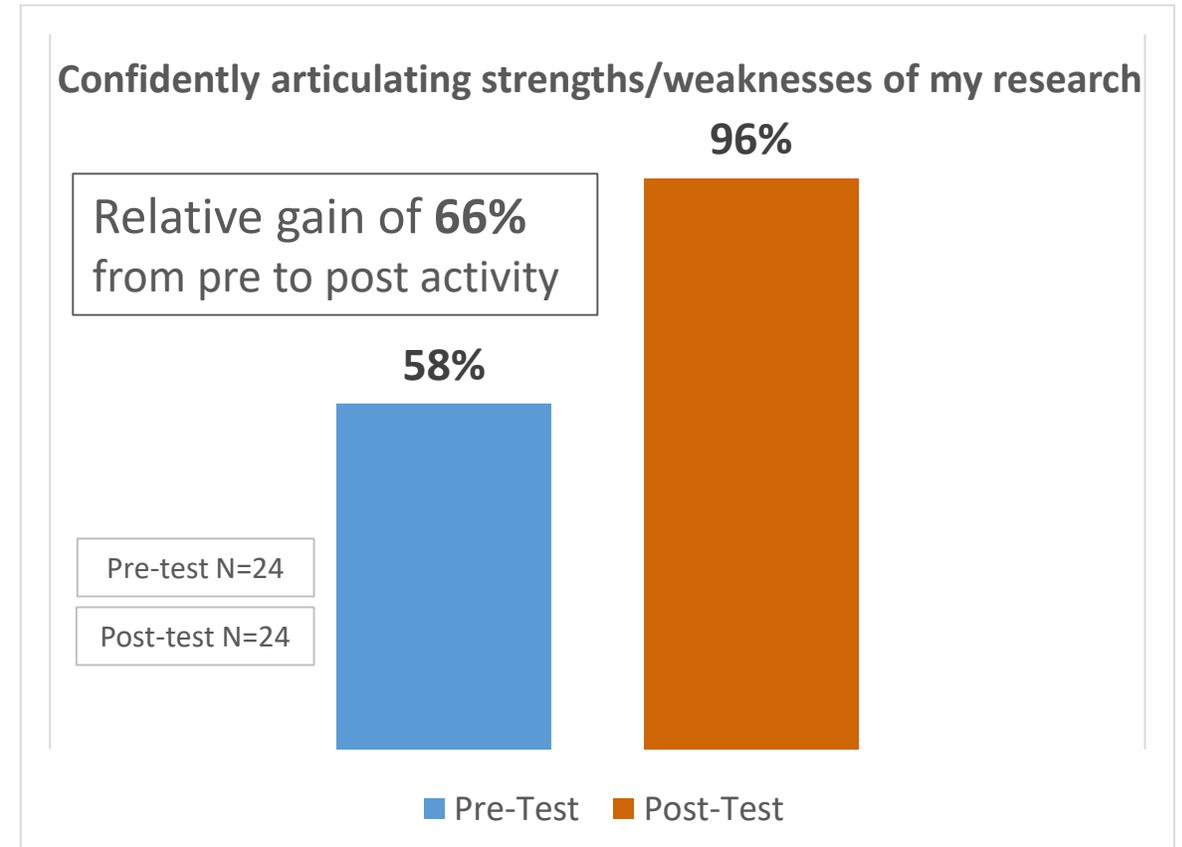
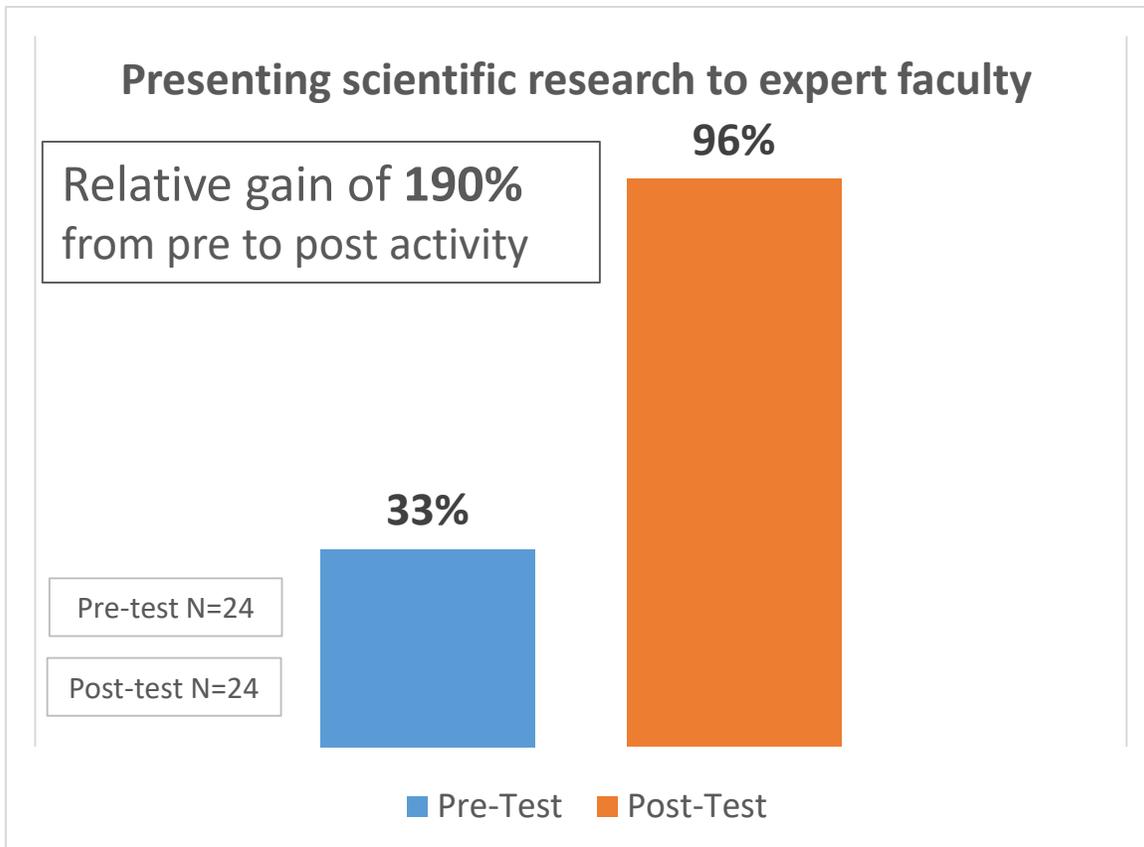
***(BS) Basic Science**

***(CR) Clinical Research**



Pre to Post Activity Evaluation

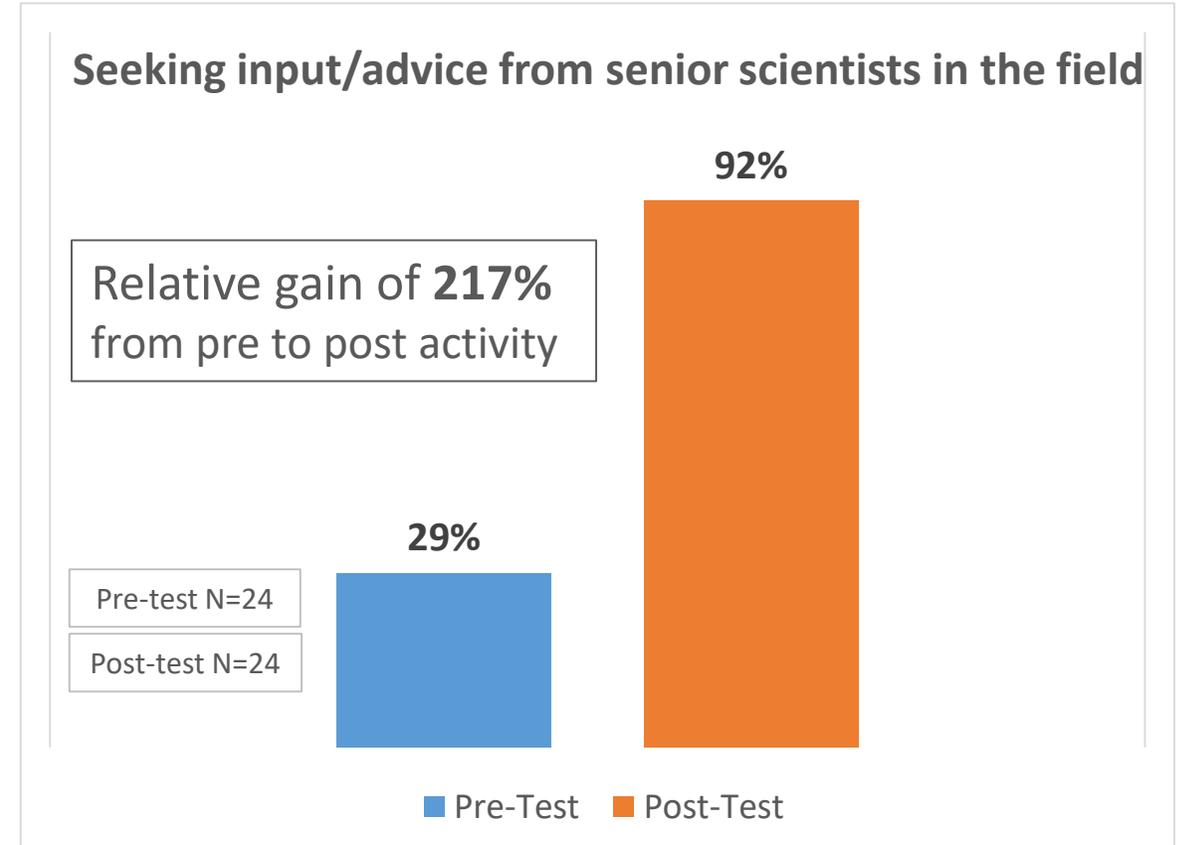
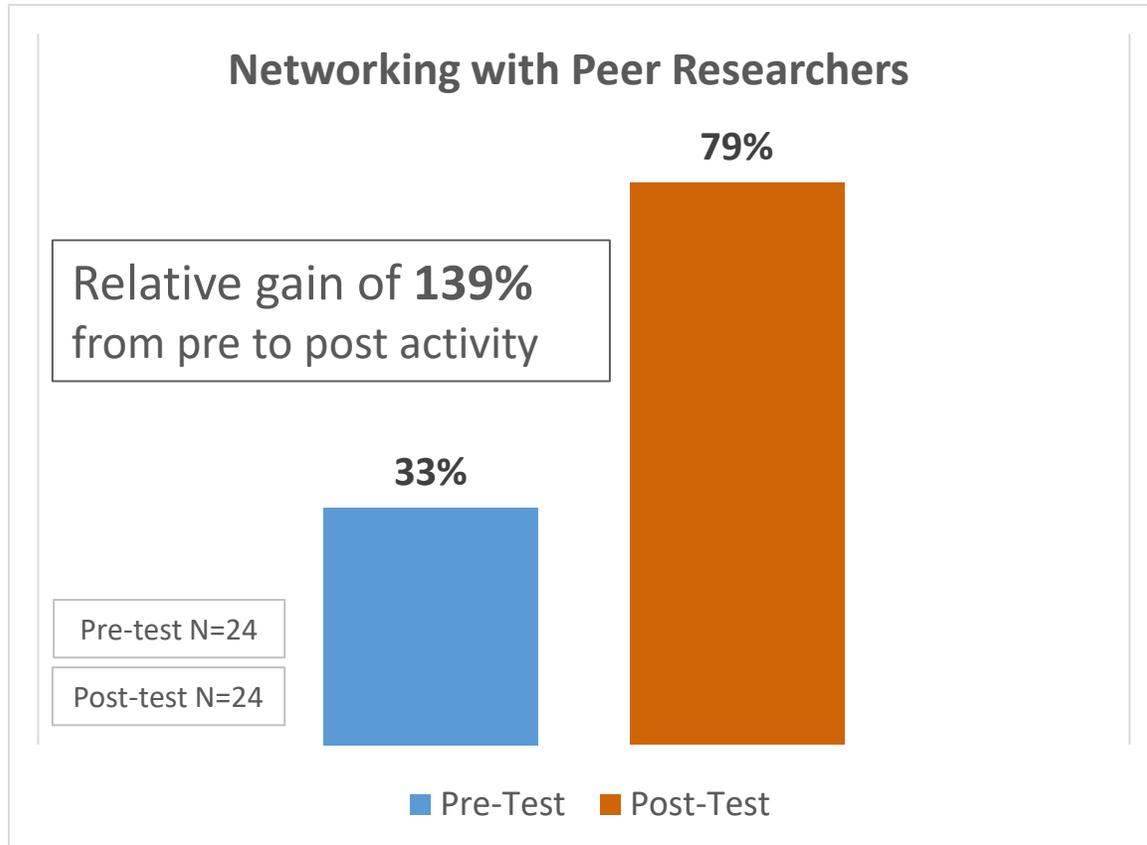
Young Investigators report being “Comfortable” or “Very Comfortable” with:





Pre to Post Activity Evaluation

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Pre to Post Activity Evaluation

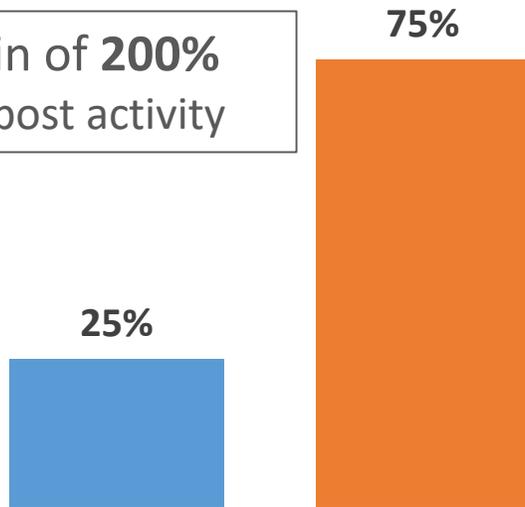
Young Investigators report being “Comfortable” or “Very Comfortable” with:

Identifying the process for securing grant support

Relative gain of **200%**
from pre to post activity

Pre-test N=24

Post-test N=24



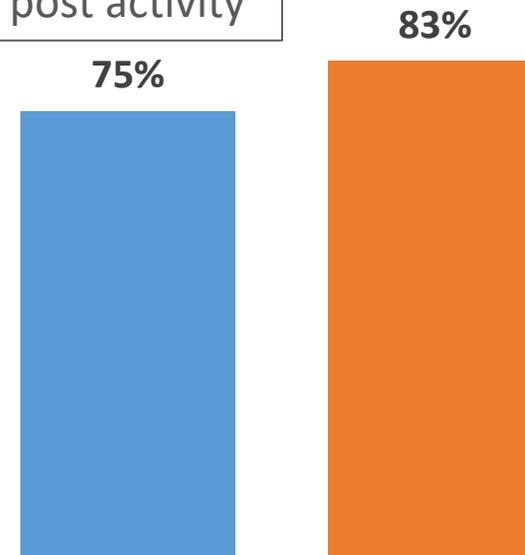
■ Pre-Test ■ Post-Test

Incorporating peer/expert feedback to enhance presentations

Relative gain of **11%**
from pre to post activity

Pre-test N=24

Post-test N=24

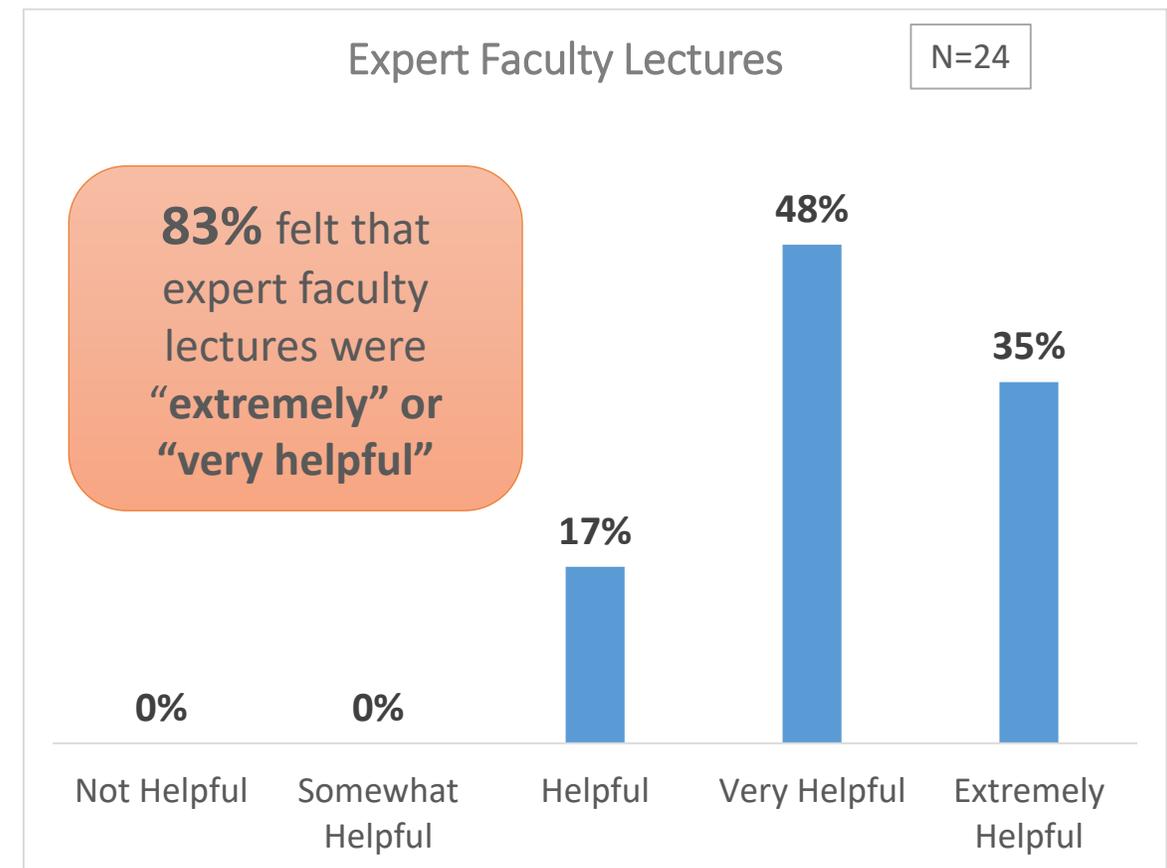
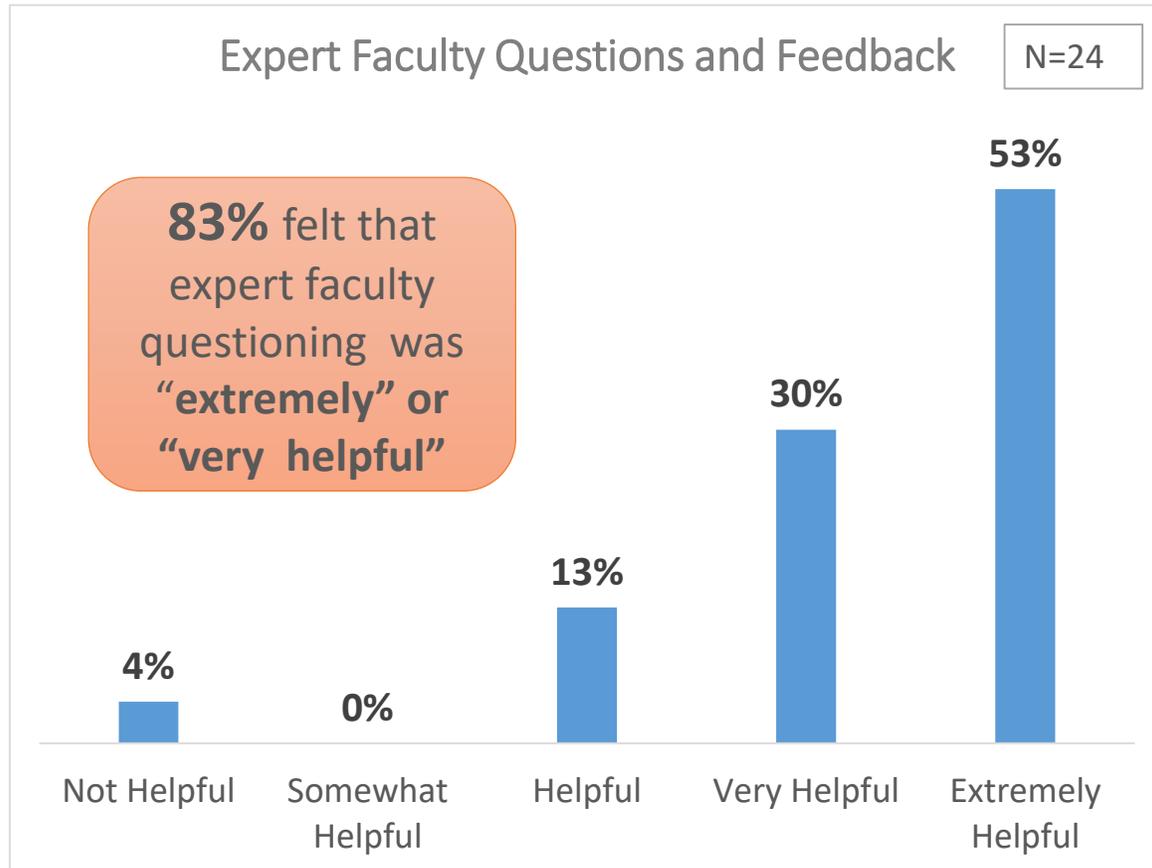


■ Pre-Test ■ Post-Test



Evaluation - Expectations

Young investigators indicate the extent that the following components helped meet their expectations:



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Evaluation Results

“The forum was an excellent opportunity to build community with peers from across the country. Despite transitioning to a virtual conference this year (due to covid-19), the faculty did a remarkable job of fostering engagement and were very generous with their feedback and career advice. The quality and breadth of science was inspiring, and I would highly recommend this forum to future young investigators.”

- 2020 Young Investigator Winner

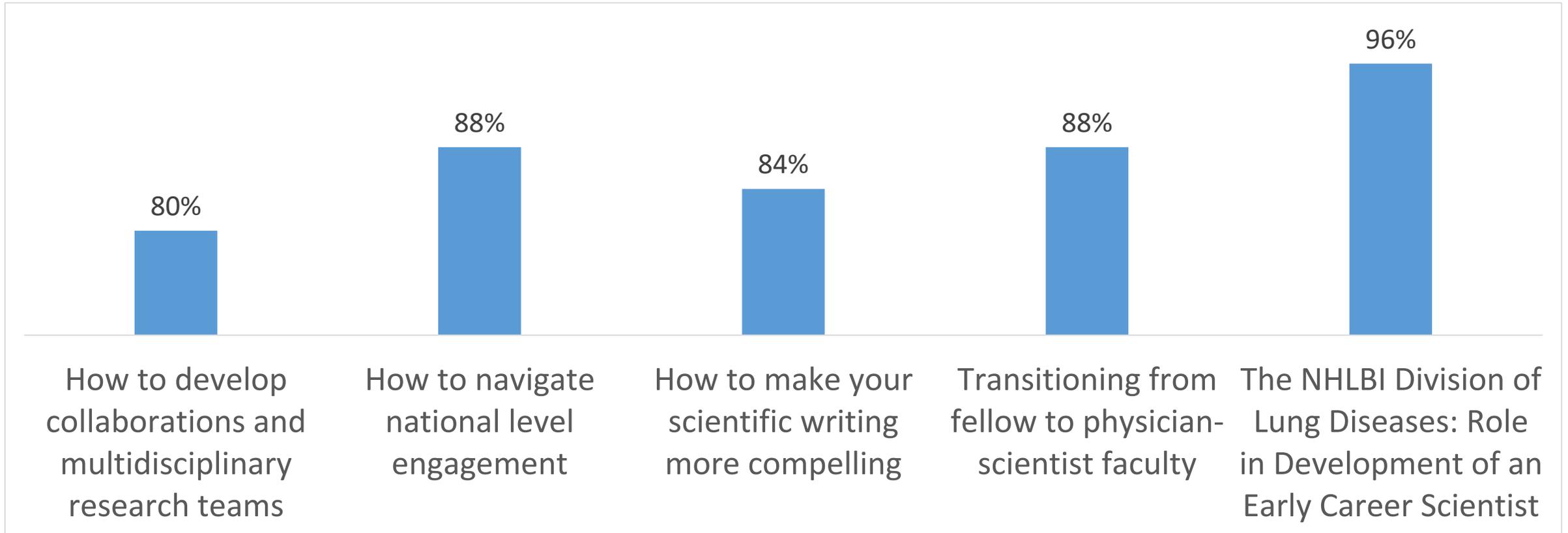




Evaluation – Expert Lectures

Young Investigators rank expert faculty topics from extremely helpful to very helpful:

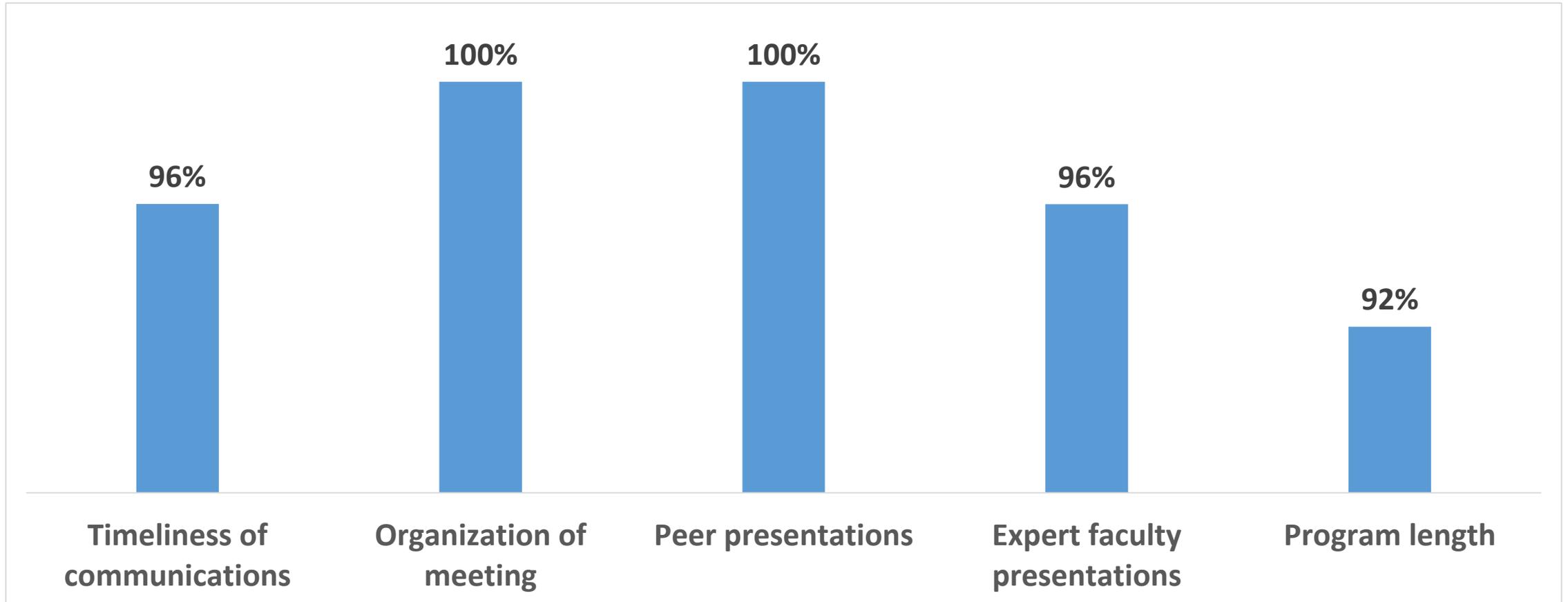
N=24





Evaluation – Overall Program

Young Investigators rank the following program components as “Excellent” to “Good”





Evaluation – Overall Program

- ✓ **100%** reported the material was **presented in an objective manner and free of commercial bias**
- ✓ **100%** reported that the **educational content met the learning objectives**
- ✓ **88%** reported that the **expectations for this forum were met or exceeded**
- ✓ **88%** reported that the **activity positively influenced interest in pursuing a career as a physician scientist**
- ✓ **92%** reported that, in comparison to other professional development activities attended, **this activity was as helpful or more helpful toward meeting professional goals**
- ✓ **86%** reported they would **modify other abstract submissions based on feedback received during this activity**

“This is easily the most useful and impactful conference I have attended.”

- 2020 Young Investigator

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Participant Take Aways

Young Investigators report key take-aways:

“The networking with both young investigators and established researchers in the field.”

“Knowledge about career development as a physician-scientist and invaluable insight into grant writing and timeline of goals tailored to my individual career path.”

“That becoming a physician-scientist is a rewarding endeavor that allows multiple opportunities for collaboration.”

“Importance of presenting ideas in a clear and coherent way that others outside your research specialty will understand.”

“Importance of preparation and mentorship.”

“Funding is the key to success in a research career.”





Intent to Change

Young Investigators report changes they may make in their career trajectory after participating in this activity:

“I will talk to my mentor about applying for an F23 award in the coming year to strengthen my opportunities as a physician-scientist, which is not something that I had considered prior to this forum.”

“I likely will try to pursue smaller grants and collaborate more.”

“Emphasized an increased focus and depth on my own particular research; forcing myself to drill down deeper as opposed to trying to drive numerous projects forward simultaneously.”

“I will start seeking a physician scientist mentor and start to apply for national grant.”

“I think I am more likely to stay in academia than before. I will be very careful about mentorship when I eventually have to leave my current institution.”

“Several milestones were identified during this conference to assist in the transition from fellow to junior faculty (grant specifics, mentorship specifics, tips on collaboration) that I will incorporate into my career path.”



Intent to Change

Young Investigators report a change or changes they may make in clinical practice:

“I will try to look more into the role of GLP-1 agonists in lung disease.”

“Setting research goals every 3 months instead of longer intervals. More actively seek out advice and mentorship regarding research and career.”

“I found the new technology to use ultrasound to diagnosis IPF bronchoscopically to be quite interesting and will look to follow-up on that data as it become available.”

“In my clinical practice I will pay more attention to air quality in my asthmatic patients and evaluate muscle health in my chronically ill patients.”

“The young investigator presentations represented a wide breadth of research topics and techniques. Listening to the presentation made me more aware of the gaps in my knowledge and the areas I should look into in order to enhance patient care. “



Accreditation

NJH is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians. The NJH Office of Professional Education produced and accredited this program and adhered to the updated ACCME guidelines.

NJH designated this activity for **12.75 AMA PRA Category 1 Credits™**.

