

18<sup>TH</sup> ANNUAL

# RESPIRATORY DISEASE Young Investigators' Forum

OCTOBER 6-9, 2022



 **National Jewish  
Health**<sup>®</sup>

# Activity Summary

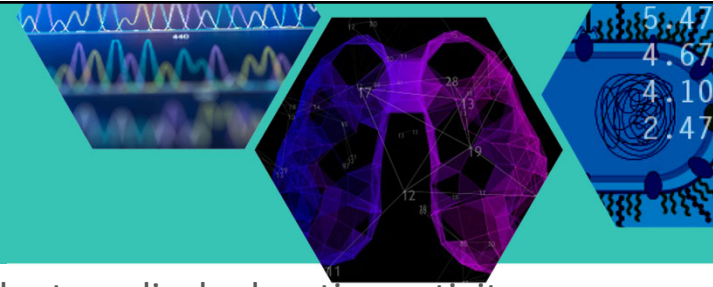
## Final Outcomes Report



<b>70053349</b>	<b>18<sup>th</sup> Annual Respiratory Disease Young Investigators' Forum</b>	
<p><b>Educational Objectives:</b> Discuss new and emerging areas of respiratory research that offer new inroads to effective therapies and treatment; establish mentoring and collegial relationships to support scientific endeavors and career advancement; evaluate the strengths and weaknesses of peer research presentations; incorporate peer/expert faculty feedback effectively to enhance research presentations; discuss key strategies for career development as a physician-scientist; and describe the comprehensive process for securing grant support for research.</p>		
<p><b>Intended Audience:</b> Pulmonary, allergy and immunology fellows and junior faculty who are beginning their research careers.</p>	<p><b>Actual Reach:</b> 29 young investigators; 9 expert faculty; 3 research advisors</p>	<p><b>Modality/# Activities:</b> Three-day live, in-person forum consisting of junior faculty/fellow presentations, expert faculty panel, structured feedback, and mentoring and networking opportunities</p>
<p><b>Program Location:</b>  <b>Hotel Clio, Denver Cherry Creek</b>            150 Clayton Lane            Denver, CO 80206</p>	<p><b>Dates:</b> October 6-9, 2022</p>	<p><b>Relevant Links:</b> N/A</p>
<p><b>Outcomes Levels:</b> Moore's Level 1, 2 and 4</p>		<p><b>Outcomes Planning:</b> Pre-program survey; program evaluation</p>
<p><b>Summary:</b> The 18<sup>th</sup> 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 6-9, 2022, <b>with 100% of evaluation respondents reporting that they would recommend this program to their colleagues.</b></p>		

# Program Overview

## Final Outcomes Report



The 18<sup>th</sup> Annual Respiratory Disease Young Investigators' Forum, a live independent medical education activity accredited by National Jewish Health (NJH), was held in Denver October 6-9, 2022. 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. In its 18<sup>th</sup> 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.

*"This is the best junior faculty development I have participated in to date. I have nothing but awesome things to say and will be recommending this to someone for next year."*

- 2022 Young Investigator



Young investigator **Andi Hudler, MD** chats with Expert Faculty **Jessica Bon, MD** during the Meet the Professor Lunch.



# Program Design

## Final Outcomes Report

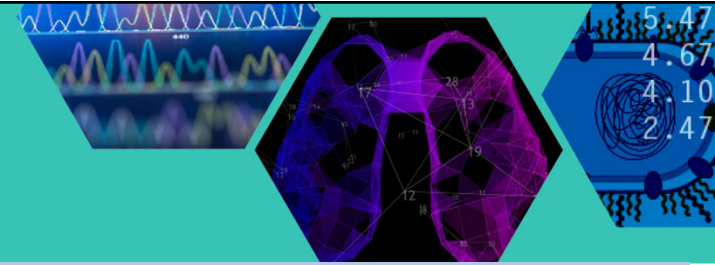
The content of the program was based on basic science and clinical research in the field of respiratory disease submitted by young investigators, who competed for acceptance into the program and then served as the program presenting faculty. The program enabled a diverse group of 29 fellows enrolled in fellowship programs such as allergy, respiratory tract disease, or pulmonary medicine, to present the results of their basic science or clinical research to their peers and an experienced expert faculty panel.

*"The feedback provided by the research coaches and faculty was direct, thoughtful, and provided insight into my project that I had not had prior to this event."*

- 2022 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 career development topics relevant to junior faculty
- ✓ Q&A after each scientific and career development presentation





# Learning Objectives

Final Outcomes Report

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 the comprehensive process for securing grant support for research



**Jesse Roman, MD**  
CEO, Jane & Leonard Korman  
Respiratory Institute

**Career Development Presentation:**  
Finding a Mentor/Sponsor

# Young Investigator Awards

## Final Outcomes Report

The top presenting faculty with the highest scores in both Basic Science and Clinical Research were presented with a plaque and given a monetary award to be used toward future research or to attend a national respiratory meeting such as AAAAI, ATS, or CHEST. The award 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 a peer award. To recognize the achievement of the attending fellows, all 29 were presented with a certificate indicating participation at the Forum. A CME certificate will also be provided by NJH.



**Basic Science**  
**Research**  
First Place –  
**Andi Hudler, MD**  
(University of Colorado)



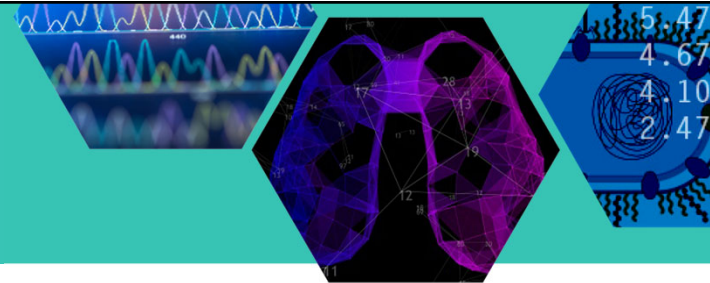
*Dr. Gao also received the  
Peer Award!*

**Clinical Research**  
First Place –  
**Catherine Gao, MD**  
(Northwestern  
University)



# Young Investigator Awards

Final Outcomes Report



## Basic Science Research

Second Place –  
**Kaveh Moghbeli, MD**  
(University of  
Pittsburgh)



## Clinical Research

Second Place –  
**Bowa Lee, MD**  
(University of  
Pittsburgh)



## Basic Science Research

Third Place –  
**Zachary Johnson, DO**  
(Northwestern  
University)



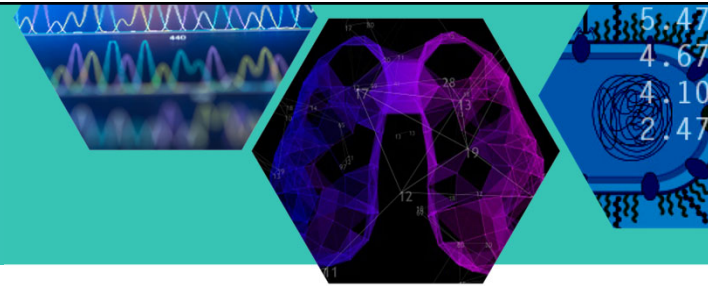
## Clinical Research

Third Place –  
**Gabrielle Liu, MD**  
(Northwestern  
University)



# Dashboard: Activity Impact

Final Outcomes Report



**36 Abstracts Received /  
30 Accepted / 29 Attendees**

\*Note: 1 Investigator could not make it due to a family emergency

**Expert Faculty 9  
Research Advisors 3**

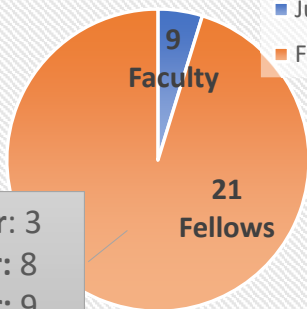
**What is the biggest benefit of participating in the forum?**

“Networking, feedback on presentation, exposure to other active investigative work in a condensed format.”

-Young Investigator, 2022

Accepted Investigators

■ Junior Faculty  
■ Fellows



2<sup>nd</sup> year: 3  
3<sup>rd</sup> year: 8  
4<sup>th</sup> year: 9  
5<sup>th</sup> year: 1

1<sup>st</sup> Year Faculty Position: 5  
2<sup>nd</sup> Year Faculty Position: 4

**100%**

would recommend program to colleagues

**74%** reported activity positively influenced interest

in pursuing a career as a physician-scientist

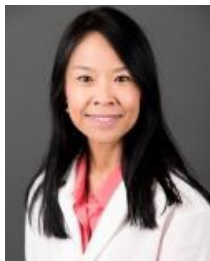
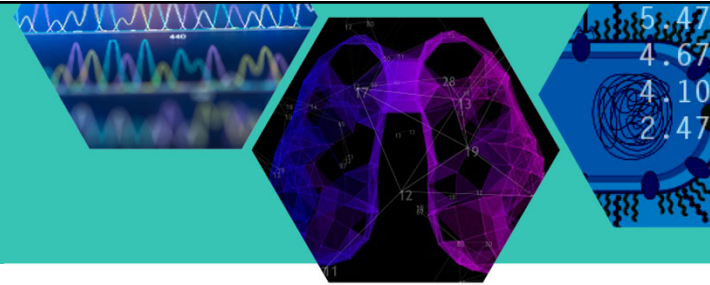
**Research Disease States**

- Asthma
- COPD
- COVID-19
- Cystic Fibrosis
- ILD
- Lung Cancer
- Pulmonary Fibrosis
- Pulmonary Hypertension



# Program Co-Chairs/Expert Faculty

Final Outcomes Report



**Wanda Phipatanakul, MD, MS**

Westonian Endowed Professor of Pediatrics  
Harvard Medical School  
Director, Research Center,  
Asthma, Allergy, Dermatology, Rheumatology,  
Immunology  
Boston Children's Hospital  
Boston, MA

*“I was honored to co-chair the 2022 Young Investigators Forum. It was inspiring interacting with such talented next generation physician-scientists and seeing the fantastic science they are doing. The future is bright.”*

– Wanda Phipatanakul, MD (Program Co-Chair)

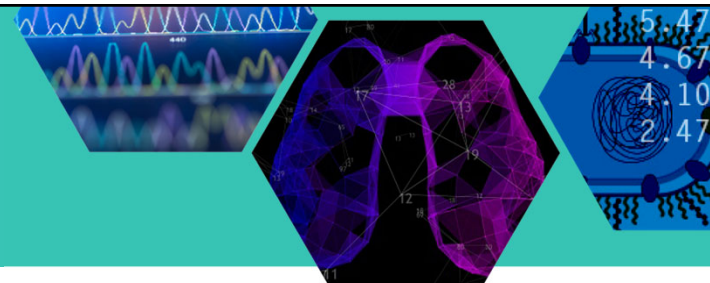


**Jennifer L. Taylor-Cousar, MD, MScS, ATSF** President-elect, Medical Staff  
Medical Director, Clinical Research Services  
Interim Associate Vice President of Diversity, Equity and Inclusion  
Co-Director and CF TDC Director, Adult Cystic Fibrosis Program  
Professor, Departments of Medicine and Pediatrics  
Divisions of Pulmonary, Critical Care & Sleep Medicine and Pediatric Pulmonary Medicine  
Divisions of Pulmonary Sciences and Critical Care Medicine and Pediatric Pulmonology  
University of Colorado Anschutz Medical Campus  
National Jewish Health  
Denver, CO



# Expert Faculty

## Final Outcomes Report



**Jessica Bon, MD, MS**  
Associate Professor of Medicine  
Pulmonary, Allergy and Critical Care Medicine  
Director, Pulmonary and Critical Care Medicine  
Fellowship Program  
University of Pittsburgh School of Medicine  
*Pittsburgh, PA*



**Lisa Maier, MD, MSPH, FCCP**  
Professor  
Director, Division of Env & Occ Health Science Core  
Clinical Lab  
Chief, Division of Environmental & Occupational  
Health Sciences  
National Jewish Health  
*Denver, CO*



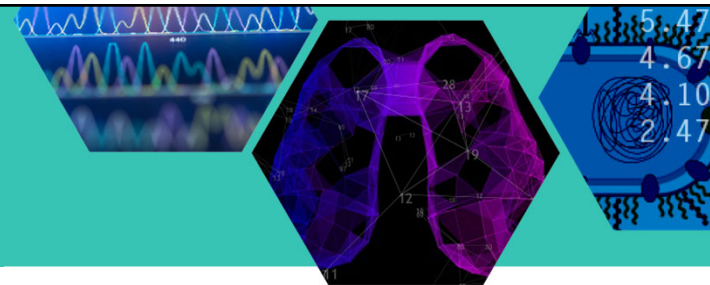
**Ravi Kalhan, MD, MS**  
Professor of Medicine and Preventive Medicine  
Deputy Chief, Division of Pulmonary and Critical Care  
Medicine  
Northwestern University Feinberg School of Medicine  
*Chicago, IL*

Co-Director, Center for Education and Career  
Development  
Northwestern University Clinical and Translational  
Sciences (NUCATS) Institute



# Expert Faculty

## Final Outcomes Report



### **Susanna A. McColley, MD**

Scientific Director, Interdisciplinary Research Partnerships  
Stanley Manne Children's Research Institute  
Associate Director for Child Health and Director, TL1 Program  
Northwestern University Clinical and Translational Sciences Institute  
Editor-in-Chief, Pediatric Pulmonology  
Attending Physician, Pulmonary and Sleep Medicine  
Ann & Robert H. Lurie Children's Hospital of Chicago  
Professor of Pediatrics  
Northwestern University Feinberg School of Medicine  
*Chicago, IL*



### **Jesse Roman, MD**

Ludwig Kind Professor of Medicine  
CEO, Jane & Leonard Korman Respiratory Institute  
Director, Division of Pulmonary, Allergy & CCM  
Lead, Respiratory Service Line, Jefferson Health  
Thomas Jefferson University  
*Philadelphia, PA*



### **Charles Powell, MD, MBA**

CEO Mount Sinai-National Jewish Health Respiratory Institute  
System Chief, Division of Pulmonary, Critical Care & Sleep Medicine  
Janice and Coleman Rabin Professor of Medicine  
Icahn School of Medicine at Mount Sinai  
*New York, NY*



### **Sally Wenzel-Morganroth, MD**

Professor of Medicine and Immunology  
Chair, Dept of Environmental and Occupational Health  
Director, University of Pittsburgh Asthma and Environmental Lung Health Institute  
University of Pittsburgh School of Medicine  
*Pittsburgh, PA*



# Research Advisors

## Final Outcomes Report

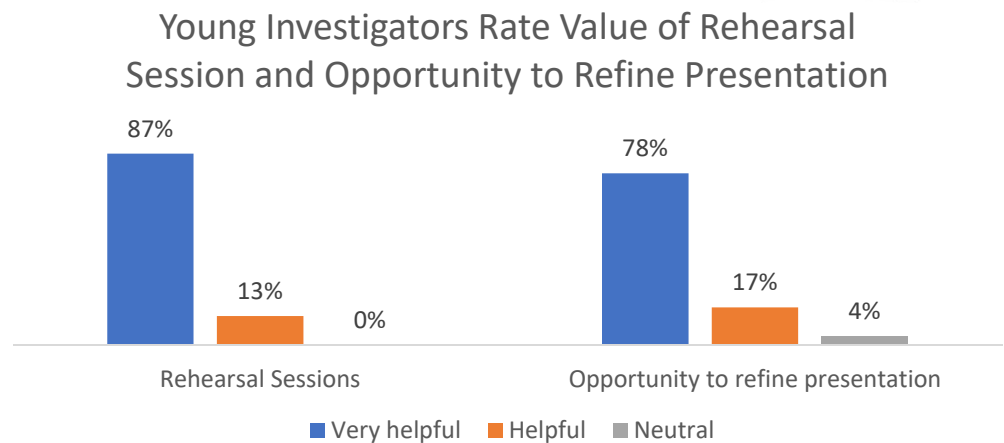


**Laura E. Crotty Alexander, MD**  
Section Chief of Pulmonary and Critical Care  
Veterans Affairs San Diego  
Associate Professor of Medicine  
University of California San Diego  
*San Diego, CA*



**Anthony N. Gerber, MD, PhD**  
Professor of Medicine  
Professor of Immunology and Genomic  
Medicine  
Director of Pulmonary Research  
National Jewish Health  
*Denver, CO*

Professor of Medicine, University of  
Colorado  
Chair, Colorado Air Quality Control  
Commission



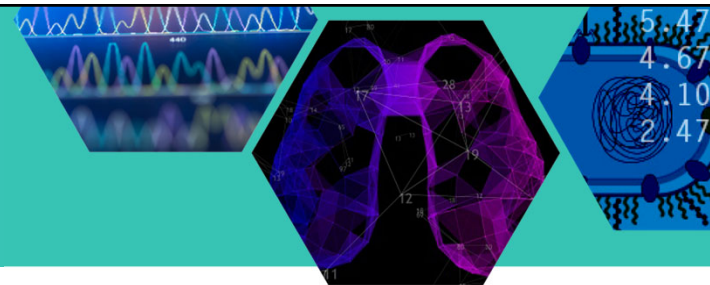
**Silpa D. Krefft, MD, MPH**  
Assistant Professor  
Department of Medicine  
Division of Environmental & Occupational Health  
Sciences  
National Jewish Health  
*Denver, CO*





# Young Investigators

Final Outcomes Report



**Eric Abston, MD, PhD (BS)** – *Massachusetts General Hospital*

Noninvasive Quantification of Radiation Induced Lung Injury by Type 1 Collagen Probe- Translational Model with First in Human Study

**Nikita Agrawal, MD (CR)** – *Mount Sinai Hospital*

Assessing the Interrelationship between Asthma and Obesity Self-Management Behaviors

**Joseph Bailey, MD (CR)** – *Northwestern University*

Differences in Post-Acute Care Healthcare Expenditures after Hospitalization Due to Influenza or COVID-19 Infection

**Daniel Colon Hidalgo, MD, MPH (BS)** – *University of Colorado*

Loss of Vascular EC-SOD Leads to Worse RV Hypertrophy and Metabolic Alterations in PH

**Daniel Cook, MD, PhD (BS)** - *Vanderbilt University Medical Center*

CFTR Regulation of Th2 Effector Cell Function: Implications for Inflammation in Cystic Fibrosis

**Francesca Duncan, MD, MS (CR)** - *Indiana University School of Medicine*

Social Determinants of Racial Differences in Treatment and Mortality in Early and Advanced Stage Non-Small Cell Lung Cancer in a Midwest Urban Population

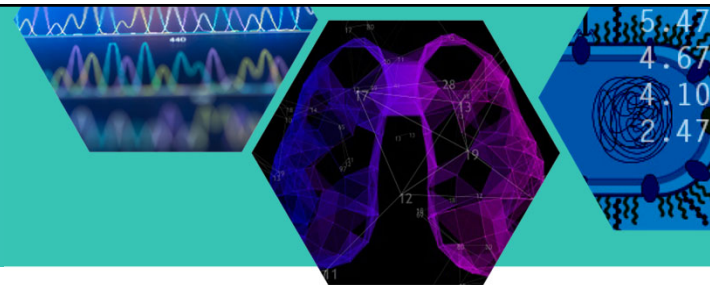
**\*(BS) Basic Science**

**\*(CR) Clinical Research**



# Young Investigators

Final Outcomes Report



**Catherine Gao, MD (CR)** – *Northwestern University*

CarpeDiem: Machine Learning Identifies Distinct Clinical States and Trajectories in Patients with Severe Pneumonia Requiring Mechanical Ventilation

**Mohammad Ghanbar, MD (BS)** – *Johns Hopkins Hospital*

Bronchoalveolar Fluid of Patients with Checkpoint Inhibitor Pneumonitis Demonstrates Elevated Levels of Chemokine Ligand 18

**Andi Hudler, MD (BS)** – *University of Colorado*

Succinate Induces HIF-1 $\alpha$  and Pro-IL-1 $\beta$  Expression in Airway Epithelial Cells

**Kunal Jakharia, MD (CR)** – *University of North Carolina*

Genotype and Phenotype in Primary Ciliary Dyskinesia: Outer Dynein Arm Genes

**Aiham Jbeli, MD (BS)** - *University of Minnesota*

A CD44/Brg1/PRMT5 Nuclear Complex Epigenetically Represses the RBL1 Tumor Suppressor Gene Promoting IPF Mesenchymal Progenitor Cell Self Renewal

**Zachary Johnson, DO (BS)** - *Northwestern University*

Early-Life Hyperoxia is Protective Against Influenza Infection by Inhibition of MCP-1-Mediated Injurious Inflammatory Insult

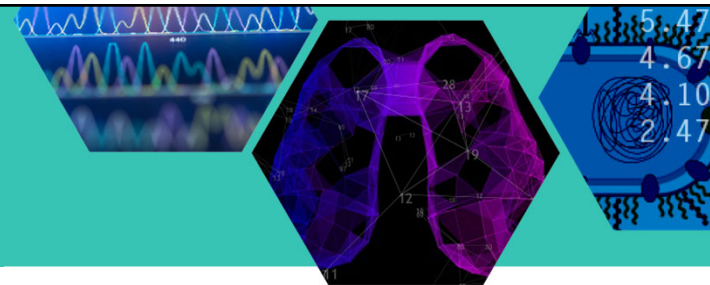
**\*(BS) Basic Science**

**\*(CR) Clinical Research**



# Young Investigators

## Final Outcomes Report



**Nicholas Juul, MD (BS)** – *Stanford University*

Kras Drives Stem Cell Reversion in Vivo But is Restrained By Cell-Of-Origin-Specific Tuning of MAP Kinase and Wnt Signaling

**Jamuna Krishnan, MD (CR)** – *Weill Cornell Medicine*

Race-Sex Differences in Management of Hyperlipidemia among Individuals with Chronic Obstructive Pulmonary Disease (COPD)

**Sophia Kwon, MD (CR)** – *New York University School of Medicine*

Food Intake REstriction for Health OUtcome Support and Education (FIREHOUSE): a Proof of Concept Randomized Clinical Trial

**Bowa Lee, MD (CR)** – *University of Pittsburgh Medical Center*

Elevated Exhaled Nitric Oxide with Low Airway Epithelial Catalase Expression Predicts a Poorly Controlled Asthma Phenotype

**Gabrielle Liu, MD (CR)** – *Northwestern University*

Imaging Marker of Localized Lung Inflammation is Associated With Future Interstitial Changes and Restrictive Spirometry

**David MacDonald, MD, MS (CR)** – *University of Minnesota/Minneapolis VA*

Cardiac Autonomic Function and Incident COPD Hospitalizations in the Atherosclerosis Risk in Communities Study

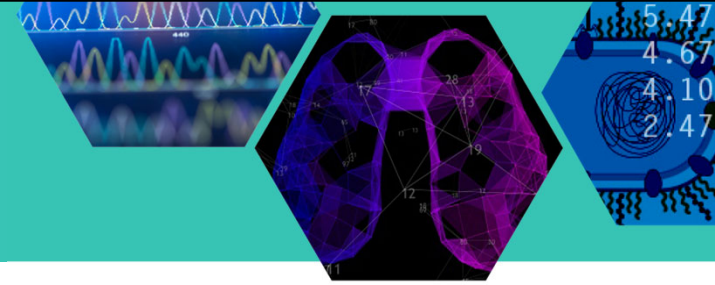
**\*(BS) Basic Science**

**\*(CR) Clinical Research**



# Young Investigators

## Final Outcomes Report



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

Machine Learning Accurately Classifies the Airway Transcriptome of Chronic Lung Allograft Dysfunction and Identifies Phospholipase A2 as a Potential Biomarker and Therapeutic Target

**Sarah Moore, MD (BS)** – *Icahn School of Medicine at Mount Sinai*

Mechanisms of Alveolar Barrier Repair after Staphylococcal Lung Injury

**Marika Orlov, MD (BS)** – *University of Colorado*

Spectral Flow Cytometry Can Be Used for Accurate Identification of Immune Cell Subsets in BAL of Critically Ill Patients

**Mitchell Pitlick, MD (BS)** – *Mayo Clinic*

Exploratory Investigation of Changes in Gene Transcription and Immunophenotypes Following Mepolizumab Treatment for Asthma

**Clare Prohaska, MD (BS)** – *Indiana University*

RASA3 is a Novel Biomarker in the Pathogenesis of Sickle Cell Disease-Associated Pulmonary Hypertension and Pulmonary Arterial Hypertension

**\*(BS) Basic Science**

**\*(CR) Clinical Research**

**Anna Qiu, MD (CR)** – *Johns Hopkins School of Medicine*

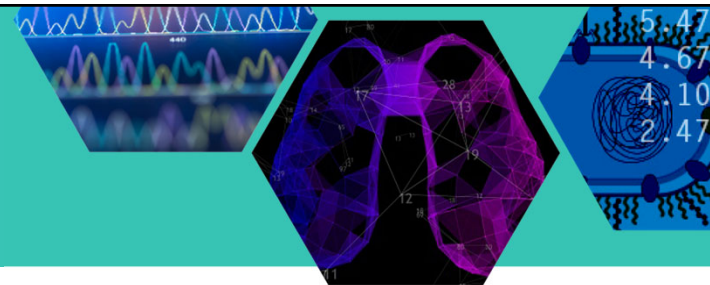
Nasal Epithelial Lining Fluid (nELF) Cytokines as Biomarkers to Characterize T2-High Asthma in Children





# Young Investigators

Final Outcomes Report



**Camille Robichaux, MD (CR)** – *University of Minnesota*

Rurality, Race, and Neighborhood Socioeconomic Status as Determinants of All-Cause Mortality among Veterans with COPD

**Daniel Sullivan, MD (BS)** – *University of Pittsburgh*

The Role of Chronic Type II Alveolar Epithelial Cell Loss in the Pathogenesis Of Idiopathic Pulmonary Fibrosis

**Vickram Tejwani, MD (BS)** – *University of Colorado*

Peripheral CD4+ Single Cell Transcriptional Profiles are Distinct in Obese Children with Asthma

**Ann-Marcia Tukpah, MD (BS)** – *Brigham and Womens' Hospital*

Development and Validation of Algorithms to Create an Electronic Health Record Cohort of Patients with Systemic Sclerosis for Examination of Interstitial Lung Disease Screening

**Jonathan Witonsky, MD (BS)** – *University of California San Francisco*

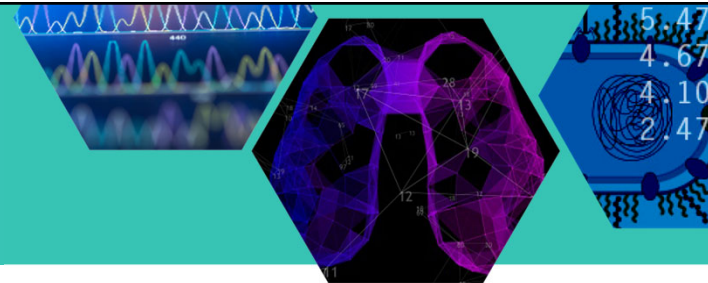
Ancestry-Informed Respiratory Equations in Genetically Admixed Children with and Without Asthma

**\*(BS) Basic Science**  
**\*(CR) Clinical Research**



# Pre to Post Activity Confidence

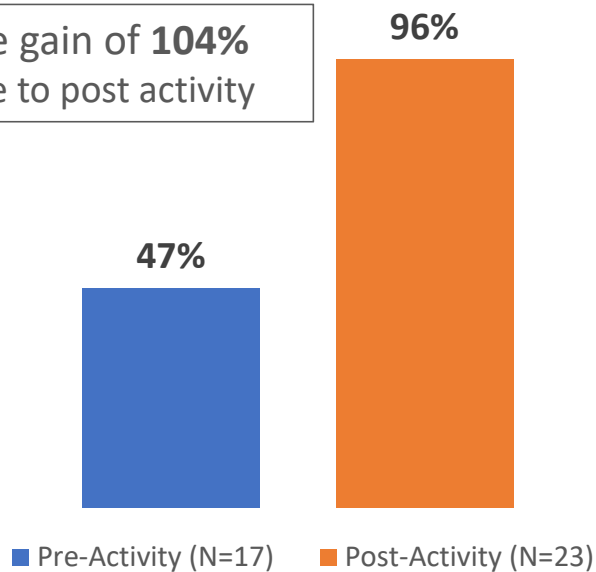
Final Outcomes Report



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

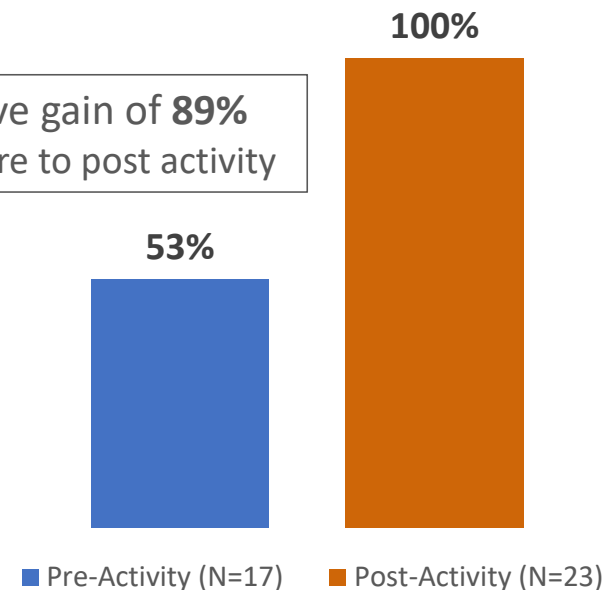
## Presenting scientific research to expert faculty

Relative gain of **104%**  
from pre to post activity



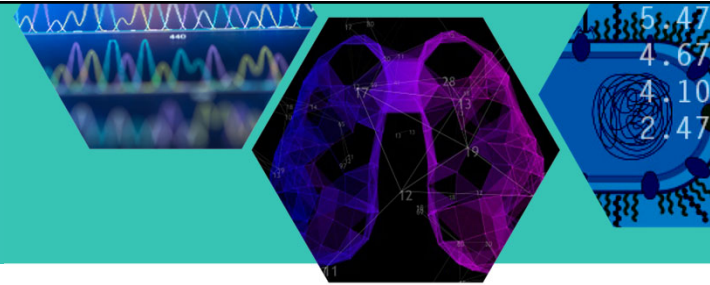
## Confidently articulating strengths/weaknesses of my research

Relative gain of **89%**  
from pre to post activity



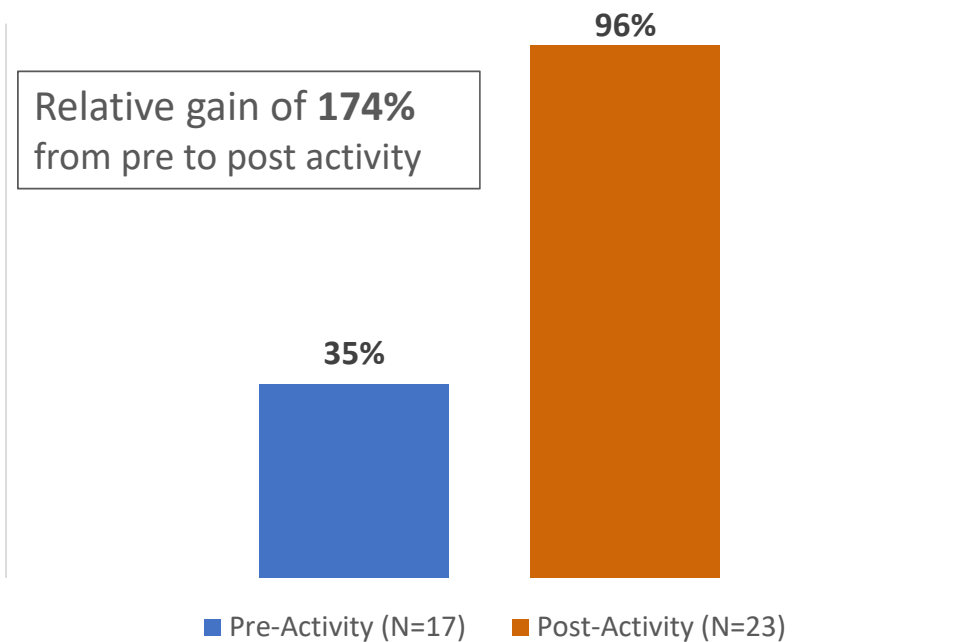
# Pre to Post Activity Confidence

Final Outcomes Report

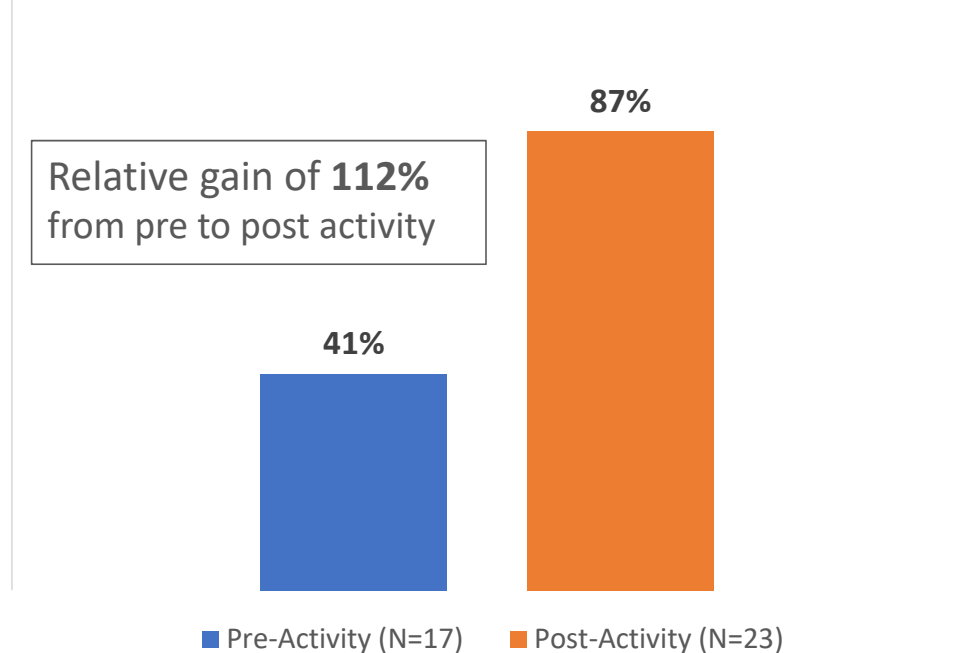


Young Investigators report being “Very Confident” or “Confident” with:

## Networking with Peer Researchers

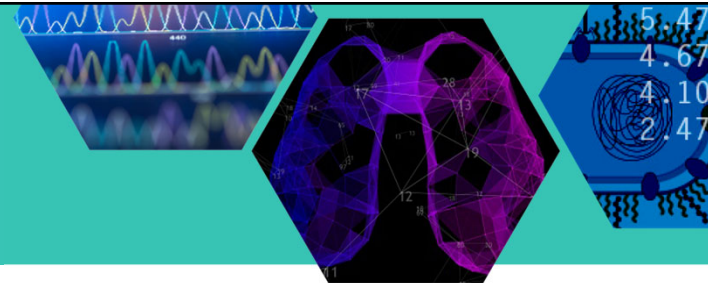


## Seeking input/advice from senior scientists in the field



# Pre to Post Activity Confidence

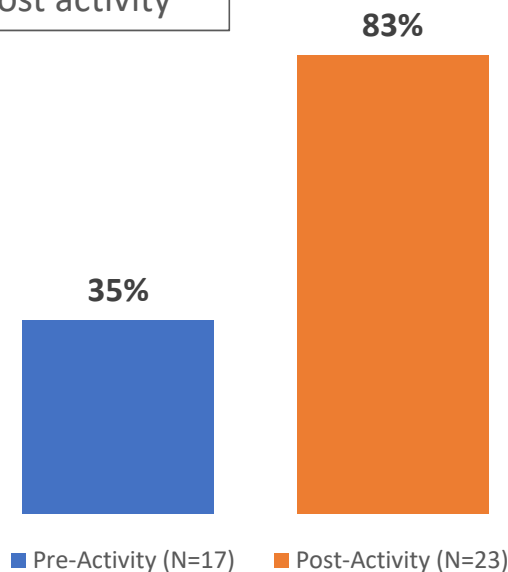
Final Outcomes Report



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

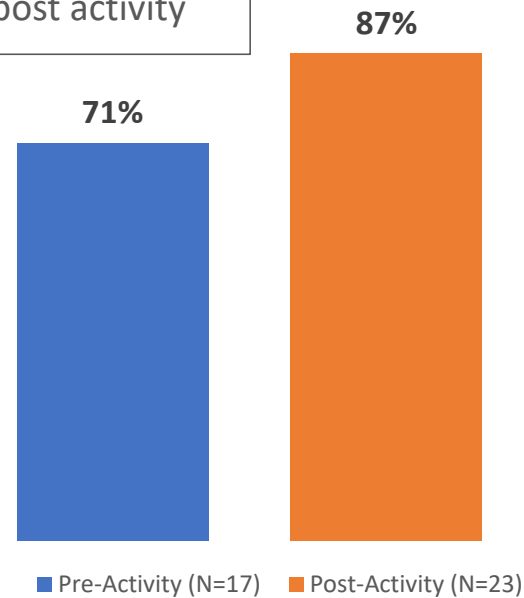
## Identifying the process for securing grant support

Relative gain of **137%**  
from pre to post activity



## Incorporating peer/expert feedback to enhance presentations

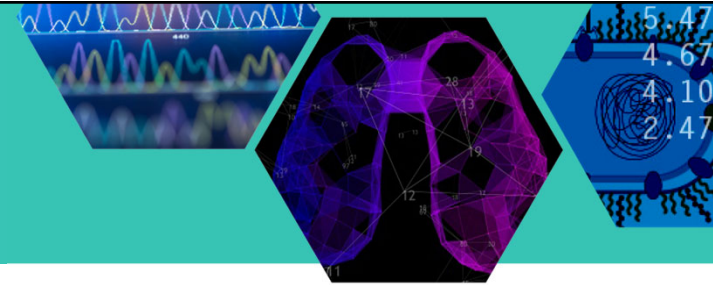
Relative gain of **23%**  
from pre to post activity



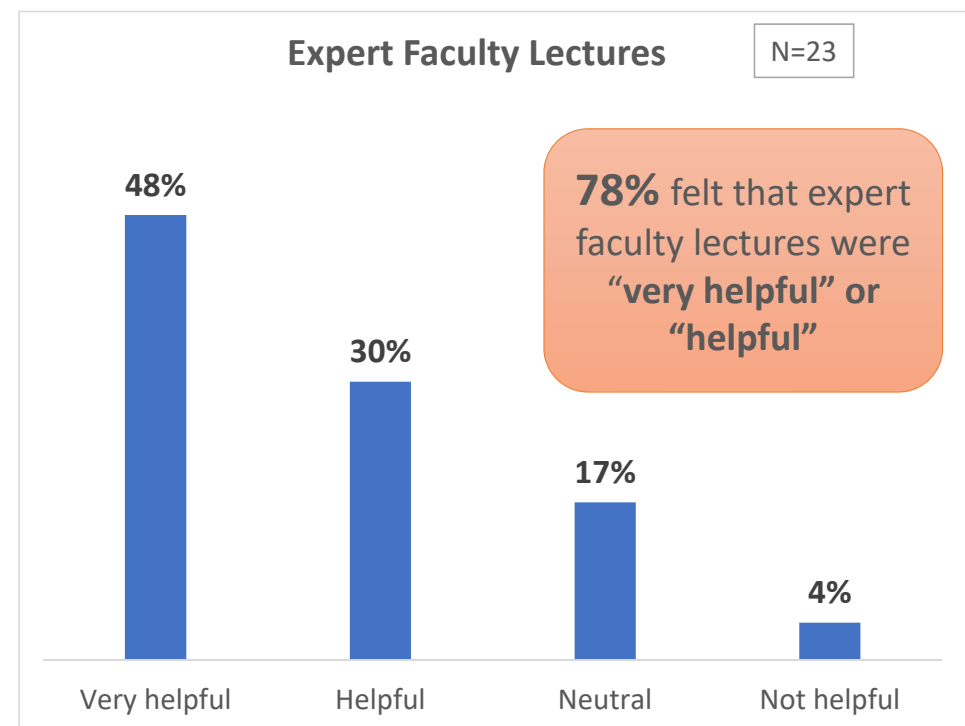
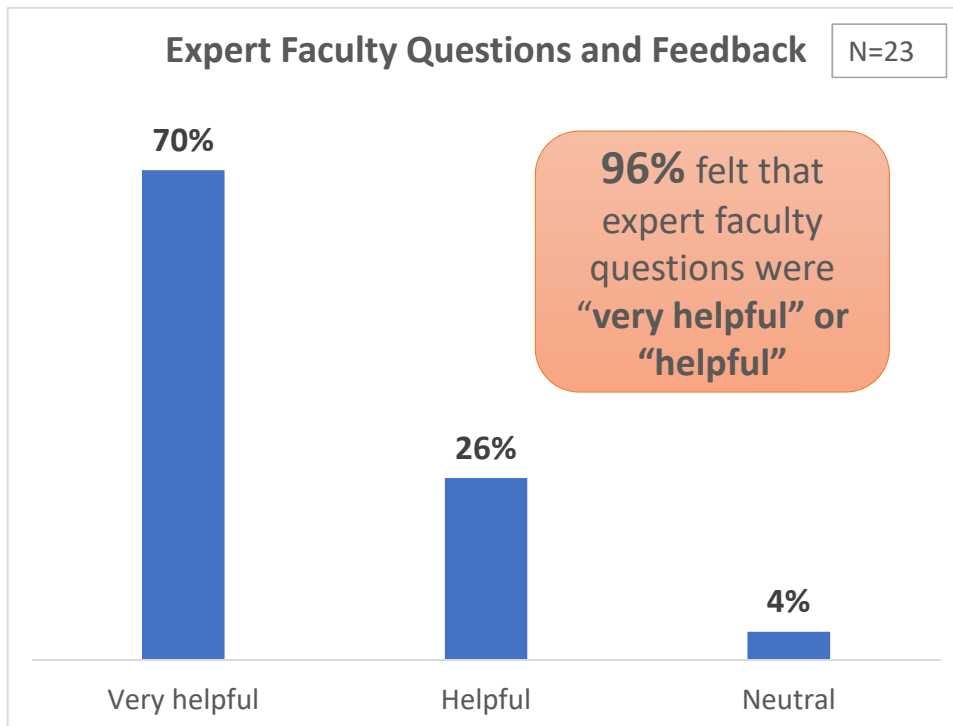


# Evaluation Results

Final Outcomes Report

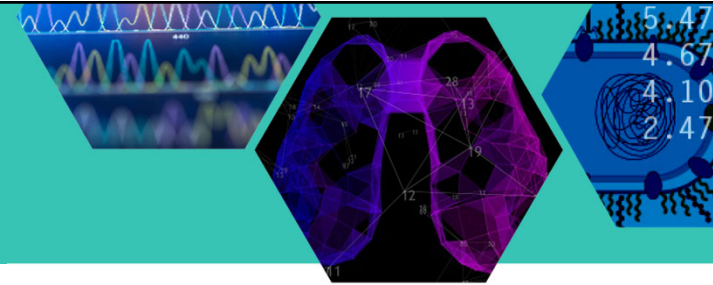


Young investigators indicate the extent that the following components helped meet their expectations of the program:



# Evaluation Results

Final Outcomes Report



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

## Networking with Peers

N=23

74%



Very helpful

Helpful

Neutral

**91%** felt that networking with peers was “**very helpful**” or “**helpful**”

## Networking with Faculty

N=22

68%



Very helpful

Helpful

Neutral

**91%** felt that expert networking with faculty was “**very helpful**” or “**helpful**”

# Evaluation Results

Final Outcomes Report

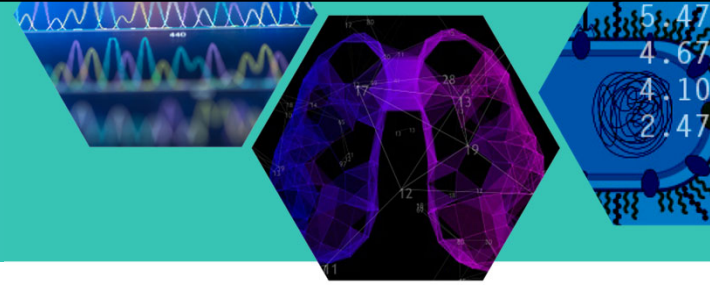


*"This was an incredible experience, and every part of the Forum was well thought-out. It was great to meet colleagues from across the country in a similar position, career-wise, with whom I otherwise would not have had the opportunity to connect. We had so much close time with senior faculty as well, who were able to give us thoughtful advice backed by years of experience. I was truly awed to see all the work the young investigators presented, and look forward to future collaborations with new friends!"*

- Catherine Gao, MD  
2022 Young Investigator Winner

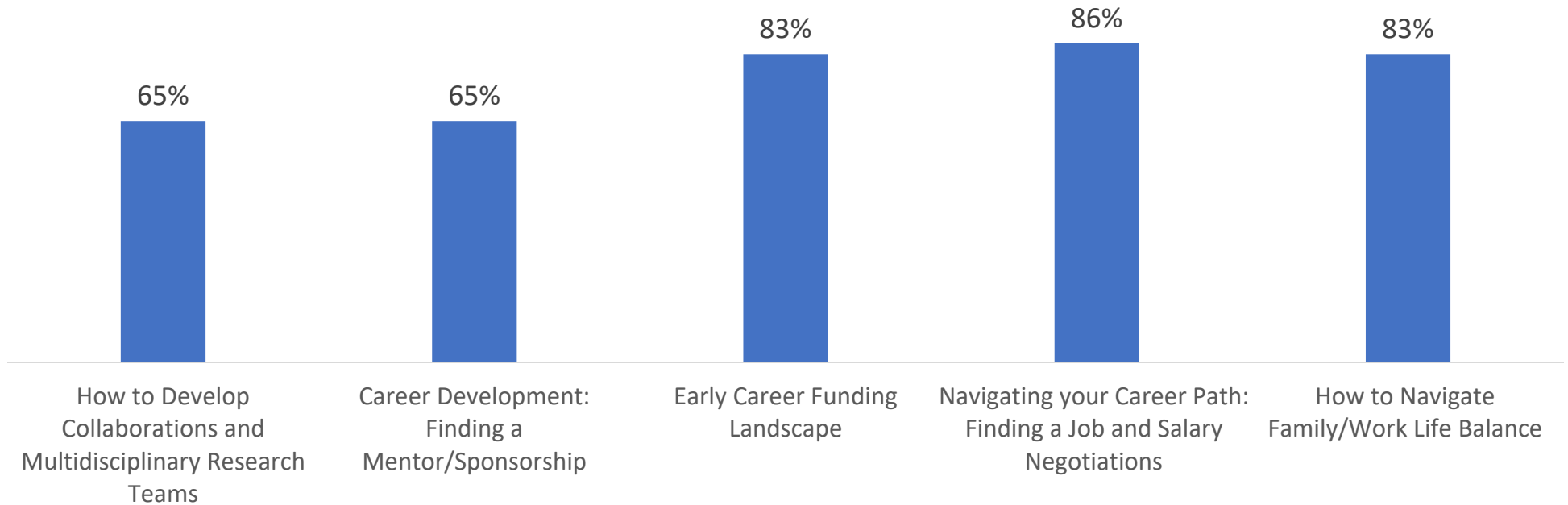
# Expert Lecture Evaluation

Final Outcomes Report



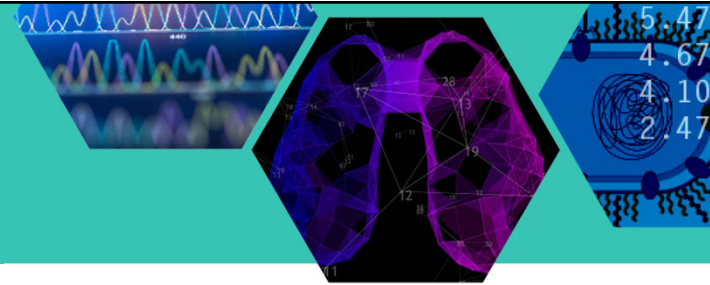
Young Investigators rank expert faculty topics from “Very helpful” to “helpful”:

N=23



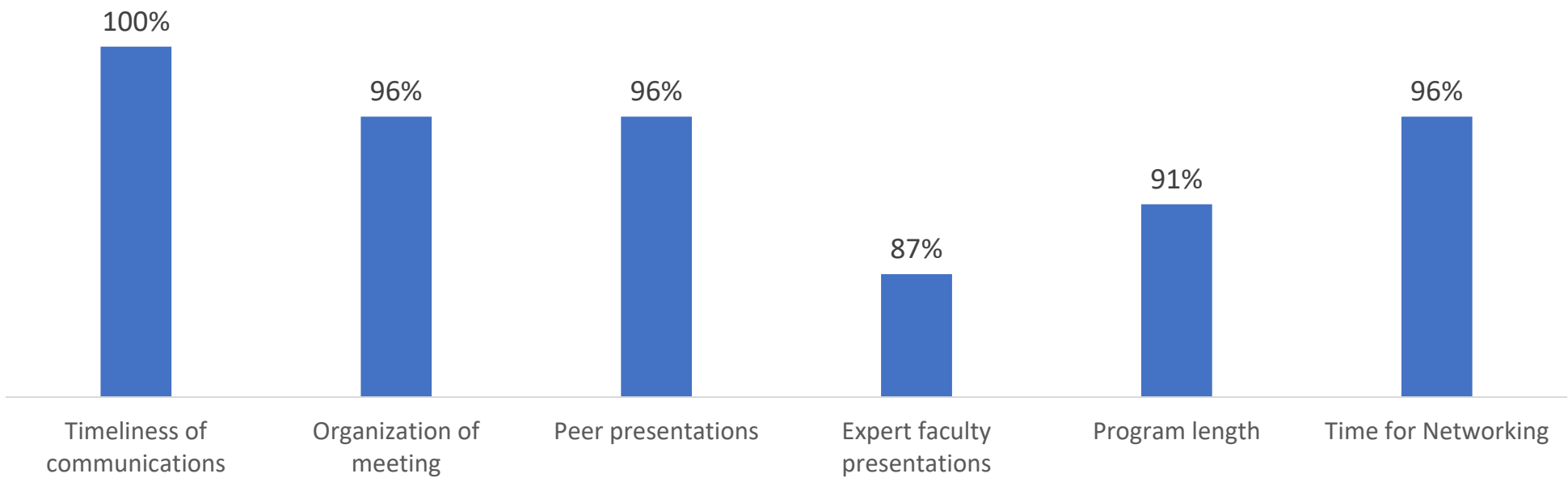
# Overall Program Evaluation

Final Outcomes Report



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

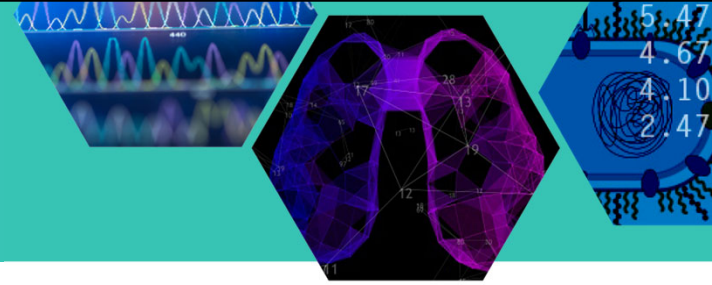
N=23





# Overall Program Evaluation

Final Outcomes Report



- ✓ **100%** reported that they would **recommend this program to their colleagues**
- ✓ **100%** reported the material was **presented in an objective manner and free of commercial bias**
- ✓ **100%** reported that the **learning objectives** of this activity were met
- ✓ **91%** reported that their **expectations for this forum were met or exceeded**
- ✓ **74%** reported that the **activity positively influenced their interest in pursuing a career as a physician scientist**
- ✓ **91%** reported that, in comparison to other professional development activities attended, **this activity was as helpful or more helpful toward meeting professional goals**
- ✓ **71%** reported they would **modify other abstract submissions based on feedback received during this activity**

*“Overall it was a great conference. I will be recommending it to fellows and junior faculty.”*

- 2022 Young Investigator

# Participant Take-Aways

## Final Outcomes Report



- ✓ Networking and seeing the research being performed among peers was great.
- ✓ This was a great forum; it achieved all the intended goals and objectives.
- ✓ Scientific communication creating slides that deliver a message.
- ✓ Salary negotiation is a moving target.
- ✓ Presenting high level information in an expeditious way.
- ✓ Networking with peers, discussing common challenges in pursuing a career as a physician scientist.
- ✓ A number of different methodologies can be used to enhance our understanding of pulmonary diseases and next steps.
- ✓ The feedback provided by the research coaches and faculty was direct, thoughtful, and provided insight into my project that I had not had prior to this event.
- ✓ Unique opportunity and is unlike any other conference I have attended thus far.
- ✓ Met so many like minded colleagues who I would not have met otherwise and hoping to stay in touch with everyone.

# Career Trajectory Changes

## Final Outcomes Report



- ✓ I am planning to undertake a pilot clinical trial sooner than I initially planned.
- ✓ I am seeking ways to identify opportunities for team science.
- ✓ I will be able to move forward in job negotiations to better advocate for myself and my future career path.
- ✓ I have become more interested in the pursuit of COPD/cardiovascular disease overlap.
- ✓ Applying for LRP, other non-NIH funded grants, F32.
- ✓ Thinking about collaborations outside of the institution sooner.
- ✓ I intend to think broadly when it comes to finding the right job that will really support my career and take it to the next level.
- ✓ Better reflection on next steps of investigative work.
- ✓ I am starting as assistant professor soon, but after hearing Dr. Jennifer Taylor-Cousar, I plan to look for grants supported by pharma and have also reached out to the MSL of a company in my state already.

# Accreditation

## Final Outcomes Report

National Jewish Health is accredited with Commendation 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.

National Jewish Health designates this live activity for a maximum of 14.0 *AMA PRA Category 1 Credits*<sup>™</sup>. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

