PROGRESS AND CHALLENGES: A Decade in Retrospect after the NIH Physician-Scientist Workforce Report





TUESDAY, JULY 18, 2023

Hilton Washington DC / Rockville Executive Meeting Center

PRESENTED BY THE NATIONAL ASSOCIATION OF MD-PHD PROGRAMS (NAMPP)



National Association of MD-PhD Programs (NAMPP) Mission Statement

The mission of the National Association of MD-PhD Programs is to advance the education, training and career development of physician-scientists, with an emphasis on training in MD-PhD programs. The Association promotes the development, growth, and nurturing of physician-scientists by representing the interests of MD-PhD programs and their students in the areas of predoctoral research and clinical training, and post-graduate career opportunities. Because of their shared missions, the activities of the National Association of MD-PhD Programs are expected to complement those of the AAMC Great Group MD-PhD Section, with the Association continuing to fulfill its historical role as an additional independent voice of the community of MD-PhD program directors and administrators.

BROAD GOALS

- To facilitate and enhance the ability of institutions to improve human health through the education and training of physician-scientists.
- To advocate for the training of physician-scientists and the creation of attractive career opportunities for physician-scientists through meetings and informational exchange.
- To educate the public and policy makers about the contributions of physician-scientists to the discovery and translation of biomedical research into the understanding, prevention and treatment of disease.
- To meet the needs of the community of undergraduates who seek to become physicianscientists.
- To foster the development of new MD-PhD Training Programs and the improvement of existing MD-PhD Training Programs



Thanks to our sponsor

Thanks to the generous donation from the Burroughs Wellcome Fund (BWF), we're thrilled to be able to provide funds for lunch, coffee, and refreshments at the event. The BWF's support means that participants can enjoy delicious meals and beverages throughout the day, keeping them energized and engaged. We are incredibly grateful for the BWF's commitment to creating a positive and enjoyable experience for everyone attending the event.





Physician-Scientist Workforce Working Group Report

The Physician-Scientist Workforce Working Group (PSW-WG) was convened by Dr. Francis Collins, NIH Director, to analyze and make recommendations for strengthening the physician-scientist workforce. The PSW-WG emerged from earlier reports highlighting the unique challenges faced by physician-scientists and the need for further study in this area. Through quantitative analyses and qualitative research, the PSW-WG defined physician-scientists as professionals with clinical training who engage in independent biomedical research. They aim to support and sustain a diverse and robust physician-scientist workforce to drive advances in biomedical research and healthcare practice. The nine recommendations from the Physician-Scientist Workforce Working Group (PSW-WG) are as follows:

- 1. Sustain strong support for MD/PhD training programs, including the Medical Scientist Training Program (MSTP) funded by NIH.
- 2. Shift the balance in postdoctoral training for physicians towards individual fellowships rather than institutional training grants, and increase the number of individual fellowship awards for MD-PhD students.
- 3. Address the gap in research project grant (RPG) award rates between new and established investigators, exploring pilot approaches and rigorously assessing their effectiveness.
- 4. Adopt rigorous tools for assessing the strength of the biomedical workforce, including physician-scientists, and establish a Biomedical Workforce Dashboard for real-time tracking of career development and progression.
- 5.Establish a physician-scientist-specific grant mechanism to facilitate the transition from training to independence, similar to the K99/R00 program.
- 6.Expand Loan Repayment Programs and increase the amount of loans forgiven to better reflect the debt burden of current trainees.
- 7. Support pilot grant programs to test approaches for improving and shortening research training for physician-scientists, exploring alternative training methods and addressing emerging needs in informatics and social science research.
- 8. Intensify efforts to increase diversity in the physician-scientist workforce, building upon previous recommendations from other workforce working groups.
- 9.Leverage the resources of the Clinical and Translational Science Awards (CTSA) program to enhance training and career development for early-career physician-scientists, utilizing rigorous outcome data analysis.



WELCOME

8:00 am - 8:15 am EST



JOSE CAVAZOS, MD, PHD

UT Health San Antonio, Associate Dean for Research MD-PhD Program Director, President NAMPP

Program overview, highlighting the importance of the Physician-Scientist Workforce Working Group Report and emphasizing the significance of the discussions and knowledge sharing that will occur.

SESSION 1

Plenary: The Physician Scientist

8:20 am - 9:40 am EST

Join us for the opening plenary session of the 2023 National Association of MD-PhD Programs Conference. We're honored to be welcoming the esteemed Director of the National Institute of General Medical Sciences and Acting Director of the National Institutes of Health, who will share vital insights on the role and impact of physician-scientists in our society. Prepare for an enlightening dialogue that explores current trends and the future of biomedical research and healthcare.





ANDREW ZINN, MD, PHD

Dean, UT Southwestern Graduate School of Biomedical Sciences

Dr. Zinn will set the stage for Dr. Lorsch and Tabak's discussion on the current state and future prospects of the Physician Scientist in 2023.

JON LORSCH, PHD

Director, National Institute of General Medical Sciences

As the Director of NIGMS, Dr. Jon R. Lorsch will provide insights on biomedical research trends, NIGMS's support for a diverse scientist pipeline, and the future direction of biomedical research under his leadership.



LAWRENCE A. TABAK, DDS, PHD

Acting Director of the National Institutes of Health

Lawrence A. Tabak, D.D.S., Ph.D. is the Acting Director of the National Institutes of Health (NIH), with a distinguished career in dental and craniofacial research. He has held various leadership positions within the NIH, including Principal Deputy Director and Director of NIDCR.

BREAK

Coffee break and networking

9:40 - 10:00 am EST



SESSION 2

Diversifying the physicianscientist pathway

10:00 am - 11:00 am EST

This one-hour session aims to explore initiatives at the NIH and through various pathway programs that contribute to the diversification of physician-scientist pathways. The session will focus on early exposure, mentorship, and alternative pathways in fostering diversity in the biomedical workforce. It will also highlight the benefits and challenges of these initiatives. The session aims to provide valuable insights, best practices, and strategies for promoting diversity and success in recruitment across the physician-scientist continuum.











TALIA H. SWARTZ, MD, PHD

Director, Medical Scientist Training Program, Icahn School of Medicine at Mount Sinai

Dr. Swartz will moderate this session on diversifying physician-scientist pathways as a program director and in overseeing initiatives to broaden the diversity of recruitment for MD-PhD training.

MERCEDES RUBIO, PHD

Program Director at National Institutes of Health

Dr. Mercedes Rubio, Program Officer at NIGMS, has led equity and diversity initiatives in the MSTP to support underrepresented individuals pursuing careers as physician-scientists and promote inclusivity in the field.

MYLES AKABAS, MD, PHD

Director, Medical Scientist Training Program, Albert Einstein College

of Medicine

Dr. Akabas, overseeing the PREP and MD-PhD programs, will offer valuable insights on diversifying the physician-scientist pipeline through early exposure, mentorship, and alternative pathways, addressing challenges and promoting recruitment and success.

CATHARINE BOOTHROYD, PHD

Executive Director, Tri-Institutional MD-PhD Program

Dr. Boothroyd will share insights on the Gateways to the Laboratory Summer Program at Weill Cornell Medicine, highlighting its goals, structure, and outcomes with early exposure and mentorship to underrepresented individuals and promoting diversity and success in the physician-scientist pipeline.

URAINA CLARK, PHD

Associate Director, Medical Scientist Training Program, Icahn School of Medicine at Mount Sinai

Dr. Clark, as the Faculty Development Core Director of the NIH First program will offer valuable insights on diversifying physician-scientist pathways, particularly in supporting underrepresented individuals, enriching the discussion on effective mentorship and career development for physician-scientists.



SESSION 3

Reducing Financial Barriers for Physician–Scientists

11:00 am - 12:00 pm EST

The discussion will focus on two key areas: early financial entry barriers and late retention barriers. Topics to be explored include the financial costs of the application process, secondary waivers, virtual interviews, physician-scientist subsidies, loan repayment, and considerations for family planning. The panel aims to generate insights and strategies to reduce these financial obstacles and enhance the success of physician-scientists.



RANDY SEAY, MA, MPA, MPH

Associate Director, Physician Scientist Development Office, University of Alabama at Birmingham

Mr. Seay will provide valuable insights on early financial entry barriers faced by physician-scientists, including application costs, secondary waivers, and virtual interviews. He will also discuss the role of the NIH Loan Repayment Program. His expertise will contribute to the session's discussion on strategies to address these challenges and promote greater accessibility to physician-scientist training.



RACQUEL COLLINS, PHD

Director of Operations, NIH Oxford-Cambridge Scholars Program, National Institutes of Health

Dr. Collins will contribute to the session by discussing the MD-PhD Partnerships through the NIH Oxford-Cambridge Scholars Program. Her contribution will highlight innovative programs and partnerships that aim to alleviate financial barriers for physician-scientists. By sharing information about the MD-PhD Partnerships Program, she will provide valuable insights and strategies to reduce financial obstacles and promote physician-scientists' success.



PATRICK HU, MD, PHD

Director, Physician-Scientist Training Program, Vanderbilt University Medical Center

Dr. Hu will contribute insights on late retention barriers for physicianscientists, including incentives for retention such as physician-scientist subsidies and considerations for family planning. His expertise will enrich the session's discussion on strategies to reduce financial obstacles and promote the success of physician-scientists.

LUNCH

12:00 - 1:00 pm EST

BUSINESS LUNCH AND AWARDS



SESSION 4

Innovating and Optimizing Training for Physician-Scientists

1:00 pm - 2:00 pm EST

This session will focus on streamlining training for physician-scientists. Insights will be shared on shortening the MSTP time-to-degree, alternate pathways to becoming a physician-scientist, optimizing the post-graduate physician-scientist training through PSTPs, leveraging early career physician-scientist funding, and reconciling the NIGMS training grant goals of increased programming for physician-scientist career development.





CHRISTOPHER WILLIAMS, MD, PHD

Director, Medical Scientist Training Program, Vanderbilt University Medical Center

During this session, Dr. Williams will provide valuable insights and expertise on streamlining training for MSTP and PSTP trainees. His contributions will focus on optimizing the training experience for physician-scientists, offering strategies and best practices to enhance efficiency and effectiveness in their career preparation.

SINDY ESCOBAR ALVAREZ, PHD

Program Director for Medical Research, Doris Duke Foundation

Dr. Escobar Alvarez, leader of the Doris Duke Foundation's Medical Research Program, will provide valuable insights on advancing equitable and inventive evidence-based solutions in medical research, with a focus on supporting sickle cell disease research and retaining early-career physician-scientists. Her expertise will contribute to the discussion on promoting diversity, equity, and innovation in physician-scientist training.



VIVIAN CHUENG, MD

Founder, Physician Scientist Support Foundation, Frederick G.L. Huetwell Professor of Pediatric Research Research Professor, U-M Life Sciences Institute

Dr. Cheung will bring insights into supporting and empowering physicianscientists in their career development. Dr. Cheung's contributions will enrich the discussion by highlighting the foundation's initiatives, strategies, and resources that promote the success and advancement of physicianscientists.



ANDREA KEANE-MYERS, PHD

Program Director, NIH Medical Scientist Training Program

Dr. Keane-Myers will share her expertise on the MSTP and its role in supporting dual-degree training for physician-scientists. She will address questions related to the NIGMS priorities and the challenges of streamlining training for physician-scientists while reconciling the increasing expectations of training grants to include activities such as career development and exploration of translational research.



SESSION 5

Mentorship and Support for Physician-Scientists

2:00 pm - 3:00 pm EST

This one-hour session focuses on mentorship and support for physician-scientists throughout their careers. The session will begin with an introduction and welcome, followed by a speaker presentation highlighting the significance of physician-scientist mentoring and the importance of holistic support. After the presentations, participants will engage in breakout group discussions to share their experiences and exchange best practices related to physician-scientist mentoring. The session aims to foster collaboration, knowledge sharing, and enhancing mentorship and support initiatives for physician-scientists.



BARBARA KAZMIERCZAK, MD, PHD

Director, Medical Scientist Training Program, Yale School of Medicine

Dr. Kazmierczak will guide the discussion and set the stage for the conversations on mentorship and support for physician-scientists, sharing experiences shared based on the Yale Physician Scientist Mentoring Program. She will facilitate a productive and engaging session, ensuring that the participants can share their experiences, insights, and best practices related to physician-scientist mentoring.



SHARON MILGRAM, PHD

Director Office of Intramural Training & Education at National Institutes of Health

Dr. Milgram from the NIH Office of Intramural Training & Education (OITE) will provide valuable insights and expertise on career and professional skills necessary for success in the biomedical and behavioral sciences. Their contribution will focus on guiding physician-scientists in various career paths within these fields, providing essential resources for their development and growth.



DIANNA MILEWICZ, MD, PHD

Director, Medical Scientist Training Program, University of Texas Health Science Center at Houston (UTHealth) McGovern Medical School

Dr. Milewicz will share insights on the AAP Longitudinal Sponsorship/Mentorship Program, drawing from her extensive experience as the President George H.W. Bush Chair of Cardiovascular Medicine and Director of the Division of Medical Genetics at the University of Texas Health Science Center at Houston.

BREAK

3:00 - 3:30 pm EST



SESSION 6

The PSW Report: Where are we now and we are we headed?

3:30 pm - 5:00 pm EST

This working session centers around The Physician-Scientist Workforce Report, examining its findings and future directions. The session begins with a summary of progress and an overview of NIH support for medical scientist training. Breakout groups will then delve into specific topics, fostering discussions on diversifying the workforce, reducing financial barriers, innovating training, and mentorship and support. Participants will share ideas and initiatives, concluding with a collective list of recommendations to guide future strategic priorities for the physician-scientist workforce. The session aims to shape the field by addressing challenges and identifying strategies for progress in physician-scientist training and development.



LAWRENCE (SKIP) BRASS, MD, PHD

Director, Medical Scientist Training Program, Perelman School of Medicine

Dr. Brass, as co-author of the 2014 Physician-Scientist Workforce Report, will provide valuable insights during this session. His contributions will include an overview of the report and updates on progress since its publication. With his extensive knowledge of medical scientist training, Dr. Brass will contribute to discussions on the current state of the physician-scientist workforce and help shape future directions and strategies for advancement.



ALISON GAMMIE, PHD

Director Training, Workforce Development and Diversity at NIGMS, National Institutes of Health

As the Director of Training, Workforce Development, and Diversity at NIGMS, Dr. Gammie oversees initiatives that align with the report's findings and recommendations. Her insights and perspectives will bridge the gap between the report and the practical strategies implemented by NIGMS to support the physician-scientist workforce.



JOSE CAVAZOS, MD, PHD

UT Health San Antonio, Associate Dean for Research MD-PhD Program Director, President NAMMP

Dr. Jose Cavazos, as the MD-PhD Program Director and President of NAMPP, will close the session by shaping strategic priorities for the future of the physician-scientist workforce. His expertise and insights will guide discussions on determining key areas of focus and ensuring alignment with the evolving needs of the field.



Planning Committee



TALIA H. SWARTZ, MD, PHD

Director, Medical Scientist Training Program, Icahn School of Medicine at Mount Sinai



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ANDREW ZINN, MD, PHD

Dean, UT Southwestern Graduate School of Biomedical Sciences Professor



BRIAN SULLIVAN, MA

Executive Director, Medical Scientist Training Program, Washington University in St. Louis



JUSTIN MOTT, MD, PHD

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National Association of MD-PhD Programs – Executive Committee

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