

# *The National Academies of* **SCIENCES • ENGINEERING • MEDICINE**

## **POLICY AND GLOBAL AFFAIRS DIVISION**

*Board on Higher Education and Workforce*

**SPEAKER BIOS** (in alphabetical order by last name)

### **Community College of Philadelphia Virtual Town Hall: Successes in STEM Education, Research, and Workforce Preparedness**

Webcast Live Here: <https://www.nationalacademies.org/event/05-24-2021/community-college-of-philadelphia-virtual-town-hall-successes-in-stem-education-research-and-workforce-preparedness>

May 24, 2021 | 10:00am-1:00 pm ET

#### **Bayo Bello**, *University of Missouri School of Medicine*

Bayo Bello grew up in Nigeria and moved to the US to pursue a medical degree. Currently, he is a 3rd year medical student at the University of Missouri, Columbia. He earned an Associate in Science degree from the Community College of Philadelphia and graduated magna cum laude from Bucknell University with a B.S. in Biology. Before medical school, Bayo worked as a research scientist in gene therapy at the University of Pennsylvania before taking up a position at the Children's Hospital of Philadelphia as an assistant genetic counselor. At the University of Missouri, Bayo serves in several offices such as the chair of the student ambassadors, vice president of the internal medicine interest group and pipeline director for the Student National Medical Association. In that position, he works to provide mentorship for high-school and college students of color who are interested in STEM research and medicine. When he is not studying, he loves going on walks and listening to his favorite podcasts. He also enjoys watching cartoons, soccer matches and movies. Bayo hopes to become a gastroenterologist someday where he can tell poop jokes all day without getting into trouble.

#### **Phil Brooks**, *Director, STEM Workforce Partnerships, University City Science Center*

Phil Brooks is a native of West Philadelphia and attended Girard College High School. He then attended American International College in Springfield, Massachusetts where he received his B.S. in Biology. Returning to Philadelphia he joined the education based AmeriCorps program City Year Philadelphia where he served as a Senior Program Manager and led over 200 18-24 year old young adults in full time volunteer service. After a 10 year commitment to City Year, he joined the Mayor's Office of Education as the US2020 Program Manager of STEM Initiatives. Later, his work transitioned to the Commerce Department's Talent Development Unit and finally to the Office of Workforce Development where he oversaw the City of Philadelphia's citywide STEM Initiative that engaged, connected and convened citizens in the region. He is now the Director of STEM Workforce Partnerships for the University City Science Center and is tasked with connecting and building partnerships with STEM employers to ensure job placement of West Philadelphia residents. In collaboration with several partners, Phil successfully oversaw the planning, logistics and implementation of the Building an Understanding of Lab Basics (BULB) Workforce program designed to reskill and connect Philadelphia adults to Life Science industry professionals in preparation for employment in these fields.

#### **John Fry**, *President, Drexel University*

After becoming Drexel University's 14th president in 2010, John Fry set out to transform Drexel into a private research university with a strong public purpose — an institution that harnesses its strengths in cooperative education, translational research, online education and entrepreneurship to serve students, its neighborhood, the city and nation. Under Fry, Drexel has helped lead the continuous revitalization of West Philadelphia, spearheading the designation of this area as a federal Promise Zone, and initiating Schuylkill Yards, a 14-acre innovation district at 30th Street Station. In addition to leading Drexel, Fry served as chairman of the Chamber of Commerce for Greater Philadelphia, concluding his tenure in October 2018.

**Donald Guy Generals, Ed.D, *President, Community College of Philadelphia***

Dr. Donald Guy Generals became the sixth President of Community College of Philadelphia on July 1, 2014. As the chief executive officer, he guides Philadelphia's only public institution of higher learning, which serves more than 35,000 credit and non-credit students from diverse social, cultural and educational backgrounds. Previously, Dr. Generals served as Vice President for Academic Affairs at Mercer County Community College in West Windsor, New Jersey from 2008 to 2014. Before joining Mercer's cabinet, he held positions as Provost at the Katharine Gibbs Schools in New York City; Vice President for Academic and Student Affairs at SUNY Rockland Community College in Suffern, N.Y., and Dean of Student and Cultural Affairs at Passaic County Community College in Paterson, N.J. Dr. Generals has twenty years of teaching experience. Dr. Generals serves on numerous boards in Philadelphia including the Greater Philadelphia Chamber of Commerce, the Economy League of Greater Philadelphia, Philadelphia Works, Campus Philly, the Urban Affairs Coalition, the Free Library of Philadelphia, Friends Select School, and Mayor's Reconciliation Steering Committee. He served on numerous professional organizations, including the New Jersey Academic Affairs Affinity Group (chair); the National Alliance of Community and Technical Colleges (Board member since 2010); the College Board, Middle States Regional Council; and the Paterson Board of Education (Commissioner). Dr. Generals writes and speaks on a range of educational issues. His book, Booker T. Washington, *The Architect of Progressive Education*, was published in 2013. Dr. Generals earned his Ed.D. in Social and Philosophical Foundations of Education at Rutgers University after earning both his M.A. in Urban Education/Community Service and his B.A. in Political Science at William Paterson College. Additionally, he has earned certificates in administrative leadership and educational management at Cornell and Harvard Universities.

**Samuel Hirsch, PhD, *Vice President for Academic and Student Success, Community College of Philadelphia***

Dr. Hirsch is the vice president for academic and student success at the Community College of Philadelphia. He has over 30 years of leadership experience in a variety of roles at CCP. He is leading Achieving the Dream and Guided Pathways efforts. Hirsch has a Bachelor of Arts from Temple University, a Masters of Arts in Education from Arcadia University and a Doctorate in Educational Leadership from Wilmington College.

**Linda Powell, MD, *Professor and Department Head of Biology, Community College of Philadelphia***

Dr. Linda Powell, MD is Professor and Department Head of Biology at the Community College of Philadelphia [CCP]. Dr. Powell has served as Department Head of Biology for 20 years guiding instruction and Biology offerings to thousands of students. She was the CCP 2006 recipient of the Christian R. and Mary F. Lindback Foundation Award for Distinguished Teaching. She is the CCP Co-Principal Investigator for the Greater Philadelphia Region Louis Stokes Alliance for Minority Participation Grant, funded by the National Science Foundation. She has worked on this initiative for 26

years. CCP works with eight tristate Colleges and Universities to increase the number of African-American, Latino and Native –American students receiving baccalaureate degrees in the areas of Science, Technology Engineering and Mathematics [STEM]. Dr. Powell received a Citation from the Philadelphia City Council in June of 2015 for her years of STEM student support on the AMP grant and the RISE/MSEIP grant funded by the US Department of Education. Dr. Powell has been on the Board of Directors for the Greater Philadelphia Health Action Inc., a group of federally qualified health centers serving the City of Philadelphia, for 17 years and has served as 1st Vice Chair of the board for 14 years. In 2015, Dr. Powell received Greater Philadelphia Health Action Inc. Service Leadership Award for outstanding service to the organization.

**Veronica Refela**, *Electrical and Computer Engineering Student, Temple University*

Bio requested

**Dominic M. Salerno, PhD**, *Assistant Professor of Biology, Community College of Philadelphia*

Dominic Salerno studied the role of P-TEFb on HIV replication and T Cell activation in the lab of Xavier Grana at The Fels Institute for Cancer Research and Molecular Biology, where he received his Ph.D. in Molecular Biology and Genetics in January of 2007. Subsequently, he studied antigen presentation using a mouse model of smallpox at The Fox Chase Cancer Center in the lab of Luis Sigal. He returned to The Fels, where he studied the role of GADD45 in innate immunity and inflammation in a mouse model of septic shock under Drs. Barbara Hoffman and Dan Liebermann. He was hired as a tenure track Assistant Professor for The Community College of Philadelphia in 2011. Since, he has taught over 50 sections of General Biology, 50 sections of Microbiology, 20 sections of Cell and Molecular Biology and 7 sections Anatomy & Physiology. Dr. Salerno has developed course material and programs for CCP, including their Biochemistry I course (BIOL 281) and the curriculum for their new A.S. in Biology. He also serves on the Biotechnology committee, which seeks to develop further training and research capabilities at CCP. He continues to pursue a program of research and training through grant funding and collaborations, particularly with Fels Institute mentors and The Wistar Institute. Through a recent Department of Defense Grant, CCP Foundation Grant, and a Department of Education RISE (Raising Interest in Science and Engineering) Grant, he has developed a research training course which aims to retain students in STEM fields of study as well as investigate the effectiveness of using a research based laboratory courses. This work led him to begin publishing in education and as an active member of The American Society for Microbiology, where he has presented a poster on this research entitled: Community College Accelerated Research Experience (CCARE): A Pilot Study to Integrate Student-Driven Research into a Course-Based Research Program (2016). Dr. Salerno has served as the academic coordinator of The Biomedical Technician Training Program since 2018. He serves as academic coordinator, mentor, and also trains students directly in the laboratory. In his collaboration with The Wistar Institute, he has sought to expand and improve the program over the last three years. In doing so, he has rewritten the course document, converting the associated BTT 101 course from a 3 to a 4 credit course. Furthermore, he has collaborated with the director of the BTT Program at The Wistar Institute, recently (2021) serving as Co-PI on an NSF grant entitled “Expansion, Curriculum Evolution, and Enhancement of Biotechnician Training” which seeks to improve this already outstanding program.

**Marcella Stokes**, *Owner, eRubrick LLC*

Marcella is the Owner of eRubrick LLC; an Atlanta based company offering business coaching, professional speaking, programming, and strategic management services. A distinguished combat veteran, she has provided specialized services globally in the areas of security, engineering, structural thinking and mapping, strategic management, project and program management. Marcella has been

featured in academic publications and media outlets where she championed for education and professional opportunities within science, technology, engineering, and mathematics (STEM) professions. She is passionate about social innovations and equality, learning, and effective problem resolution. She feels that economic and educational empowerment of diverse communities positively impacts social change globally.

**Laura Stubbs (She, Her, Hers), PhD**, *Director, Office of Diversity, Equity & Inclusion, School of Engineering and Applied Science, University of Pennsylvania*

Dr. Laura Stubbs is the Director of the Office of Diversity, Equity & Inclusion at the School of Engineering and Applied Science of the University of Pennsylvania. Her selection also includes assignments as the Co-Principal Investigator in the Greater Philadelphia Louis Stokes Alliance for Minority Participation (Philadelphia AMP) program and Liaison to the Penn First Plus Program at her university. Dr. Stubbs has over 30 years of military, public and private sector experience. She was previously appointed to the Office of the Secretary of Defense as a member of the Senior Executive Service in July, 2010. There she served as the Director for Defense Science & Technology Future Workforce Scholarship Initiatives where she coordinated applicable Department of Defense (DoD) scholarship programs. As the Director of the STEM Development Office, she led key aspects of the STEM initiatives assigned to the Assistant Secretary of Defense for Research and Engineering including execution of the 2013 Federal 5-Year STEM Education Strategic Plan throughout DoD. Dr. Stubbs entered the U.S. Navy as the first African American Naval Nuclear Power School Instructor. She held positions of increasing responsibility including Assistant Professor in the Mechanical Engineering Department of the U.S. Naval Academy to Commanding Officer of a Naval Sea Systems Command Inspector General Reserve Unit. With a proven track record of success, Dr. Stubbs was recalled to active duty by the Assistant Secretary of the Navy for Manpower & Reserve Affairs. She retired as a Captain and a qualified Engineering Duty Officer. Dr. Stubbs earned her Ph.D. in Mechanical Engineering from the University of Maryland at College Park. She holds both her B.S.E. and M.S.E. degrees in Mechanical Engineering and Applied Mechanics from the University of Pennsylvania. Her awards and recognitions include the Outstanding Public Service Medal from the Secretary of Defense; the Meritorious Service Medal; inclusion among 100 Women Leaders in STEM by STEMconnector® and listed as one of 30 Inspirational Women in Naval Engineering in a 2020 Special Edition of the *Naval Engineering Journal*.

**Nandima Turay-Yankoon**, *Assistant Mathematics Professor, Community College of Philadelphia*

Nandima Turay-Yankoon is a fulltime Assistant Mathematics Professor, teaching through the department of Foundational Mathematics at Community College of Philadelphia. She also serves as the Assistant to the Department Chair. She teaches various courses in mathematics from fundamental math up through college level courses. It has been a great passion of hers since undergraduate school to help bring more students, especially underrepresented minority students, into the field of STEM. She was born in Sierra Leone and came to the United States at a young age. She lived most of her life in California, where she graduated high school and then moved to Pennsylvania in 2002. She earned her Bachelor of Science degree in Mathematics Education through the department of Mathematics at Lincoln University in 2009. After graduating with her bachelor's degree, she was blessed to receive a scholarship through the Bridge to the Doctorate (BTD) Fellowship Program funded by the National Science Foundation to attend Delaware State University. This program meant a lot to her because its goal and objective were similar to her own. It helps students from underrepresented populations to go to graduate school at no cost, in addition to stipends for two years, and study within science, technology, engineering, and mathematics fields. While at Delaware State University, she earned her Master of Science degree in Applied Mathematics. After graduating with her master's degree, she

served as a part-time mathematics instructor at Delaware State University and Wilmington University for two years. She taught several math classes but mainly developmental math courses. While teaching, she recognized that she has a deep love to teach mathematics to students who did not receive a strong foundation of it while in high school and because of that, these students tend to fear careers in STEM. It is her goal to help these students understand the true fundamentals of math, its basic real life application and hopefully help them to obtain a love for this amazing field of science. It is a great passion of hers to teach at mainly minority populated higher-education institutions because it gives her a chance to be a mentor and role model to students who might not have had someone in their life to show them pathways in STEM and how to achieve that. In 2016, she was hired at Community College of Philadelphia as a fulltime instructor. Beyond teaching, she has worked in other organization such as the AMP program and served in several communities with the department.

**Tamika L. Wilson-Byrd**, *Senior Analyst for Contract Manufacturing, Campbell Soup Company*

Tamika L. Wilson-Byrd, born and educated in Philadelphia, began her higher academic career at Community College of Philadelphia where she completed multiple degrees including an Associates in Mathematics and in Engineering. During her time there, she Co-founded the college's chapter of the National Society of Black Engineers, the first, nationally of its kind. She was also recognized as Who's Who for Junior Colleges, worked closely with Philadelphia L.E.A.D.S, and was an active member in Alliance for Participation (AMP). And through AMP, Tamika was afforded the opportunities to participate in multiple research projects at Temple University and University of Pennsylvania. Tamika continued her education at Drexel University, where she began research with Dr. Gossett Campbell. This research was a turning point for her because it gave her the opportunity to be one of the first African American women in undergrad to become first author of a publication at her University. This accomplishment was later recognized in local newspapers and magazines, earned her awards for Outstanding Alumnus of Community College NSBE Chapter, Student of the Year from Drexel University, and even a slot in a Community College of Philadelphia's Presidential report. This opened many doors including an opportunity at Monell Chemical Senses Center where she began working part-time focusing on the chemosensory function of smell. Upon receiving a degree in Business in Engineering and minoring in Operations management, she took a full-time job at Monell Chemical Senses where she aided in publishing 3 additional publications before leaving to go to Corporate American. After holding 3 positions during her 5-year tenure at American Water, she accepted a position at Campbell's Soup where she is and is currently working as a Senior Analyst for Contract Manufacturing.

**Sam Woods Thomas**, *Director of Life Science and Biotechnology, City of Philadelphia Department of Commerce*

Sam Woods Thomas is the Director of Life Science and Biotechnology for the City of Philadelphia Department of Commerce. In this role, he is responsible for the attraction, retention, and growth of Philadelphia Life Sciences Companies. He also oversees strategic initiatives in the Life Sciences including workforce development efforts. Sam has worked for the Department of Commerce since 2017. Prior to joining the Commerce team, Sam worked for the New Kensington Community Development Corporation where he oversaw economic development strategies in the Philadelphia neighborhoods of Kensington, Fishtown, and Port Richmond. Prior to moving to Philly, Sam lived in and worked in his hometown, Pittsburgh. He attended the University of Pittsburgh and received his degree in Urban Studies and Public Policy.

**William H. Wunner, Ph.D.**, *Professor; Director, Academic Affairs; Director of Outreach Education and Technology Training, the Wistar Institute*

Dr. Wunner's entire career has been devoted to biomedical research at The Wistar Institute and, prior to that, in the Departments of Biochemistry and Virology at Glasgow University, Scotland. Dr. Wunner's research has applied biochemistry, cell and molecular biology and virology to investigate initially protein malnutrition in children and subsequently diseases of viral origin, including rabies. His viral diseases research was on Vesicular Stomatitis virus, Respiratory Syncytial virus, and Rabies virus antigens, the organization of viral genes and the structure and function of viral proteins. At Wistar, he was one of the co-developers of a live recombinant rabies vaccine, Raboral V-RG®, for the protection of wildlife, which was approved for release in 1995. In 2000, Dr. Wunner created the Biomedical Technician Training (BTT) Program at The Wistar Institute in partnership with Community College of Philadelphia (CCP) to train students as research assistants, helping them secure research careers in the biomedical and biotechnology fields. He has worked with — and depended on — the support of research assistants and technicians in the laboratory throughout his career. With research assistants, postdocs and staff scientists at Wistar, the BTT Program was developed to provide specific training modules for the students throughout the two-year BTT (pre-apprenticeship) Program, which include an Orientation to Biomedical Technology, Laboratory Practicum and Internship sessions that focus on the science and relevance of techniques used in the research laboratory. Dr. Wunner has been the administrative coordinator for the BTT Program over the past 21 years (2000-2020). Based on this longstanding experience, Dr. Wunner and the leadership team at Wistar developed the Biomedical Research Technician (BRT) Apprenticeship that was approved by the Apprenticeship Council of the Department of Labor & Industry for the Commonwealth of Pennsylvania in May 2017 as the first of its kind in the country. Dr. Wunner graduated with a BA (1960) from Gettysburg College and received his MS (1962) and PhD (1965) in biochemistry from Rutgers, The State University of New Jersey. He received a U.S. Public Health Fellowship for a two-year postdoctoral research program in the Department of Biochemistry at the University of Glasgow, Scotland. There he continued his research on protein malnutrition and taught nutritional biochemistry to medical school students at Glasgow University before joining the Medical Research Council's Virology Unit in the Department of Virology at Glasgow University in 1967. In 1976, Dr. Wunner joined the Rabies Research Unit at The Wistar Institute as an Associate Professor and was made Professor in 1988 and Professor Emeritus in 2017.