Bridging the Gap: Overcoming the Hurdles in Innovation Culture Across Sectors

Science and Engineering Capacity Building / Policy and Global Affairs
New Voices in Sciences, Engineering, and Medicine / Government-University-Industry Research Roundtable

May 5, 2023

Moderator Biographies

Baindu Bayon Paicely, PhD is a Senior Development Officer at VentureWell where she cultivates federal funding relationships to enable institutional growth, particularly in the life sciences. She is also an Adjunct Professor in the Department of Biology at Saint Mary's College of California. Prior to joining VentureWell, Dr. Bayon Paicely was a Principal Consultant for BBC Entrepreneurial Training and Consulting, where she specialized in the NIH and NSF Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs. She is a former AAAS Science and Technology Policy Executive Branch Fellow at the NIH Office of the Director in the Small business Education and Entrepreneurial Development (SEED) Office. Before joining SEED, she worked at the National Center for Advancing Translational Sciences (NCATS) in the Division of Clinical Innovation where she explored commercialization and entrepreneurship at CTSA (Clinical Translational Science Award) hubs. Dr. Bayon Paicely enjoys STEM outreach, mentorship, and driving youth toward solving problems with life science. She is one-half of the science-tech YouTube duo "The STEM SiSTARS" along with her sister. She has earned a myriad of awards throughout her career, including the coveted Indianapolis Business Journal's Forty Under 40. She earned her Ph.D. in Medical & Molecular Genetics from the Indiana University School of Medicine with a focus on the neurogenetics of Alzheimer's disease and transcription factor regulation of beta-secretase. While in New Voices, Dr. Bayon Paicely was the 2021-2022 cohort co-chair. She led the Disrupting Academia working group and the NASEM GUIRR collaborative symposium.

Dr. Michael W. Nestor is Board Director for the Government-University-Industry Research Roundtable at the National Academies of Sciences, Engineering, and Medicine. Dr. Nestor came to the Academies from Johnson & Johnson – Innovation, JLABS, where he helped to drive the development of programs and initiatives to commercialize early-stage companies involved in innovative and translational biotechnology across the global health enterprise at J&J. While sourcing and evaluating early-stage companies for J&J's portfolio, Michael developed new areas of government-industry collaborations between JLABS and NIH, supported the JLABS collaboration with BARDA, and participated as a J&J representative on the BIO Government Relations Committee. He also pursued new strategic industry-academic partnerships with regional academic partners to drive innovation in the external space for J&J.

Before J&J, Michael was Director of Neural Stem Cell Research at The Hussman Institute for Autism where he lead his own laboratory studying autism by creating brain organoids from human induced pluripotent stem cells. His lab developed and pioneered a brain organoid model and developed novel multiplexed high-throughput CRISPR and drug-screening platforms, which he spun out into the company, Autica Bio. Dr. Nestor received his Ph.D. in Neuroscience from The University of Maryland, School of Medicine and completed postdoctoral fellowships at the National Institutes of Health, Rutgers University as an NIH IRACDA Fellow, and at The New York Stem Cell Foundation, where he was also a Staff Scientist.

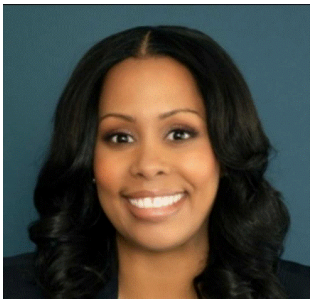
Michael served as a venture advisor to the UM Momentum Fund and the Abell Foundation and was an Early Career Policy Ambassador for The Society for Neuroscience. He served an AAAS SPT Fellow in the Office of

Science, Department of Energy where he focused on crosscutting synthetic biology, artificial intelligence and biosecurity initiatives. This past year, Dr. Nestor authored the book "Anticipatory Ethics and The Use of CRISPR in Humans" published by Springer/Nature. This book constitutes the first anticipatory governance and policy framework for regulating the use of CRISPR to edit genes involved in human cognition.

Dr. Brandy Huderson is a STEM educator with extensive experience in higher education instruction, scientific research, informal STEM education programming, project management, qualitative and quantitative portfolio analysis, program evaluation, and federal grant management. Dr. Huderson is an Assistant Professor at the University of the District of Columbia where her research focuses on steroid receptor biology, in normal and abhorrent systems, as well as STEM Education. Dr. Huderson works in project management, managing federal scholarship programs working increase diversity in STEM. She is also a DEI Consultant with Avent Diversity Consulting, and STEM Innovations, specializing in institutional and organizational change, strategic planning, and program evaluation. Dr. Huderson is a former American Association for the Advancement of Science (AAAS) Science and Technology Policy Fellow (STPF) and was placed at the National Science Foundation (NSF) in the Directorate for Education and Human Resources (EHR).

Dr. B. Huderson has a B.S. in Biology from Xavier University of Louisiana (New Orleans, LA), Masters of Biological Sciences degree with concentrations in Molecular Genetics from the University of New Orleans (LA), and a PhD in Animal Science with a concentration in Dairy Science from Virginia Tech (Blacksburg, VA).

Speaker Biographies



Dr. Tracee Gilbert is the Founder and CEO of System Innovation, which provides digital engineering services and digital technology innovation to help government, educational, and commercial enterprises implement Digital Engineering. Dr. Gilbert has over 24 years of experience leading large-scale initiatives and driving strategy and implementation for digital engineering, engineering research, and engineering programs across various domains. She has held various leadership positions at Lockheed Martin, MITRE, Engility and served as a fellow for the American Association for the Advancement of Science (AAAS) Science and Technology Policy Fellowship (STPF) at Health and Human Services (HHS) and the Department of Defense (DoD). Dr. Gilbert was the contractor lead and chief architect of the DoD Digital Engineering concept and strategy. She also led the initial implementation efforts across the military services, industry, and academia in the Office of the Under Secretary of Defense for Research and Engineering. Dr. Gilbert received her B.A. (Physics, Minor in Japanese) from Lincoln University and her M.S. (Systems Engineering) and Ph.D. (Industrial and Systems Engineering) from Virginia Tech. She chairs the AAAS STPF Advisory Committee, and is a board member of the George Mason University Mechanical Engineering Board, Morgan State University Engineering Executive Council, Boys Town DC, and the American Institute of Physics Team Up Together Campaign Committee.

Terik Tidwell is an award-winning innovator, investing in the capacity of individuals, communities, and organizations. Over the past 17 years, he has worked at the intersection of entrepreneurship, technology, policy, philanthropy, and education facilitating inclusive tech-based economic development. Recently, he received a Fulbright award within the Egyptian Ministry of Higher Education and Scientific Research to develop a roadmap to accelerate innovation, entrepreneurship, and commercialization across the country. Tidwell currently serves as the Director of Inclusive Innovation and interim director of Institutional Transformation at VentureWell, where he leads the development, implementation, and evaluation of strategies, policies, and programs to support innovators and institutions' innovative capacity. Prior to joining VentureWell, Terik was the founding Executive Director of the

Smith Tech-Innovation Center and Director of STEM Innovation Initiatives at Johnson C. Smith University. While at JCSU he developed strategic partnerships and implemented innovative programs to enhance innovation, entrepreneurship, and tech-based economic development. During his six-year tenure, he acquired and managed $19 million in extramural funding from federal agencies, corporations, and philanthropic organizations. His efforts led to the university being recognized as an Innovation Ecosystem Partner and the transition of a successful spinout company. In 2021, Tidwell was elected to a two year term to the joint-board of the Oak Ridge Associated Universities (ORAU) where he facilitated the development of a roadmap for enhancing the innovative capacity for Minority-Serving Institutions. Additionally, he was a frequent consultant to major corporations, foundations, startups, and investors.

In the community, Tidwell is an advisor to the North Carolina Innovative Development for Economic Advancement Foundation and chair of the board for the Foundation for Black Philanthropy. He also serves as an advisor to Harvard Business Review, Greenlight Fund, HBCUvc, and Black Tech Ventures. A New Jersey native, Tidwell is a former Google AI awardee, and a former Global Innovation Fellow and Young Leaders of Americas Initiative (YLAI) Fellow with the State Department. He has been published in IEEE and cited several times in major news outlets. His undergraduate and graduate studies include IT, Finance, Marketing at Monmouth University, Fordham University Graduate School of Business, and UC-Berkeley Law School.

Dr. Talitha Washington is the inaugural Director of the Atlanta University Center (AUC) Data Science Initiative, a Professor of Mathematics at Clark Atlanta University and an affiliate faculty at Morehouse College, Morehouse School of Medicine, and Spelman College. She is the Director and lead principal investigator of the NSF-funded National Data Science Alliance (NDSA) and the President of the Association for Women in Mathematics. She works across Historically Black Colleges and Universities (HBCUs) to increase the number of Blacks with expertise in data science and expand data science research that advocates for social justice.

Dr. Washington is a former Program Director at the National Science Foundation (NSF) who worked in the Convergence Accelerator which is now in the Directorate for Technology, Innovation, and Partnerships (TIP). Previously, as a Program Director in the Division of Undergraduate Education, she was instrumental in building and establishing NSF's first Hispanic-Serving Institutions Program which funded $40,000,000 in awards in FY19.

She was elected to honor societies Phi Beta Kappa and Sigma Xi, and mathematics honor societies Kappa Mu Epsilon and Pi Mu Epsilon. She is the recipient of the 2019 BEYA STEM Innovator Award, the 2019 Outstanding Faculty Award from Howard University, and the 2020 NSF Director's Award for Superior Accomplishment. She is a Fellow of the African Scientific Institute (ASI), the American Mathematical Society (AMS), the Association for Women in Mathematics (AWM), and the American Association for the Advancement of Science (AAAS).

Dr. Washington completed her undergraduate studies in mathematics at Spelman College and studied abroad at the Universidad Autónoma de Guadalajara, Mexico. She earned her master's and doctoral degrees in mathematics from the University of Connecticut. She was a VIGRE Research Associate in the Department of Mathematics at Duke University. She held assistant professorships at The College of New Rochelle and the University of Evansville, an associate professorship at Howard University, and most recently, a full professorship at Clark Atlanta University.

Dr. Washington is an in-demand speaker who enjoys sharing her expertise on applied mathematics as well as STEM diversity to a wide range of audiences. Her work on Dr. Elbert Frank Cox, the first Black in the world to earn a PhD in mathematics, has been shared on radio and television stations, as well as in the Notices of the American Mathematical Society. Her research interests include the applications of differential equations to problems in biology and engineering, as well as the development of nonstandard finite difference schemes to numerically solve dynamical systems.