NATIONAL ACADEMIES Sciences Engineering Medicine

ROUNDTABLE ON BLACK MEN & BLACK WOMEN IN SCIENCE, ENGINEERING & MEDICINE

Engaging Black Men and Black Women in the Breadth of Engineering

Wednesday, October 4, 2023

Gilda A. Barabino, PhD [NAE, NAM], is President of Olin College of Engineering and Professor of Biomedical and Chemical Engineering. She previously served as Daniel and Frances Berg Professor and Dean at The City College of New York's (CCNY) Grove School of Engineering. Prior to joining CCNY, she was Associate Chair for Graduate Studies and Professor in the Wallace H. Coulter Department of Biomedical Engineering at Georgia Tech and Emory. At Georgia Tech she also served as the inaugural Vice Provost for Academic Diversity. She is a noted investigator in the areas of sickle cell disease, cellular and tissue engineering, and the role of race/ethnicity and gender in science and engineering. Dr. Barabino is Past President and Board Chair of the American Association for the Advancement of Science (AAAS), the world's largest multidisciplinary scientific society. She is a Fellow of AAAS, the American Institute of Chemical Engineers, the American Institute for Medical and Biological Engineering and the Biomedical Engineering Society. She is an elected member of the American Academy of Arts and Sciences, the National Academy of Engineering and the National Academy of Medicine She serves on the National Academies Roundtable on Black Men and Black Women in Science, Engineering and Medicine; Health and Medicine Division Committee; and Committee on Women in Science, Engineering and Medicine, which she chairs. Recently, she co-chaired the groundbreaking NASEM report on Advancing Antiracism, Diversity, Equity and Inclusion in STEM Organizations. She received her PhD in Chemical Engineering from Rice University and BS in Chemistry from Xavier University of Louisiana.

Sohi Rastegar, PhD is Senior Advisor and the Head of the Office of Emerging Frontiers and Multidisciplinary Activities (EFMA) at the U.S. National Science Foundation (NSF) Directorate for Engineering. He joined NSF in November 2003 following academic and administrative service at Texas A&M University, Virginia Commonwealth University, and the Johns Hopkins University. He has been an Invited Professor at the Swiss Institute of Technology in Lausanne (EPFL), Switzerland. He earned his B.S. (Highest Honors) and M.S. in Aerospace Engineering, and his Ph.D. in Biomedical Engineering at the University of Texas at Austin. Dr. Rastegar has over 150 scientific publications and presentations and has trained 8 Ph.D. and 14 M.S. students. He was a co-founder of BioTex, Inc., a medical device company in Houston, Texas. He is a Fellow of the American Institute for Medical and Biological Engineering (AIMBE), a Fellow of the American Society for Lasers in Medicine and Surgery (ASLMS), has served as the Chair of the Bioengineering Division of ASME, Associate Editor of Annals of Biomedical Engineering, a member of the Editorial Boards of the Journals of Biomedical Optics and Journal of Diabetes Science and Technology. Dr. Rastegar is the recipient of awards and honors including the Select Young Faculty Award from the

Texas Engineering Experiment Station, and Director's Distinguished Service Award–the highest internal award–from the National Science Foundation.

KEYNOTE SPEAKER

Aprille Ericsson, PhD

On September 28th, President Joe Biden announced the nomination of Dr. Ericsson to serve as key leaders in his Administration. Dr. Ericsson will be the Assistant Secretary of Defense (Science and Technology), Department of Defense.

Aerospace engineer and instrument manager Dr. Aprille Ericsson has served a New Business Lead at NASA's prestigious Goddard Space Flight Center. She became the first African American female to receive a Ph.D. in Mechanical Engineering from Howard University (Washington, DC), and the first African American female at NASA's Goddard Space Flight Center to receive a Ph.D. in Engineering. Throughout her career at NASA Goddard, she has made many notable contributions, including as the projector manager for the Lunar Orbiter Laser Altimeter aboard the Lunar Reconnaissance Orbiter that has been orbiting the Moon since 2009, and the ICESat-2 Atlas (Ice, Cloud, & Land Elevation Satellite) that provides measurements over the ice sheets of Greenland and Antarctica to quantify changes in ice-sheet mass that impact global sea level.

She has been recognized as one of the Top 50 Minority Women in Science and Engineering by the National Technical Association and has received the NASA Goddard Honor Award for Excellence in Outreach, the Washington Award for engineering achievements that advance the welfare of mankind, and a Science Trailblazers award from the Black Engineers of the Year Award Conference.

She has served as an Adjunct Faculty member at several Universities. She has served on academic boards at the National Academies (Board of Higher Education and Workforce), MIT (Industry Advisory Council for Minority Education), Chair of the Advisory Board for Howard University (HU) Department of Mechanical Engineering and previously as a HU Trustee and Blacks at MIT. She is lead advisor for the DMV NSBE Jr. Chapter at HU. Dr. Aprille Ericsson has served as an MIT Education counselor for the almost 15 years. She has also been a proposal reviewer for NSF and NASA. Dr. Aprille Ericsson received her Bachelor of Science in Aeronautical/Astronautical Engineering from MIT. She received her Master of Engineering and Ph.D. in Mechanical Engineering at HU with an Aerospace option. Her graduate school research at HU was developing control methods for orbiting large space platforms like ISS.

SESSION I: LEARNING FROM THE PAST TO BUILD THE FUTURE

James Holly Jr., PhD - University of Michigan

Dr. James Holly Jr. is a Detroiter, educator, and researcher focused on counteracting anti-Black racism in engineering. He has a bachelor's degree from Tuskegee University and a master's degree from Michigan State University, both in Mechanical Engineering, which inspired his pursuit of a doctoral degree in Engineering Education from Purdue University. His work involves advocating for asset-based teaching practices in pre-college engineering education and thinking through ways engineering content can be used to train engineering students to counteract injustices prevalent in Black communities. Dr. Holly, Jr. is currently an Assistant Professor of Mechanical Engineering at the University of Michigan, where his

research examines systemic racism's reproduction of inequity in educational outcomes for Black engineering students.

DeAnna Bailey, DEng - Morgan State University

Dr. DeAnna Bailey is a faculty member of the Department of Electrical and Computer Engineering at Morgan State University. Dr. Bailey has an academic background in Electrical Engineering (B.S in Electrical Engineering and Doctor of Engineering). Dr. Bailey studies African history, culture, traditions for the purpose of reconceptualizing engineering for African/Black people in the 21st century. She researches, develops, implements and examines effective methods of teaching STEM to African (American) youth. At her university she teaches electrical engineering from an African-centered perspective. Additionally, she designs, implements, and directs pre-college engineering programs based on her methods that specifically target African (American) youth due to low representation of African (Americans) in STEM. Dr. Bailey currently serves as the Principal Investor (PI) for an National Science Foundation (NSF) awarded proposal that is examining the impact of African-Centered STEM education (ACSE). Her aim is to increase the participation of African (Americans) in STEM by combating systemic racism within STEM education by introducing innovative teaching techniques and centered curricula to the engineering education research community. Dr. Bailey's work has been published by notable engineering education journals and conferences , specifically the Journal of Pre-College Engineering Research (J-PEER), American Society for Engineering Education (ASEE) and the National Society for Black Engineers (NSBE).

Keith Holmes - Global Black Inventor Research Projects, Inc.

Keith Holmes, researcher and founder, has spent over thirty years researching inventors of color. His company, Global Black Inventor Research Projects, Inc., which began in Brooklyn, New York and now has branches in six continents, provides a canopy under which students of all ages can expand their perspectives on African creativity and spark their inventive genius. Holmes is also the author of Black Inventors, Crafting Over 200 Years of Success, his first book that he wrote back in July 2008. The book highlights the innovative accomplishments of black men and women from six continents and over seventy countries.

In his book, Holmes recognizes the pioneering work of Henry E. Baker, an African American who attended the United States Naval Academy and worked as a copyist with the United States Patent Office in the early twentieth century. Mr. Baker's interest and research opened the door to the idea that men and women of color throughout the world had filed for patents. Although western countries have a system of filing patents, not all inventions are registered in patent offices. His research proved that the invention bug did not only burrow into the African-American imagination but also into that of Africans in the Diaspora. For more information about his book and his other efforts to promote the accomplishments of Black inventors, visit GlobalBlackInventor.com.

SESSION II: ENGINEERING EQUITY FOR THE BLACK COMMUNITY

Yolanda Rankin, PhD – Florida State University

Dr. Yolanda A. Rankin is currently an Associate Professor in the School of Information at Florida State University. A recipient of the NSF Early Career Award, Dr. Rankin's research interests include applying Black feminist epistemologies as critical frameworks for designing technology with marginalized or underserved populations and developing strategies for broadening participation in K-16 computing education. In addition, she is a McKnight Fellow and a Woodrow Wilson Fellow, having published more

than 40 peer-reviewed publications, including journal articles, conference papers, and book chapters in reputable conferences and journals. Prior to academia, she accumulated more than fifteen years of industry experience while employed at IBM Research Lab – Almaden in San Jose, CA and Lucent Technologies Bell Labs in Naperville, IL. Dr. Rankin completed her Ph.D. in Computer Science at Northwestern University, her M.A. in Computer Science at Kent State University, and her B.S. in Mathematics at Tougaloo College, a historically Black college in Jackson, Mississippi.

Traceé Strum-Gilliam – PRR, Inc.

Traceé Strum-Gilliam, AICP, is Senior Director of East Coast Business Development and Transportation Sector Lead for PRR, inc. She also focuses on strategic planning, environmental justice analysis, grassroots outreach, and consensus building on high-profile projects throughout the Mid-Atlantic Region. Strum-Gilliam is a national expert in environmental justice analysis and outreach, with more than 25 years of experience in transportation planning projects. She is currently a Senior Director at PRR where she is responsible for the East Coast Transportation Practice and serves as the firm's environmental justice practice lead. As a public involvement practitioner focused on grassroots outreach and consensus building, Strum-Gilliam manages public involvement programs and conducts Title VI analysis, including the development of outreach programs to reach limited-English proficient populations. She offers technical expertise in community impact assessment and conducts peer reviews for complex projects. She is a member of Women's Transportation Seminar and involved in two Transportation Research Board Committees—as the co-chair for the Equity in Transportation (AME10**) committee and as a member of the Community Resources and Impacts (AME80) committee.**

Sheena Erete, PhD – University of Maryland, College Park

Dr. Erete, an Associate Professor in the College of Information at the University of Maryland-College Park, is a researcher, educator, designer, and community advocate, whose research focuses on co-designing socio-cultural technologies, practices, and policies with community residents to amplify their local efforts in addressing issues such as violence, education, civic engagement and health. The objective of her work is to create more just and equitable outcomes and futures for those who have historically and who currently face structural oppression. Examples of her most notable works have been the co-design of mobile technologies to support street outreach workers for violence prevention and co-founding Digital Youth Divas, an out-of-school program aimed at encouraging Black and Latina middle school girls and their families to engage in science, technology, engineering, arts, and math (STEAM). Her research has won several best paper awards in top venues such as ACM CHI, CSCW, and SIGCSE as well as a diversity and inclusion award for her collaborative work dissecting oppression that exists in the field of computing, HCI, and design.

Frederick Paige, PhD – Virginia Tech

Dr. Paige, Assistant Professor of Civil and Environmental Engineering, serves as the faculty lead of the STILE research group at Virginia Tech. The STILE research agenda is focused on informing society on STEM topics critical to making informed decisions. Our research investigates impactful solutions for educators and infrastructure designers. To explore a broad range of topics, the STILE research group is open to collaboration across disciplinary boundaries and geographic locations. He joined Virginia Tech in 2016. Dr. Paige's research focuses on informing society on STEM topics critical to making informed decisions. His research as the faculty lead of the STILE research group investigates impactful solutions for educators and infrastructure designers. His main scholarship goal is to create the knowledge needed to develop an

informed public that lives in a sustainable built environment. His main areas of work focus on social phenomena related to high-efficiency homes and sustainable communities.

Dr. Paige also serves as the Assistant Director for the Virginia Center for Housing Research. Previously, Dr. served as a Research Scientist within Virginia Tech before joining the Vecellio Construction Engineering and Management Program. Dr. Paige holds a B.S., M.S and Ph.D. in Civil Engineering from Clemson University.

SESSION III: REPAIRING THE BREACH AND MOVING FORWARD RESPONSIBLY

Arthur Edge – AstraZeneca

As a Global Supply & Strategy Director at AstraZeneca (AZ), Arthur works to place life-changing products into the hands of patients who need them. With accountability for end-to-end clinical and commercial supply, his focus is on increasing access to existing medicines and improving how fast next generation medicines become available. Prior to AZ, Arthur developed a broad array of experiences supporting advancements in medicine and technology. While at GlaxoSmithKline (GSK), he built robust manufacturing processes to ensure patients never ran out of the first drug developed specifically for lupus. At Emergent BioSolutions, he created new vaccines and therapies to help the US Government quickly respond to Zika and Ebola outbreaks. And in search of renewable energy sources, he designed biofuels from algae at DSM.

When not pushing biotech solutions, Arthur actively searches for opportunities to build science-based ventures and to grow the STEM talent pipeline. He's led workforce development and big data initiatives with the National Institute for Innovation in Manufacturing of Biopharmaceuticals (NIIMBL). Locally, in Maryland, he serves as President of the Manufacturing, Engineering, & Technology advisory board for Montgomery County Public Schools. Nationally, he serves as the National Professional Chair Emeritus for the National Society of Black Engineers (NSBE). Arthur holds a Bachelor of Chemical Engineering (University of Michigan) and Master of Chemical and Biomolecular Engineering (Johns Hopkins University).

Brooke Coley, PhD - Arizona State University

Brooke C. Coley, Ph.D., is Founding Executive Director of the Center for Research Advancing Racial Equity, Justice, and Sociotechnical Innovation Centered in Engineering (RARE JUSTICE)—an unprecedented testbed for innovating and modeling antiracist and equitable engineering futures—and Assistant Professor of Engineering, both at Arizona State University. Across several national projects funded primarily by the National Science Foundation, Dr. Coley's research lies at the intersection of racial equity, mental health and qualitative research encompassing critical theory, community-based participatory action, and arts-based research methods. Her work is anchored in an intentional amplification of the voices of minoritized populations in STEM with the goal of informing disruption of the pervasive systemic inequities found in racialized organizations such as institutions of higher learning. Leveraging the outcomes of this work, Dr. Coley will continue to create exemplars of equity in action across realms of the academic enterprise—lived experience and restorative justice, scholarship generation and metrics, and rewards systems and structures. Dr. Coley recently received the 2021 Diversity and Inclusion Award from the Ira A. Fulton Schools of Engineering for her commitment to creating and fostering a diverse and inclusive environment. Dr. Coley earned her Doctor of Philosophy degree in Bioengineering with a concentration in

Biomechanics from the University of Pittsburgh. She also completed her Bachelor of Science in Chemical Engineering at the University of Maryland Baltimore County as a Meyerhoff Scholar.

Frederick Paige, PhD – Virginia Tech

Biography above

Rochelle Williams, PhD – National Society of Black Engineers

Dr. Rochelle Williams is an engineer, educator, and advocate for equitable work environments in science, technology, engineering, and mathematics (STEM) professions. Dr. Williams is the Chief Programs and Membership Officer at the National Society of Black Engineers (NSBE), whose mission is to increase the number of Black engineers who excel academically, succeed professionally, and positively impact the community. In this role, she is responsible for achieving the strategic outcomes of the society and for supporting the planning and implementation of the programs for the Pre-Collegiate, Collegiate and Professional demographics.

Prior to joining NSBE, Dr. Rochelle served as Project Director and Co-Principal Investigator for the ADVANCE Resource Coordination (ARC) Network with the Association for Women in Science (AWIS) and Research Scientist in the Office for Academic Affairs at Prairie View A&M University. In 2016, Rochelle was selected as a Christine Mirzayan Science and Technology Policy Fellow with the National Academies of Science, Engineering, and Medicine in Washington, DC. She currently serves as the President-elect of WEPAN.

Having received her Bachelor of Science in physics from Spelman College and both her Master of Engineering in Mechanical Engineering and Ph.D. in Science and Mathematics Education from Southern University and A&M College, Dr. Williams intentionally works to promote the excellence and innovation at Historically Black Colleges and Universities.

SESSION IV: DESIGNING A BRIGHT FUTURE FOR THE DIASPORA

Latonia Harris, PhD [NAE] - The Janssen Pharmaceutical Companies of Johnson and Johnson

Latonia Harris, Ph.D. is Senior Director of Product Quality Management (PQM) for BioTherapeutics at Janssen Pharmaceutical Companies of Johnson and Johnsons. Dr. Harris previously served as a CMC Leader within Janssen R&D Portfolio Management group where she was the strategic leader of a multidisciplinary team focused on developing processes for and gaining regulatory approval of several large molecule oncology therapies. For over three decades, Dr. Harris has been committed to supporting outreach in STEM education at all levels: K-12, university, and business. She has mentored dozens of individuals who aspire to careers in science, engineering or medicine.

Dr. Harris is a member of the NAE where she currently serves as Chair of the Peer Committee for Bioengineering. She is also a member of NAE Bio/Pharma President's Business Advisory Committee (PBAC). Latonia Harris holds a Ph.D. in Chemical Engineering (Northwestern University) and a BSE in Chemical Engineering (University of Michigan - Ann Arbor).

Whitney Gaskins, PhD – University of Cincinnati

Whitney Gaskins, Ph.D. is the Associate Dean of Inclusive Excellence and Community Engagement in the University of Cincinnati College of Engineering and Applied Science, the only African-American female currently teaching in the faculty of the College of Engineering. Whitney earned her Bachelor of Science in Biomedical Engineering, her Masters of Business Administration in Quantitative Analysis and her Doctorate of Philosophy in Biomedical Engineering/Engineering Education. In her role as Associate Dean, Dr. Gaskins has revamped the summer bridge program to increase student support and retention as well as developed and strengthened partnerships in with local area school districts to aid in the high school to college pathway. She serves as the Principal Investigator for both the Choose Ohio First Program (COF) and Ohio LSAMP grants. Through these grant programs the students receive competitive scholarship funding and professional development workshops which help prepare them to enter into the STEMM workforce.

In 2009, she founded The Gaskins Foundation, a non-profit organization, whose mission is to educate and empower the African American community. Her foundation recently launched the Cincinnati STEMulates year round K-12 program, which is a free of charge program that will introduce more students to Math and Science. She was named the 2017 K12 Champion by the National Association of Multicultural Engineering Program Advocates (NAMEPA). In 2015, Dr. Gaskins was awarded the Janice A Lumpkin Educator of the Year Golden Torch Award. In 2019, she was recognized by the Greater Cincinnati Chamber as a Black History Maker. She was a recipient of the Dr. Terry Kershaw Faculty Excellence Award and the Excellence in Teaching Award from the University of Cincinnati for her innovative honors course Sticky Innovation (stickyinnovation.com). She was inducted in the 40 under 40 class of 2019 and was recognized as a YWCA 2021 Career Woman of Achievement.

Christine S. Grant, PhD – North Carolina State University

Dr. Christine Grant is a Fellow, Life Member, and the 2022 President of the American Institute of Chemical Engineers (AIChE); a global organization of 60,000+ members in 110 countries. A Professor of Chemical and Biomolecular Engineering at North Carolina State University for over 32 years, she has conducted research in surface and interfacial science; advising postdocs and students ranging from the high school to the graduate student level. She served as the inaugural Associate Dean of Faculty Advancement for 12 years. In this role, Grant was responsible for faculty development, promotion, and tenure processes in the College of Engineering at NC State. She received an Sc.B. in Chemical Engineering from Brown University. She also has M.S. and Ph.D. degrees, both in Chemical Engineering, from the Georgia Institute of Technology. She's also been a Visiting Professor at Duke, Caltech and the University of Minnesota. Grant previously served AIChE as a member of the following: Board of Directors, Chemical Technology Operating Council (CTOC), Environmental Division, National Awards and Nominating Committees, and the Henry & Melinda Brown Endowment Steering Committee. She has also been Chair of the Minority Affairs Committee.

For decades, Grant has been recognized for broadening the participation, promotion, and retention of underrepresented minorities and women in STEM. Her recognition includes the following: AAAS Mentor Award (2015); NSF Presidential Award for Excellence in Science, Math and Engineering Mentoring (PAESMEM) (2003); William W. Grimes Award for Excellence in Chemical Engineering (AIChE Minority Affairs Committee) (2019); Dr. Joseph N. Cannon Award for Excellence in Chemical Engineering from the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE) (2019); Women in Engineering Pro-Active Network (WEPAN) Bevlee A. Watford Inclusive Excellence Award (2017); American Chemical Society (ACS) Stan Israel Award for Diversity: SERMACS

(2012); Sigma Xi Scientific Research Society (2010); and the Council for Chemical Research (CCR) National Diversity Award (2009). She is also a Life Member of AAUW, SWE, NSBE, NCNW and AISES.

In the realm of STEM education and policy, Grant was a Boeing Senior Fellow of the National Academy of Engineering's Center for the Advancement of Scholarship on Engineering Education (CASEE). She's also been a Visiting Senior Scholar at AAAS and a Grant Expert and Program Director at the National Science Foundation (NSF). She has also been active as a PI on multiple NSF ADVANCE grants and served on the advisory board (or consulted with) several ADVANCE schools, including Texas A&M University, Cornell University, Lehigh University, University of New Hampshire, and the University of Cincinnati. In this role, she promoted institutional transformation in STEM fields. An international speaker, Grant conducts career coaching and professional development workshops across the U.S., in Ghana and Australia. Her consulting company (stemresilience.com) designs custom, targeted STEM programming for groups and individuals in corporate and academic environments. She is also co-editor of the book, "Success Strategies from Women in STEM: A Portable Mentor" by Elsevier/Academic Press. She has contributed chapters to "Growing Diverse STEM Communities: Methodologies, Impact and Evidence" (2019) and the ACS Book "Overcoming Barriers for Women of Color in STEM Fields" (2020).

Sandra Johnson, PhD – SKJ Visioneering, LLC

Sandra K. Johnson is the Founder and CEO, SKJ Visioneering, LLC, a technology consulting company. She is an Independent Director on both Regional Management Corporation's (NYSE:RM) Board of Directors, and Pan-American Life Insurance Group's Board. Her previous career included 26 years at IBM, including Chief Technology Officer (CTO), IBM Central, East and West Africa, and CTO, IBM Global Small and Medium Businesses. She has been a Business Development Executive with IBM Middle East and Africa (MEA), where she also founded MEA's first patent review board for IBM employees.

In addition to these roles, Dr. Johnson has been the IBM Linux Performance Architect, Manager, IBM's Linux Performance team and its WebSphere Database Development team, and a Research Staff Member at the IBM T. J. Watson Research Center. She has a high-performance computing background and has conducted research in several computer performance-related areas. She was a member of the IBM Academy of Technology, which consisted, at the time, of the top 1% of IBM's over 200K technical professionals. She was part of the IBM Research design team that created the prototype for Deep Blue, IBM's world-famous chess machine. Dr. Johnson has received numerous technical and professional awards and is a Master Inventor with 50 issued and pending patents.

She has authored and co-authored over 80 publications and is Editor-in-Chief of the book *Performance Tuning for Linux Servers.* In addition, she has authored *Inspirational Nuggets, Inspirational Nuggets Too, and GREGORY: The Life of a Lupus Warrior*. She has written her memoir, *Soft Power for the Journey: The Life of a STEM Trailblazer*, to be published in April 2024.

Dr. Johnson has an expert certification in Security+ from CompTIA and a director certification with the National Association of Corporate Directors (NACD.DC).

She was awarded a certificate of completion for the Power, Innovation and Leadership Program, April 2023, John F. Kennedy School of Government at Harvard University, Executive Education. She has received a Rice University Laureates Award as a Distinguished Alumni. Dr. Johnson earned B.S. (*summa cum laude),* M.S. and Ph.D. degrees in electrical engineering, from Southern University, Stanford University,

respectively, and a Ph.D. in electrical and computer engineering from Rice University. As a result, she became the first African American woman to earn a Ph.D. in electrical and computer engineering. She is a member of the Institute of Electrical and Electronics Engineers (IEEE), an IEE Fellow, and the Association for Computing Machinery (ACM), an ACM Distinguished Engineer.

Kwadwo Osseo-Asare, PhD [NAE] - Pennsylvania State University

Kwadwo Osseo-Asare is Distinguished Professor of Materials Science & Engineering and of Energy & Geo-Environmental Engineering at Penn State University. He was educated at Achimota School (Ghana) and University of California (Berkeley). He has been visiting professor or academic visitor at several universities worldwide, including in Australia, Brazil, Ghana, Japan, Nigeria, South Africa, Tanzania, UK, US, and Zimbabwe. He specializes in aqueous process engineering, especially hydrometallurgy, materials synthesis and processing, and nanoscience. He is a member of the US National Academy of Engineering and the Brazilian Academy of Sciences. He received the Materials Research Society's Impact Award (2022).

He is Senior Advisor (Mzee) for Penn State's Alliance for Education, Science, Engineering and Design with Africa (AESEDA; https://aeseda.psu.edu/leadership-team/; https://aeseda.psu.edu/africentric-engineering/). His blog aqueousolutions focuses on science, technology, and sustainable development (http://aqueousol.blogspot.com). Lately, he has been experimenting with teaching and learning engineering with African proverbs. "Isikhuni esingaziwayo asithezwa - You do not burn a log from a tree you do not know (Ndebele)."

Manu O. Platt, PhD – National Institute of Biomedical Imaging and Bioengineering

Manu O. Platt, Ph.D., is director of the NIH-wide Center for Biomedical Engineering Technology Acceleration (BETA Center), housed within the National Institute of Biomedical Imaging and Bioengineering (NIBIB) Intramural Research Program. The BETA Center serves as a model to bring a focused engineering approach for NIH researchers across disciplines to accelerate the development, validation and dissemination of cutting-edge technologies As the BETA Center director, Platt will work to expand opportunities for biomedical engineering training and professional growth, including supporting individuals from diverse backgrounds. In addition, Dr. Platt is NIBIB associate director for Scientific Diversity, Equity and Inclusion. Formerly, Dr. Platt was professor and Associate Chair of Graduate Studies in the Walter H. Coulter Department of Biomedical Engineering at the Georgia Institute of Technology and Emory University. He also was Georgia Research Alliance Distinguished Cancer Scientist and Deputy Director, Interdisciplinary Bioengineering Graduate Program at Georgia Tech Walter H. Coulter Distinguished Faculty Fellow.

As a scientific investigator for cutting-edge biomedical research projects, Platt has received numerous grants and research support from NIH, the National Science Foundation, the International AIDS Society and the Georgia Cancer Coalition, among other public and private research institutions. He has served on numerous review committees at NIH, is a member the Biomedical Engineering Society board of directors and is a former member of the NIBIB National Advisory Council for Biomedical Imaging and Bioengineering.

Dr. Platt earned a bachelor's degree in biology from Morehouse College in Atlanta and a Ph.D. in biomedical engineering at the Georgia Institute of Technology and Emory University in Atlanta. He was a postdoctoral fellow in biological engineering at the Massachusetts Institute of Technology, Cambridge.

A nationally-recognized leader in expanding diversity and inclusion in science, technology, engineering, and mathematics, Platt is the recipient of numerous awards and honors, including the NIH Director New Innovator award, an American Association for the Advancement of Science Mentor award, and the Biomedical Engineering Society Diversity Award. He co-founded Project ENGAGES: Engaging New Generations at Georgia Tech through Engineering and Science, which provides paid research lab experience for Atlanta area African American high school students, and directed the Georgia Tech Enhancing Science, Technology, Engineering, and Math Educational Diversity grant program, an NIH training program to increase and support diversity at the undergraduate level. Platt is a fellow of the Biomedical Engineering Society and the American Institute for Medical and Biological Engineering.