ROUNDTABLE ON

BLACK MEN &

BLACK WOMEN

IN SCIENCE, ENGINEERING, & MEDICINE

Reducing Financial Barriers for Black Students in Science, Engineering, and Medicine: A Workshop

April 19-20, 2021

The National Academies of

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April 19-20, 2021

via ZOOM Webinar
9:30 AM – 5:00 PM EST

https://www.eventbrite.com/e/reducing-financial-barriers-for-black-students-in-sem-registration-149268521165

9:30 AM EST **Opening Remarks and Introductions**

Victor Dzau, M.D.
President, National Academy of Medicine

Cato T. Laurencin, M.D., Ph.D.
Chair of the Roundtable

Gilda Barabino, Ph.D.
George Q. Daley, M.D., Ph.D.
Theodore Corbin, M.D., MPP
Louis Sullivan, M.D.
Marc Nivet, Ed.D.
Co-Chairs of the Finance and Public Engagement Action Groups

SESSION I: TALENT ACQUISITION/BEING A PROBLEM-SOLVING SOCIETY

Moderator: George Q. Daley, M.D., Ph.D.

10:00 AM ***Presentations***

Session Objectives:
Update on the current state of affairs for Blacks/African American in the health professions and science and engineering fields. Understand the black-white wealth gap and how this impedes progress of African-Americans in science related careers. Describe the historical context of the impact on federal funding in support of African-Americans pursuing a career in medicine, science and engineering fields. Highlight best practices of financial support of college students interested in careers in medicine and engineering.

Louis Sullivan, M.D.
Raj Chetty, Ph.D.

11:00 AM **Q&A**

SESSION II: ENGAGING PUBLIC TO IMPART CHANGE

Moderator: Theodore Corbin, MD, MPP

11:30 AM ***Presentations***

Session Objectives:
To explore solutions that worked in the past to build and invest in Black students pursuing careers in science, engineering and medicine. Promotion of policies to ensure the support of programs for science, engineering and medicine. Identify the power/authoritative entities to make change.

David Satcher, MD, PhD
Sonsiere Cobb-Souza

12:30 PM **Q&A**

1:00 PM - 1:30 PM **Break for Lunch**

SESSION III: CRETAING OPPORTUNITIES FOR THE FUTURE

Moderator: Theodore Corbin, MD, MPP

1:30 PM ***Presentations***

Session Objectives:
This session will examine the opportunities to eliminate debt burden while exploring the opportunities and contingencies in science engineering and medicine for Black men and Black women. The panelists will discuss the efforts taking place at their respective institutions/organizations and across the country.

Geoffery Young, Ph.D.
Sylvester James Gates Jr., Ph.D.
Garth Graham, M.D., Ph.D.

2:30 PM **Q&A**

SESSION IV: FELLOWSHIPS, PHILANTHROPY AND INDUSTRY

Moderator: James Hildreth, Ph.D.

3:00 PM ***Presentations***

Session Objectives:
This session is meant to explore the role of industry, foundation and philanthropic financing to advance the goal of greater diversity and inclusion in SEM fields. The speakers will review the progress to date and how their specific interventions endeavor to change the landscape for the future, with highlights on measurable outcomes and objectives.

Garnesha Ezediaro (Bloomberg Foundation)
Michele Lezama, MS, MBA (NACME)
Anthony B. Iton, MD, JD, MPH (California Endowment)

4:00 PM **Discussion with Roundtable Members**

4:30 PM **Final Thoughts of the Day (Co-Chair Remarks)**

5:00 PM **Day One Adjourned**

Day Two

SESSION V: LIVE, GROW AND THRIVE IN INSTITUTIONS OF HIGHER LEARNING AS A STANDARD

Moderator: Theodore Corbin, MD, MPP

1:15 PM ***Presentations***

Session Objectives:
This session will speak to the innovative programs and processes in institutions to promote success in Black students interested in science, engineering and medicine. The panelists will describe the unique programs that support such success in Black students.

Maureen Cullens, AM
Wynter Duncanson, PhD
Craig Sutton, Ph.D.
Byron Ford, Ph.D.

QUESTIONS**:**
What are your best practices and outcomes?
What lessons can be learned for scaling?

2:15 PM **Discussion**

2:45 PM **Break**

SESSION VI: THE POLICIES, PROGRAMS AND RESOURCES

Moderator: Gilda Barabino, Ph.D.

3:00 PM **"Fireside" Chat with Dr. Michelle McMurry-Heath**

3:45 PM **Remarks from Rep. Eddie Bernice Johnson**

4:00 PM **Closing Discussion and Remarks**

4:30 PM **Day Two Adjourn**

Biographies of Roundtable Members and Speakers

(In Order of Appearance)

Victor J. Dzau, MD, is the President of the National Academy of Medicine (NAM), formerly the Institute of Medicine (IOM). In addition, he serves as Vice Chair of the National Research Council. Dr. Dzau is Chancellor Emeritus and James B. Duke Professor of Medicine at Duke University and the past President and CEO of the Duke University Health System. Previously, Dr. Dzau was the Hershey Professor of Theory and Practice of Medicine and Chairman of Medicine at Harvard Medical School's Brigham and Women's Hospital, as well as Chairman of the Department of Medicine at Stanford University.

He is an internationally acclaimed leader and scientist whose work has improved health care in the United States and globally. His seminal work in cardiovascular medicine and genetics laid the foundation for the development of the class of lifesaving drugs known as ACE inhibitors, used globally to treat hypertension and heart failure. Dr. Dzau pioneered gene therapy for vascular disease and was the first to introduce DNA decoy molecules to block transcriptions in humans in vivo. His pioneering research in cardiac regeneration led to the Paracrine Hypothesis of stem cell action and his recent strategy of direct cardiac reprogramming using microRNA. He maintains an active NIH-funded research laboratory.

In his role as a leader in health care, Dr. Dzau has led efforts in innovation to improve health, including the development of the Duke Translational Medicine Institute, the Duke Global Health Institute, the Duke-National University of Singapore Graduate Medical School, and the Duke Institute for Health Innovation. He has served as a member of the Advisory Committee to the Director of the National Institutes of Health (NIH), chaired the NIH Cardiovascular Disease Advisory Committee and currently chairs the NIH Cardiovascular Stem Cell Biology and Translational Consortia. Currently, he is a member of the Board of the Singapore Health System, member of the Health Biomedical Sciences International Advisory Council of Singapore and Advisory Council of the Imperial College Health Partners, UK. He chairs the International Scientific Advisory Committee of the Qatar Genome Project, chairs the Scientific Boards of the Peter Munk Cardiac Center, University of Toronto and Institute of Cardiovascular and Medical Sciences, University of Glasgow. He was on the Canada Gairdner Award Medical Advisory Board and is now on the Board of Directors of the Gairdner Foundation. He served on the Board of Health Governors of the World Economic Forum and chaired its Global Agenda Council on Precision Medicine.

Since arriving at the National Academies, Dr. Dzau has designed and led important initiatives such as the Commission on a Global Health Risk Framework for the Future; the Human Genome Editing Initiative; and Vital Directions for Health and Health Care. The launch of the NAM Grand Challenge for Healthy Longevity represents his vision to inspire across disciplines and sectors to coalesce around a shared priority and audacious goal to advance health.

Among his many honors and recognitions are the Max Delbreck Medal from Charite, Humboldt and Max Planck, Germany, the Distinguished Scientist Award from the American Heart Association, Ellis Island Medal of Honor, and the Henry Freisen International Prize. In 2014, he received the Public Service Medal from the President of Singapore. He has been elected to the National Academy of Medicine, the American Academy of Arts and Sciences, the European Academy of Sciences and Arts, and Academia Sinica. He has received 16 honorary doctorates.

Cato T. Laurencin, MD, PhD, *(chair)* **(NAM, NAE)** is the University Professor and Albert and Wilda Van Dusen Distinguished Endowed Professor of Orthopaedic Surgery at the University of Connecticut. He is Professor of Chemical Engineering, Professor of Materials Science and Engineering and Professor of Biomedical Engineering at the school. He serves as the Chief Executive Officer of The Connecticut Convergence Institute for Translation in Regenerative Engineering and the Director of the Raymond and Beverly Sackler Center for Biomedical, Biological, Physical and Engineering Sciences at UConn.

Dr. Laurencin earned a B.S.E. in Chemical Engineering from Princeton University, and his M.D., Magna Cum Laude, from the Harvard Medical School, and received the Robinson Award for Surgery. He earned his Ph.D. in Biochemical Engineering/Biotechnology from the Massachusetts Institute of Technology where he was named a Hugh Hampton Young Fellow. A practicing sports medicine and shoulder surgeon, Dr. Laurencin has been named to America's Top Doctors for over fifteen years. He is a Fellow of the American Academy of Orthopaedic Surgeons, a Fellow of the American Orthopaedic Association, a Fellow of the American College of Surgeons and a member of the American Surgical Association. He received the Nicolas Andry Award, the highest honor of the Association of Bone and Joint Surgeons. Dr. Laurencin served as Dean of the Medical School and Vice President for Health Affairs at the University of Connecticut.

Dr. Laurencin is a pioneer of the new field, Regenerative Engineering. He is an expert in biomaterials science, stem cell technology and nanotechnology and was named one of the 100 Engineers of the Modern Era by the American Institute of Chemical Engineers. He received the Founder's Award (highest award) from the Society for Biomaterials, the Von Hipple Award (highest award) from the Materials Research Society and the James Bailey Award (highest award) from the Society for Biological Engineering. He received the NIH Director's Pioneer Award, NIH's highest and most prestigious research award, for his new field of Regenerative Engineering and the National Science Foundation's Emerging Frontiers in Research and Innovation Grant Award. Dr. Laurencin is the Editor-in-Chief of Regenerative Engineering and Translational Medicine, published by Springer Nature, and is the Founder of the Regenerative Engineering Society. He is a Fellow of the American Chemical Society, a Fellow of the American Institute of Chemical Engineers, a Fellow of the Biomedical Engineering Society, a Fellow of the Materials Research Society and a AAAS Fellow. The American Association for the Advancement of Science awarded Dr. Laurencin the Philip Hauge Abelson Prize given 'for signal contributions to the advancement of science in the United States'.

Dr. Laurencin is active in mentoring, especially underrepresented minority students. He received the American Association for the Advancement of Science (AAAS) Mentor Award, the Beckman Award for Mentoring, and the Presidential Award for Excellence in Science, Math and Engineering Mentoring in ceremonies at the White House. The Society for Biomaterials established The Cato T. Laurencin, M.D., Ph.D. Travel Fellowship in his honor, awarded to underrepresented minority students pursuing research. Dr. Laurencin is also active in addressing Health Disparities. Dr. Laurencin completed the Program in African-American Studies at Princeton University. He is a core faculty member of the Africana Studies Institute at the University of Connecticut, and is Editor-in-Chief of the Journal of Racial and Ethnic Health Disparities, published by Springer Nature. He co-Founded the W. Montague Cobb/NMA Health Institute, dedicated to addressing Health Disparities, and served as its Founding Chair. The W. Montague Cobb/NMA Health Institute and the National Medical Association established the Cato T. Laurencin Lifetime Research Achievement Award, given during the opening ceremonies of the National Medical Association Meeting. He is a recipient of the Herbert W. Nickens Award from the American Association for the Advancement of Science recognizing his work advancing social justice and equity.

Dr. Laurencin is an elected member of the National Academy of Medicine, an elected member of the National Academy of Engineering, and an elected member of the American Academy of Arts and Sciences. Active internationally, he is an elected fellow of the Indian National Academy of Sciences, the Indian National Academy of Engineering, the African Academy of Sciences, The World Academy of Sciences, and is an Academician of the Chinese Academy of Engineering.

Dr. Laurencin is the recipient of the National Medal of Technology and Innovation, America's highest honor for technological achievement, awarded by President Barack Obama in ceremonies at the White House. He is the first individual in history to receive the oldest/highest award of the National Academy of Medicine (the Walsh McDermott Medal) and the oldest/highest award of the National Academy of Engineering (the Simon Ramo Founder's Award).

Gilda A. Barabino, PhD, became the second president of Olin College of Engineering, and Professor of Biomedical and Chemical Engineering, on July 1, 2020.

Previously she served as Dean of The Grove School of Engineering at the City College of New York (CCNY). She also served as Daniel and Frances Berg Professor, with appointments in the Departments of Biomedical Engineering and Chemical Engineering, as well as the City University of New York School of Medicine.

A biomedical engineer trained in chemical engineering, with broad interest in global health, systems, and interdisciplinary engineering education, Dr. Barabino is a noted investigator in the areas of sickle cell disease, cellular and tissue engineering. She is an internationally recognized thought leader and highly sought speaker and consultant on race/ethnicity and gender in science and engineering, with particular focus on creating cultures and climates that support a sense of belonging. She has led a number of initiatives in these areas including serving as the founder and Executive Director of the National Institute for Faculty Equity.

Before joining CCNY, she served as Associate Chair for Graduate Studies and Professor in the Wallace H. Coulter Department of Biomedical Engineering at Georgia Tech and Emory University. She also served as Georgia Tech's inaugural Vice Provost for Academic Diversity. Prior to that, she spent 18 years at Northeastern University, rising to the rank of Full Professor of Chemical Engineering and serving as Vice Provost for Undergraduate Education.

Dr. Barabino is an active member of the National Academy of Engineering and the National Academy of Medicine and serves on numerous committees of the National Academies of Science, Engineering and Medicine, including the Committee on Women in Science Engineering and Medicine; the Roundtable on Black Men and Black Women in Science, Engineering and Medicine; the Underrepresentation of Women of Color in Tech Project; the Ad-Hoc Committee for the Gulf Scholars Program; the Committee on Addressing Sickle Cell Disease; and the National Institutes of Health National Institute of Biomedical Imaging and Bioengineering Strategic Planning Working Group. Dr. Barabino also serves as a member of the National Science Foundation's Advisory Committee for Engineering; the congressionally mandated Committee on Equal Opportunities in Science and Engineering; and the American Association for the Advancement of Science Committee on Science, Engineering and Public Policy. Dr. Barabino also serves on the Scientific Advisory Board of the Chan Zuckerberg Biohub.

Her many honors include the American Institute of Chemical Engineers Award for Service to Society (2019); the Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring (2018); the Pierre Galetti Award (2017), the American Institute for Medical and Biological Engineering's highest honor; and an honorary degree from Xavier University of Louisiana (2016).

She is currently the Chair of the American Society of Engineering Education Engineering Deans Council.

She sits on the board of trustees for VentureWell, Associated Universities, Inc., and Xavier University of Louisiana.

Dr. Barabino earned her B.S. degree in Chemistry from Xavier University of Louisiana and her Ph.D. in Chemical Engineering from Rice University.

She is married to Joseph Barabino. They have a son, Jori.

George Q. Daley, MD, PhD, is Dean and Caroline Shields Walker Professor of Medicine at Harvard Medical School. He is also Professor of Biological Chemistry and Molecular Pharmacology. Prior to becoming Dean he was the Director of the Pediatric Stem Cell Transplantation Program at Dana-Farber/Boston Children's Cancer and Blood Disorders Center and an investigator of the Howard Hughes Medical Institute. Daley received his AB, magna cum laude, from Harvard (1982), a PhD in biology from MIT (1989), working with Nobel laureate David Baltimore, and his MD, summa cum laude, from Harvard Medical School (1991). Daley pursued clinical training in internal medicine at Massachusetts General Hospital, where he served as chief resident (1994-1995), and a clinical fellowship in heme/onc at Brigham and Women's Hospital and Children's Hospitals. He remains a staff member in Pediatric Hematology/ Oncology at Boston Children's Hospital. Daley's research uses mouse and human disease models to study cancer and blood disorders. Daley has been elected to the National Academy of Medicine, the American Society for Clinical Investigation, the American Association of Physicians, the American Pediatric Societies, the American Academy of Arts and Sciences and the American Association for the Advancement of Science. He was an inaugural winner of the NIH Director's Pioneer Award (2004), and has won the E. Donnall Thomas Prize of the American Society of Hematology. He was a founding executive committee member of the Harvard Stem Cell Institute, served as president of the International Society for Stem Cell Research (2007-2008), and anchored the special task forces that produced the society's guidelines for stem cell research and clinical translation (2006, 2008, 2016). He was on the organizing committee for both the 2015 and 2018 International Summits on Human Genome Editing and has advocated publicly for responsible international guidelines for attempts at germline genome editing.

Theodore Corbin, MD, MPP, is Vice Chair for Research and an Associate Professor in the Department of Emergency Medicine at the Drexel University College of Medicine. He also serves as the Medical Director of the "Healing Hurt People" Program, an emergency department based, trauma-informed intervention strategy that identifies victims of intentional injury. Dr. Corbin received his Master's in Public Policy from the Woodrow Wilson School at Princeton University. Recipient of the 2017 Drexel University College of Medicine Distinguished Alumni, Dr. Corbin also codirects the Center for Nonviolence and Social Justice at Drexel University School of Public Health, where he holds a joint appointment. He was awarded a Stoneleigh Foundation Fellowship and an Annie E. Casey Foundation grant to explore the impact of PTSD on violently injured youth and young adults, and to evaluate the effectiveness of Healing Hurt People. His work focuses broadly on addressing the trauma in the lives of victims of violence, especially boys and men of color for whom violence is a leading cause of disability and death.

Louis W. Sullivan, MD, is the Chairman and Chief Executive Officer of The Sullivan Alliance to Transform the Health Professions. He is also chairman of the board of the National Health Museum in Atlanta, Georgia, which aims to improve the health of Americans by enhancing health literacy and advancing healthy behaviors. Dr. Sullivan served as chair of the President's Commission on Historically Black Colleges and Universities from 2002–2009 and was co-chair of the President's Commission on HIV and AIDS from 2001 to 2006. With the exception of his tenure as secretary of the Department of Health and Human Services (HHS) from 1989 to 1993, Dr. Sullivan was president of Morehouse School of Medicine (MSM) for more than 2 decades. As Secretary of HHS, Dr. Sullivan's efforts to improve the health and health behavior of Americans included (1) the introduction of a new and improved FDA food label; (2) release of Healthy People 2000, a guide for improved health promotion/disease prevention activities; (3) education of the public about health dangers from tobacco use; (4) successful efforts to prevent the introduction of "Uptown", a non-filtered, mentholated cigarette by R.J. Reynolds Tobacco Company; (5) inauguration of a $100 million minority male health and injury prevention initiative; and (6) implementation of greater gender and ethnic diversity in senior positions of HHS, including the appointment

of the first female director of the NIH, the first female and first Hispanic Surgeon General of the U.S. Public Health Service, and the first African American Commissioner of the Social Security Administration.

Marc Nivet, Ed.D., M.B.A., is the executive vice president for institutional advancement at UT Southwestern Medical Center. In this capacity, he provides strategic vision and oversight for the areas of development, communications, marketing and public affairs, government affairs, and community and corporate relations.

Prior to his role at UT Southwestern, Dr. Nivet served as a member of the executive leadership team of the Association of American Medical Colleges, where he provided leadership on issues surrounding community engagement, diversity, and health equity at medical schools and teaching hospitals across the United States and Canada.

Prior to joining the AAMC, Dr. Nivet served as the COO and treasurer for the Josiah Macy, Jr. Foundation, which fosters innovation in health professional education that aligns workforce training with the dynamic needs of patients.

Dr. Nivet has spent more than 20 years in academic medicine developing creative program initiatives and innovative approaches to advance the mission of excellence in research, education, and patient care. He earned his doctorate in higher education management from the University of Pennsylvania and his MBA with a focus on health care management from George Washington University's School of Business.

Raj Chetty is the William A. Ackman Professor of Public Economics at Harvard University and Director of Opportunity Insights. Chetty's research combines empirical evidence and economic theory to help design more effective government policies. His work on tax policy, unemployment insurance, and education has been widely cited in media outlets and Congressional testimony. His current research focuses on equality of opportunity: how can we give children from disadvantaged backgrounds better chances of succeeding?

Chetty earned his AB summa cum laude from Harvard College in 2000 and his Ph.D. from Harvard University in 2003. At the age of 23, Chetty became a professor at the University of California at Berkeley until 2009, when he returned to Harvard as one of the youngest tenured professors in Harvard's history. Chetty was a faculty member at Stanford from 2015 – 2018. In summer 2018, he returned to Harvard where he rejoined the Economic Department and launched Opportunity Insights.

Chetty has received numerous awards for his research, including a MacArthur "Genius" Fellowship and the John Bates Clark medal, given to the economist under 40 whose work is judged to have made the most significant contribution to the field. He has also received the Sherwin Rosen Prize of the Society of Labor Economists and Calvó-Armengol International Prize in Economics. He was elected as a fellow to the American Academy of Arts and Sciences in 2014 and as a member to the National Academy of Sciences in 2018.

David Satcher, MD, PhD, is a physician-scientist and public health administrator with an extensive track record of leadership, research, and community engagement. He is a Phi Beta Kappa graduate of Morehouse College and holds MD and PhD degrees from Case Western Reserve University, were he was also elected to Alpha Omega Alpha Honor Society. Dr. Satcher served as the 16th Surgeon General of the United States (1998-2002) and the 10th Assistant Secretary for Health in the Department of Health and

Human Services (1998-2001). He also served as Director of the Centers for Disease Control and Prevention (CDC) and Administrator of the Agency for Toxic Substances and Disease Registry (ATSDR). Dr. Satcher has also held top leadership positions at the Charles R. Drew University for Medicine and Science, Meharry Medical College, and the Morehouse School of Medicine. He has received over 50 honorary degrees and has received numerous awards from diverse organizations and agencies. Currently, Dr. Satcher is the Founding Director and Senior Advisor for the Satcher Health Leadership Institute at the Morehouse School of Medicine, Atlanta, Georgia.

Sonsiere Cobb-Souza is the Director of the Division of Program Operations for the Office of Minority Health at the U.S. Department of Health and Human Services (HHS). She leads development and implementation of public health programs to reduce health disparities, improve quality of care and increase the diversity of the health-related workforce, as well as policy demonstrations and initiatives that target hard-to-reach, high-risk and disenfranchised racial and ethnic minority populations. During her more than 35-year public health career, Ms. Cobb-Souza held several progressively responsible public health positions at the local and state levels in Illinois, Ohio and Wisconsin, and the federal level at the Centers for Disease Control and Prevention (CDC).

Prior to joining OMH, Ms. Cobb-Souza served as Deputy Director for the CDC Office of Minority Health and Health Disparities (OMHD) from 2002-2007. She also held a number of management positions at CDC, including Associate Director for Policy, Planning and Evaluation, in the OMHD. Among her accomplishments at CDC, she served as an agency expert on national minority health programs, injury and premature death affecting minority populations; led coordination of the Initiative to Eliminate Racial and Ethnic Health Disparities; and co-led development and implementation of CDC and HHS policies and programs related to racial and ethnic health. Ms. Cobb-Souza also served as Chief of the Training and Education Branch, National Immunization Program (NIP), and as lead project officer for National Center for Prevention Services (NCPS), National Minority Organizations (NMO) HIV Prevention Programs. She served as the program representative for the first NCPS Nongovernmental HIV External Review and led the development of the NMO HIV Prevention and Community Planning Program.

Ms. Cobb-Souza has received numerous awards, including the 2017 Secretary's Award for Meritorious Service – Empowering Communities for a Healthier Nation Initiative, 2010 Assistant Secretary's Award for Superior Service, the CDC Award for Exceptional Performance in Minority Health Services, the CDC Director's Award for Outstanding Leadership and the Secretary's Award for Distinguished Service for achieving the Childhood Immunization Initiative vaccine coverage goals and the highest immunization levels ever recorded in the U.S. Under Ms. Cobb-Souza's leadership, the Public Health Training Network also selected the National Immunization Program, Training and Education Branch to receive their Outstanding Performance Award. She also received the MetroHealth Systems Outstanding Service Award for Perinatal Network Special Projects in Cleveland, OH, and the Training Institute of Wisconsin Exceptional Service Award for Training Programs in the Areas of Adolescent Pregnancy Prevention and Reproductive Health.

Ms. Cobb-Souza completed her Bachelor of Science in health education and master's program in health care administration from George Williams College in Downers Grove, IL.

Geoffrey Young, PhD, in his role as Senior Director of Student Affairs and Programs at the AAMC, Dr. Young serves as the AAMC's principal student affairs officer and lead content expert in undergraduate medical education student services. The focus areas under his leadership include admissions, student affairs,

student diversity affairs, student records and student financial aid. Dr. Young's unit also offers learners across the medical education continuum services in career planning, financial literacy, decision making and debt management and preparation for application and transition to medical school and residency. His team is recognized as a leader in holistic review and provides resources and services that enable medical schools and other health professions schools to apply the Holistic Review framework to their selection processes. Dr. Young works closely with the national leadership of the Group on Student Affairs, advising on strategic direction and of critical issues that impact undergraduate medical education, to develop and/or address national policies that yield effective practices within student services. Additionally, he works closely with the AAMC's Student Surveys Advisory Committee to improve medical education by providing reliable data and effective and timely program evaluation tools for medical schools.

Sylvester James "Jim" Gates, Jr. is a theoretical physicist. In 2017, Gates retired from the University of Maryland and is currently the Brown Theoretical Physics Center Director, Ford Foundation Professor of Physics, an Affiliate Mathematics Professor, and a Faculty Fellow, Watson Institute for International Studies & Public Affairs at Brown University. While at the University of Maryland, College Park, Gates was a University System Regents Professor, the John S. Toll Professor of Physics, the Director of the String and Particle Theory Center, and Affiliate Professor of Mathematics. Gates served on the U.S. President's Council of Advisors on Science and Technology, contemporaneously on the Maryland State Board of Education from 2009-2016, and the National Commission on Forensic Science from 2013-2016.

He is known for his work on supersymmetry, supergravity, and superstring theory. He received two B.S. degrees and a Ph.D. from the Massachusetts Institute of Technology, where his doctoral thesis was the institution's first on the topic of supersymmetry. In 1984, Gates co-authored Superspace, the first comprehensive book on supersymmetry. He is a past president of the National Society of Black Physicists and an NSBP Fellow, as well as a Fellow of the American Physical Society, the American Association for the Advancement of Science, and the Institute of Physics in the U.K. In 2019, he was elected to the presidential line of the APS where he is currently serving as President-Elect. He is also an elected member of the American Academy of Arts and Sciences and the American Philosophical Society. In 2013, he was elected to the National Academy of Sciences, becoming the first African-American theoretical physicist so recognized in its 150-year history. President Obama awarded Prof. Gates the National Medal of Science at a White House ceremony in 2013.

From 1991 – 1993, Professor Gates was the Chair of the Department of Physics and Astronomy at Howard University and served as the founding director of the Center for the Study of Terrestrial and Extraterrestrial Atmospheres (CSTEA) funded by the National Aeronautics and Space Administration. His tenure also saw the inauguration of efforts leading to MHATTCAT (the Michigan/Howard/ AT& T collaborative access team), to carry research at the synchrotron at the Advanced Photon Source in 1994 supported by the Department of Energy. During the academic years including 2007 and 2013, he served as the Rydell Visiting Professor at Gustavus Adolphus College. During 2015-2016 he was in residence at Dartmouth College as the Roth Distinguished Scholar.

A cardiologist, researcher and public health expert **Garth Graham** joins Google as Director and Global Head of Healthcare and Public Health and head of YouTube Health. He previously served in two US administrations as US Deputy Assistant Secretary for Health, and was Assistant Dean for Health Policy and Chief of Health Services Research in the department of medicine at the University of Florida School of

Medicine, President of the Aetna Foundation as well as Vice President and Chief Community Health Officer at CVS Health. He currently serves on several boards, including the National Heart Lung, and Blood Institute Advisory Council; the board of the National Quality Forum and the board of a Fortune 500 publicly traded company Science Applications International Corp.

An elected member of the National Academy of Medicine, Garth obtained his MD at Yale University School of Medicine, MPH at Yale School of Public Health, Internal Medicine at Massachusetts General Hospital and Cardiology fellowship at Johns Hopkins. He holds three board certifications including internal medicine, cardiology and interventional cardiology.

James E.K. Hildreth, Ph.D., M.D., is the 12th president and chief executive officer of Meharry Medical College, the nation's largest private, independent historically black academic health sciences center. Dr. Hildreth obtained a B.A. in chemistry from Harvard University and was selected as the first African-American Rhodes Scholar from Arkansas. He obtained a Ph.D. in immunology from Oxford University where his studies focused on the biology of virus-specific cytotoxic T cells. Dr. Hildreth obtained an M.D. from Johns Hopkins University School of Medicine and took a leave of absence from medical school for a postdoctoral fellowship in pharmacology at Johns Hopkins.

In 1987, Dr. Hildreth joined the Johns Hopkins School of faculty as assistant professor. He was appointed as the first associate dean for graduate studies at Johns Hopkins in 1994. In 2002, Dr. Hildreth became the first African American in the 125-year history of Johns Hopkins School of Medicine to earn full professorship with tenure in basic sciences. In July 2005, Dr. Hildreth became director of the NIH-funded Center for AIDS Health Disparities Research at Meharry Medical College. In August of 2011, Dr. Hildreth became dean of the College of Biological Sciences at University of California, Davis. He was the first African-American dean in the university, which was founded in 1905. He was also appointed as a tenured professor in the Department of Cellular and Molecular Biology as well as professor in the Department of Internal Medicine in the UC Davis School of Medicine.

Dr. Hildreth's research in immunology and virology, with a focus on HIV, has resulted in more than 120 publications in top journals and 11 patents. He has received numerous NIH grants to support his research including a prestigious NIH Director's Pioneer Award. A technology developed by Dr. Hildreth was licensed by Genentech as the basis for the FDA-approved drug Raptiva.

Dr. Hildreth received numerous awards for his research, commitment to diversity in medicine, biomedical research and service to communities. His recognitions include honorary degrees, induction into the Arkansas Black Hall of Fame, the Johns Hopkins University Society of Scholars and election to the Institute of Medicine (now the National Academy of Medicine), part of the National Academy of Sciences, the most prestigious biomedical and health policy advisory group in the U.S.

Dr. Hildreth has led Meharry's effort to support the city of Nashville's response to the COVID-19 pandemic. He serves on the city's COVID-19 taskforce and Meharry manages all of the city's COVID-19 test centers, performing as many as 18,000 tests per week. Meharry is also doing mobile COVID-19 mobile testing at local churches. Dr. Hildreth led the effort to establish Meharry as a COVID-19 vaccine test site as part of Operation Warp Speed. He is also leading clinical research on a promising therapeutic for moderate to severe cases of COVID-19. Dr. Hildreth has emerged as a trusted leader in the fight against COVID-19 and has appeared numerous times in local and national print and broadcast media. As a trusted messenger, he is leading efforts to ensure that minorities enroll in COVID-19 vaccine trials and that they accept vaccines when they are approved and available. Dr. Hildreth has been appointed to the FDA's Vaccines and Related Products Advisory Committee that will review COVID-19 vaccine trial data and make recommendations for approval to the FDA commissioner.

Dr. Hildreth has served on numerous national advisory boards including the Harvard University Board of Overseers. He currently serves on the Advisory Council to the NIH Director, the Veteran's Administration National Academic Affiliations Council and the board of directors of the Association of Academic Health Centers. Dr. Hildreth serves on several other boards including chair of the board of the St. Jude Children's Research Hospital Graduate School of Biomedical Sciences.

Garnesha Ezediaro is the lead of Bloomberg Philanthropies' Greenwood Initiative - an effort to increase intergenerational Black wealth and address systemic underinvestment in Black communities. Garnesha is a proven leader with over a decade of experience serving as a catalyst for individual, community, and organizational growth. With a dedicated passion for transformation, Garnesha has worked across the public, private, and philanthropic sectors to design experiences, programs and content that inspires mission-focused, human-led innovation.

Garnesha returned to Bloomberg Philanthropies after serving as National Director for Black Outreach for the Mike for Black America Campaign. Prior to the campaign Garnesha worked in the media and technology sector where she served in Global Leadership Development Programs at Verizon Media - partnering with a dynamic team to deliver trainings and targeted development programs for over 11,000 employees globally. Her years of public service also include serving in strategic communications for the Government Innovation portfolio at Bloomberg Philanthropies, a unique program to support mayors and other city leaders in strengthening local governments around the world. Garnesha also served as Communications Director and spokesperson for New Orleans Mayor Mitch Landrieu and as Director of Marketing at Brick City Development Corporation in Newark, NJ under the leadership of former Mayor Cory Booker.

Garnesha received a Bachelor of Arts from American University with a double undergraduate major in Public Communication and Interdisciplinary Studies: Communications, Law, Economics and Government. Garnesha also studied at New York University's Wagner Graduate School of Public Service in Public and Nonprofit Management and holds a Certificate of Public Performance Management from Rutgers University-Newark.

Michele Lezama is the President and CEO of the National Action Council for Minorities in Engineering, Inc. (NACME) a leading scholarship and research organization whose vision is "an engineering workforce that looks like America". Prior to NACME she served as a strategist for Purdue University's, nationally recognized, Minority Engineering Program (MEP) and she was an employee of the University of Notre Dame in her role as executive director of The National GEM Consortium (GEM). GEM is a non-profit dedicated to increasing the number of under-represented individuals who pursue and receive a masters or PhD in engineering or science by providing full fellowships and industry research experiences. Prior to GEM, Lezama served as Executive Director of the National Society of Black Engineers (NSBE). Under Lezama's leadership, NSBE received the 2003 Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring awarded by the White House's Office of Science and Technology.

Prior to her university and non-profit roles, Lezama was the Director of Satellite Scrambling Operations at Home Box Office (HBO), and as the Associate Director of Broadcast Operations and System Integration at Columbia Broadcasting System (CBS). Prior to Lezama's media career she held several engineering roles at IBM.

Lezama earned her BS in Industrial Engineering at Northeastern University (NACME Scholar) and both her MS in Industrial Engineering (GEM Fellow) and MBA in Finance and Accounting (Toigo Fellow) from Columbia University.

Anthony B. Iton, M.D., J.D., MPH, as Senior Vice President of Healthy Communities, joined The Endowment in October 2009.

Prior to his appointment at The Endowment, Iton served since 2003 as both the director and County Health Officer for the Alameda County Public Health Department. In that role, he oversaw the creation of an innovative public health practice designed to eliminate health disparities by tackling the root causes of poor health that limit quality of life and lifespan in many of California's low-income communities.

Iton also served for three years as director of Health and Human Services and School Medical Advisor for the City of Stamford, Connecticut. Concurrent to that, he also served as a physician in internal medicine for Stamford Hospital's HIV Clinic. In addition, Iton served for five years as a primary care physician for the San Francisco Department of Public Health.

Iton's varied career also includes past service as a staff attorney and Health Policy analyst for the West Coast regional office of Consumer's Union, the publisher of Consumer Reports magazine.

Iton, who has been published in numerous public health and medical publications, is a regular public health lecturer and keynote speaker at conferences across the nation. He earned his B.S. in Neurophysiology, with honors, from McGill University, in Montreal, Quebec, his J.D. at the University of California, Berkeley's Boalt Hall School of Law, and his medical degree from Johns Hopkins University School of Medicine.

Maureen Cullins is Director of the Multicultural Resource Center and Associate Director and Sr. Advisor of the Masters of Biomedical Sciences Program in the Duke University School of Medicine. She has been at Duke University for 34 years, beginning her career in Student Affairs on the undergraduate campus. Ms. Cullins has been a pre-health advisor and worked with first generation, low wealth students for more than 20 years.

Ms. Cullins has actively advocated for marginalized students and staff of color since arriving at Duke. Her work led to the establishment of the Women's Center, Community Service Center (now the Center for Civic Engagement), and the Center for Lesbian, Gay and Transgender Life (now the Center for Sexual and Gender Diversity) in the Division of Student Affairs. As an active member of numerous University committees, advisor to student organizations, academic advisor, lecturer, series and conference organizer. She promotes the well-being of all members of the Duke community and provides opportunities for education on issues of race, gender, religion, and sexuality and their impact on health and health care. In the School of Medicine, she addresses the environmental issues that impact student success – social justice, affinity groups advisement, harassment prevention, pathway programs, and anti-discrimination. At this moment in our nation's history, Ms. Cullins is actively engaged with the School of Medicine in its anti-racism work. She on the steering committee for the Anti-racism in Medical Education Task Force and co-chairs the committee reviewing the policies and practices of Student Affairs. She co-leads the Leadership Accountability workgroup on the AAMC's Action Collaborative on Black Men in Medicine.

Her professional interests include languages and linguistics, adult literacy, young adult development, inter- and intra-group dynamics, dispute resolution, health disparities, and cultural competency. Ms. Cullins holds a bachelor's degree in French and Anthropology from Duke University; a Master's Degree and

advanced graduate study in Linguistics from the University of Pennsylvania. She lives in Durham, NC with her husband, documentary photographer Titus Brooks Heagins.

Wynter J. Duncanson, Ph.D., earned her B.S.E. in Bioengineering with a minor in Materials Science and Engineering at the University of Pennsylvania. Upon completion of her Ph.D. at Boston University in Biomedical engineering, she began a post-doc in Applied Physics at the Harvard Paulson School of Engineering. After her post-doc, she participated in developing a Western-style education and research system in a three-year-old University, Nazarbayev University (NU), in Kazakhstan in Central Asia.

Through research and teaching at NU, she was able to provide unprecedented access to a research-based engineering curriculum. She worked with a few students to found the first International Affiliate Student chapter of the Society of Women Engineers (SWE) in Central Asia. In her time as a lecturer at Boston University, she has been engaged in supporting students as the faculty advisor for the National Society of Black Engineers and building the graduate student pipeline through recruiting at National Affinity conferences. As the Assistant Dean of Outreach and Diversity, she is leading the College of Engineering at Boston University towards becoming a more diverse, equitable, and inclusive college for all, particularly those from traditionally underrepresented groups.

She has been actively increasing the graduate student pipeline by amplifying the College's presence at conferences serving URG students, and creating a prospective student database from these conferences and through databases. In addition, she has been building our faculty pipeline through hosting research symposia in which post-docs and late stage graduate students are invited. To expand our impact and truly reach underrepresented populations worldwide, she has been developing partnerships with Minority Serving Institutions and other organizations worldwide. She has been developing partnerships with Minority Serving Institutions and other organizations to identify barriers inhibiting progress in inclusion.

Wynter has become the leader of the 9-year-old, Boston University (BU), College of Engineering undergraduate facilitated engineering outreach program, the Technology Innovation Scholars Program (TISP). Historically, BU's undergraduates, "Inspiration Ambassadors" went into middle and high school classrooms educating and inspiring students about engineering and helping them complete mini-engineering activities, known as "Innovations in a Box". In our new post-COVID world without physical classrooms, we have expanded and refined our reach by working with elementary schools and using a blended modality of remote and in-person learning. She has been working to increase access for engineering outreach for underserved populations in the greater Boston area.

Byron Ford is Associate Dean of Pre-Clerkship Medical Education and Professor of Biomedical Sciences at the University of California-Riverside (UCR) School of Medicine. He was previously Director of the Graduate Program in Biomedical Sciences at UCR. Dr. Ford received his BS degree from Grambling State University and PhD from Meharry Medical College. He completed postdoctoral studies in Neurobiology at Harvard Medical School and the National Institutes of Health. He was Professor and Vice Department Chair of Neurobiology at the Morehouse School of Medicine before moving to UCR in 2015. Dr. Ford's laboratory has studied mechanisms of neuroprotection and inflammatory mediators in ischemic stroke for over 20 years. He has been the recipient of NIH and DoD grants to investigate the neuroprotective roles of neuregulin-1 (NRG-1) in stroke, traumatic brain injury (TBI), cerebral malaria and as a countermeasure for nerve agent exposure. His work has yielded nine full U.S. patents and several additional patent applications. Dr. Ford was a member of the National Institute for Neurological Disorders and Stroke (NINDS) Advisory Council at NIH from 2012-2016. He has been directly involved in the training of 10 postdoctoral fellows, 23 graduate/medical students and over 100 undergraduate students. In 2017, Dr. Ford received a grant from the NIH Bridges to the Baccalaureate (B2B) Program, which was established between UCR and Riverside

City College (RCC) to create a research education program to facilitate transfer of diverse RCC students into science, technology, engineering and math (STEM) majors. Dr. Ford received a University of California-Historically Black Colleges and Universities (UC-HBCU) Initiative grant in 2020 to improve diversity and strengthen UC graduate programs by investing in relationships between UC faculty and three HBCUs: Morehouse College, Spelman College, the Morehouse School of Medicine, and Fort Valley State University in Georgia. Dr. Ford is also co-PI of a $2.3M Health Resources and Services Administration (HRSA) grant titled Agents of Change for a Healthier Tomorrow: Transformational Integration of Quality Improvement with Primary Care Education. The goal of the program is to expand and strengthen the primary care workforce and to prepare the next generation of physicians to transform healthcare delivery systems in order to improve health outcomes and lower overall costs, particularly for patient populations facing healthcare disparities.

Michelle McMurry-Heath assumed the leadership of the Biotechnology Innovation Organization (BIO) as President and CEO on June 1, 2020. A medical doctor and molecular immunologist by training, Dr. McMurry-Heath becomes just the third chief executive to steward the world's largest biotechnology advocacy group since BIO's founding in 1993.

BIO represents 1,000 life sciences companies and organizations from 30 countries. The organization's mission is to support companies that discover and deploy scientific breakthroughs that improve human health, environmental stewardship, and sustainable agriculture.

The common thread in McMurry-Heath's work across academia, government and industry has been her focus on broadening access to scientific progress so more patients from diverse backgrounds can benefit from cutting-edge innovation. Driven by her own past family experiences navigating clinical trials and funding uncertainties within the rare disease community, McMurry-Heath calls "the distribution of scientific progress the social justice issue of our age."

She comes to BIO from Johnson & Johnson where she served as Global Head of Evidence Generation for Medical Device Companies and then Vice President of Global External Innovation and Global Leader for Regulatory Sciences. She was also instrumental in bringing J&J's incubator, JLabs, to Washington, DC. She led a global team of 900 with responsibilities in 150 countries around the globe.

Prior to her time at J&J, Dr. McMurry-Heath was also a key science policy leader in government. The Obama-Biden transition team tapped her to conduct a comprehensive analysis of the National Science Foundation's policies, programs and personnel. President Obama then named her associate science director of the FDA's Center for Devices and Radiological Health under Commissioner Peggy Hamburg. In that role, she championed clinical trial evolution, the use of real-world evidence in product evaluation, and an embrace of the patient's voice in health research so new medical products deliver outcomes that matter to them.

McMurry-Heath was the founding director of the Aspen Institute's Health, Biomedical Science, and Society Policy Program, where she promoted personalized medicine and bolstered international preparation for pandemic disease threats. She received her early training in science policy from the Robert Wood Johnson Foundation and later served as Senator Joe Lieberman's top legislative aide for science and health. In that role, she drafted legislation to protect the country from biological attacks.

McMurry-Heath received her MD/PhD from Duke's Medical Scientist Training Program, becoming the first African-American to graduate from the prestigious program. She spent 12 years working at the research bench before taking policy and leadership roles in government and industry.

McMurry-Heath lives in Washington, D.C. with her husband Sebastian Heath, a veterinarian, and their daughter, Isabella. To relax, she enjoys yoga, snorkeling and her daughter's sporting events.