



Blastoff:

Encouraging Young People to Enter and Stay in the Science, Technology, Engineering, and Math Fields



Hosted by
Congresswoman
Donna F. Edwards (MD-4)

June 6, 2012
8:45 a.m. to 1:30 p.m.

at the Capitol Hill 2168 Rayburn House Office
Building (Gold Room)

www.donnaedwards.house.gov

301.516.7601



Biography of Congresswoman Donna F. Edwards

Congresswoman Donna F. Edwards represents Maryland's 4th Congressional District. Elected in 2008 as the first African American woman to represent Maryland in the U.S. House of Representatives, Congresswoman Edwards serves on the Committees of Transportation and Infrastructure, Science, Space, and Technology, Ethics, and the Tom Lantos Human Rights Commission. She is a Member of the Congressional Black Caucus and the Progressive Caucus. As a young professional, Congresswoman Edwards worked for Lockheed Engineering at Goddard Space Flight Center on NASA's Spacelab program, managing a team of hardware, software, and systems engineers. A graduate of Wake Forest University and the University of New Hampshire School of Law, she has lived in Prince George's County for more than 25 years and currently resides in Fort Washington.

Program

8:00 A.M. REGISTRATION

8:55 A.M. WELCOME/REMARKS

U.S. Congresswoman Donna F. Edwards (MD-4)

9:05 A.M. KEYNOTE

Dr. Arun Majumdar, Director, Advanced Research Projects Agency–Energy, Department of Energy

PANELS

Emcee Dr. Tshaka Cunningham, U.S. Department of Veterans Affairs

9:15 A.M. FINDING AND FORMING STEM TALENT P-20

Moderator: Ms. Lee Christian Parker, Community Foundation of National Capital Region

Panelists: Dr. George Acquah, Bowie State University
Dr. Duane Arbogast, Prince George's County Public School System
Dr. Antonio Flores, Hispanic Alliance of Colleges and Universities
Dr. Collins Jones, Montgomery College

10:15 A.M. BUILDING THE STEM WORKFORCE

Moderator: Dr. Shirley Malcom, American Association for the Advancement of Science

Panelists: Mr. Kevin Beverly, Social & Scientific Systems, Inc.
Dr. Randolph Guschl, DuPont
Ms. Louisa Koch, National Oceanic Atmospheric Administration
Emily Simone, Lockheed Martin

11:15 A.M. SUCCESSFUL MODELS AND PARTNERSHIPS

Moderator: Dr. Kathy Richard-Andrews, Academy of Health Sciences at Prince George's Community College

Panelists: Ms. Alison Bruzek, The HistoryMakers
Dr. V. Celeste Carter, National Science Foundation
Ms. Natalie M. Givans, Girl Scouts of the Nation's Capital Council
Mr. John Manahan, U.S. Department of Education
Dr. Cindy Moss, Discovery Communications

12:30 P.M. LUNCHEON

Speaker: Dr. Charles F. Bolden, Jr., Administrator, National Aeronautics and Space Administration

1:00 P.M. CLOSING

Dr. Tshaka Cunningham, U.S. Department of Veterans Affairs

Biographies

Dr. George Acquah is Dean of the College of Arts and Sciences at Bowie State. He received a Ph.D. in Plant Breeding and Genetics in 1987 from Michigan State University as a Fulbright Scholar. His numerous awards include the 2007 National Winner of the NASULGC/USDA Excellence in College and University Teaching in Food and Agricultural Science; NAFAEO Higher Education Noble Award; 2003 Millennium Award for Excellence in Teaching given by the White House Initiative on HBCUs. Dr. Acquah is the author of seven college textbooks, one of which (Understanding Biotechnology) has been translated into Chinese, while another (Plant Genetics and Breeding) was translated into Farsi.

Duane Arbogast is currently the Chief Academic Officer for Prince George's County Public Schools. His responsibilities include the management and coordination of school performance, curriculum and instruction, special education, testing, state, and federal programs. Dr. Arbogast has served as an elementary teacher, assistant principal, principal and central office administrator in accountability. Dr. Arbogast was named Washington Post Distinguished Leader in 2004. Dr. Arbogast received a doctorate in Educational Policy and Leadership from the University of Maryland. His interests and work include the use of assessment data in instructional decision-making, instructional practice and the organization of learning communities.

Mr. Kevin Beverly is the executive vice president of Social & Scientific Systems. Before joining Social & Scientific Systems, he served in senior leadership roles in various technical and policy organizations, including Abt Associates, BAE Systems, Computer Sciences Corporation, PSI International, the National Library of Medicine and the World Health Organization. His strength and experience in leadership, strategic planning, operations, and sales and marketing has been key to the company's recent growth. Mr. Beverly holds an undergraduate degree in criminal justice and a master's degree from the School of Information Sciences, both from the University of Maryland, College Park.

Nominated by President Barack Obama and confirmed by the Senate, **Retired Marine Corps Maj. Gen. Charles Frank Bolden, Jr.**, began his duties as the 12th Administrator of the National Aeronautics and Space Administration (NASA) on July 17, 2009. He leads the NASA team and manages its resources to advance the agency's missions and goals. His 34-year career with the Marine Corps included 14 years as a member of NASA's Astronaut Office. He traveled to orbit four times aboard the space shuttle between 1986 and 1994, commanding two of the missions. His flights included deployment of the Hubble Space Telescope and the first joint U.S.-Russian shuttle mission.

Ms. Alison Bruzek earned her B.A. degree in biological sciences with a concentration in physiology from Northwestern University. Prior to her work with The HistoryMakers, she worked as a Pharmacy Technician for HealthPartners. Bruzek joined The HistoryMakers in 2010 and currently serves as Project Director of its National Science Foundation informal science education grant, ScienceMakers: African Americans & Scientific Innovation. As Project Director, she works with all aspects of the ScienceMakers grant including: scientist interviews; public programs across the U.S. for youth and adult audiences; and the development of the Toolkit curriculum.

Dr. V. Celeste Carter received her Ph.D. in Microbiology from the Pennsylvania State University School of Medicine in 1982 under the

direction of Dr. Satvir S. Tevethia. She completed postdoctoral studies in the laboratory of Dr. G. Steven Martin at the University of California at Berkeley. She joined the Division of Biological and Health Sciences at Foothill College in 1994 to develop and head a Biotechnology Program. She served as a Program Director twice in the Division of Undergraduate Education (DUE) as a rotator. Dr. Carter accepted a permanent Program Director position in DUE in 2009; she is the Lead Program Director for the Advanced Technological Education (ATE) Program in DUE as well as working on other programs in the Division and across the Foundation.

Dr. Tshaka Cunningham is Scientific Program Manager for Aging and Neurodegenerative Diseases at the U.S. Department of Veterans Affairs. He has worked as a research scientist at Bristol-Myers Squibb Pharmaceuticals, where he developed biological screening assays to identify drugs for the treatment of cardiovascular diseases, served as a technology development consultant to small biotechnology companies, and has been an invited columnist on scientific and social issues for Nature magazine and The Scientist. In addition, he is an adjunct assistant professor in the Microbiology Department at Howard University School of Medicine where he lectures in the medical virology course for medical and dental students.

In 1996, **Dr. Antonio R. Flores** became the third president and CEO of the Hispanic Association of Colleges and Universities (HACU), the only national association representing Hispanic-Serving Institutions (HSIs). HACU's membership includes more than 400 colleges and universities collectively serving two-thirds of the 2.4 million Hispanic students in U.S. higher education, plus nearly 50 leading international higher education institutions. During Flores' tenure, HACU membership, budget, and programs have almost tripled. Through HACU's advocacy efforts, more than \$2 billion in federal funding have been allocated to HSIs. Flores holds a Ph.D. in higher education administration from the University of Michigan-Ann Arbor.

Ms. Natalie M. Givans is a board member of Girl Scouts of the USA and Senior Vice President, Booz Allen Hamilton. She has over 27 years of experience in system security engineering, cyber security, information and mission assurance, and communications, information, and transmission security. Natalie is a senior leader in the firm's Cyber Technology Center of Excellence. Natalie is a member of the Booz Allen Excellence Awards Committee and the Women's Leadership Initiative and was named Engineer of the Year by the District of Columbia Council of Engineering and Architectural Societies for 2009. With an M.S. degree in electrical engineering from Johns Hopkins University, Ms. Givans also holds a B.S. degree in electrical engineering from MIT.

Dr. Randolph J. Guschl joined DuPont in 1973 as a research chemist in Pigments R&D at the Experimental Station in Wilmington, DE after receiving a Ph.D. in Inorganic Chemistry from the University of Illinois. He had assignments in Potomac River, Sabine River Laboratory, Savannah River Laboratory, DuPont Chemicals and Corporate Technology Transfer. In 1999, he assumed responsibility for DuPont's Office of Education. In 2000, he was named Director, Center for Collaborative Research and Education, with global responsibilities for corporate collaborative research and support of education programs and funding at universities and government laboratories. Randy serves on numerous Advisory Boards and Committees, including Industrial Research Institute, Council for Chemical Research, National Science Resource Center and the Delaware Foundation for Science, Math and Engineering.

Biographies (continued)

Dr. Collins Jones is a professor and coordinator for the Biotechnology Program at Montgomery College in Maryland. The Biotech Program prepares students for entry level STEM positions in the Biotechnology Industry. Prior to accepting this position Dr. Jones spent ten years at the National Institutes of Health in Bethesda Maryland as a research scientist. Dr. Jones is also designated as a master instructor for Biotech Primer and occasionally serves as a consultant for Biotech companies including Human Genome Sciences. He serves on biotechnology program advisory boards for several local colleges including the Biotechnology Masters Degree program at Johns Hopkins University.

As NOAA's Director of Education, **Louisa Koch** works to ensure that NOAA's education programs support the agency's priorities of promoting environmental literacy and fostering American competitiveness in science, technology, engineering and math (STEM). From 1998-2005, Ms. Koch served as NOAA's Deputy for Research. Before joining NOAA, she was the Commerce Branch Chief at the Office of Management and Budget. She has also served as an economist with the U.S. Congress Joint Economic Committee. Ms. Koch earned an MS in Electrical Engineering from Massachusetts Institute of Technology and a BS in Physics from Middlebury College.

Dr. Arun Majumdar, became the first Director of the Advanced Research Projects Agency - Energy, the country's only agency devoted to transformational energy research and development, in October 2009. Prior to joining ARPA-E, Dr. Majumdar was the Associate Laboratory Director for Energy and Environment at Lawrence Berkeley National Laboratory and a Professor of Mechanical Engineering and Materials Science and Engineering at the University of California, Berkeley. His research career includes the science and engineering of energy conversion, transport, and storage ranging from molecular and nanoscale level to large energy systems. He received his bachelor's degree in Mechanical Engineering at the Indian Institute of Technology, Bombay, and his Ph.D. from the University of California, Berkeley.

Dr. Shirley Malcom is Director of Education and Human Resources at the American Association for the Advancement of Science. There, she develops programs to improve the quality and increase access to education and careers in STEM. Dr. Malcom holds a PhD in ecology from Penn State. During the Clinton Administration she served on the National Science Board and President's Committee of Advisors on Science and Technology. Dr. Malcom is a trustee of Caltech and a Regent of Morgan State University. In 2003 she received the Public Welfare Medal of the National Academy of Sciences, the highest award given by the Academy.

Mr. John Manahan serves as a special assistant in the Office of the Deputy Secretary focusing on STEM education policy and coordination. He serves on the President's Federal Coordination in STEM Education Task Force and serves as the co-chair of the National Initiative for Cybersecurity Education's Formal Education Committee. Manahan is also a representative on the Department of Defense Advisory Council on Dependents Education.

Prior to joining the department, Manahan was a management consultant at Deloitte Consulting. Manahan began his career in the United States Navy where he was a submarine officer and nuclear engineer. Manahan holds an M.B.A. from George Washington University, and a bachelor's degree in physics from the United States Naval Academy.

Dr. Cindy Moss is the Director of Global STEM Initiatives, Discovery Education. She is responsible for designing, developing and implementing initiatives to inspire students' curiosity in STEM. Prior to joining Discovery Education, Dr. Moss was director STEM for Charlotte-Mecklenburg Schools. She led the district's efforts to improve science teaching and oversaw STEM curriculum. Dr. Moss began her career teaching biology and chemistry. Dr. Moss holds a bachelor's degree in zoology from the University of North Carolina at Chapel Hill and a master's degree in science from Syracuse University. She also holds a doctorate in science curriculum and instruction from the Curtin Institute of Technology in Perth, Western Australia.

Ms. Lee Christian Parker is the Director of Education Initiatives for The Community Foundation for the National Capital Region. During her 10-year tenure at the Foundation, Lee has led the development of the education arm of the Foundation's 7-10 plan to increase economic opportunities for youth and low-income families through education and career development opportunities. Utilizing her expertise in grantmaking, funder collaboration and development, Lee has raised over \$2 million dollars to launch the Collaborative for Education Organizing, a donor collaborative focused on doubling college ready graduation rates in the District of Columbia by bolstering community organizing for education reform.

Dr. Kathy Richard-Andrews was named principal of the Academy of Health Sciences, the first middle college in the state of Maryland, located on the campus of Prince George's Community College in 2011. The school is a partnership with Prince George's County Public Schools and Prince George's Community College. Dr. Richard-Andrews is a native of New Orleans where she began her education career. She is a self-described "renaissance woman" who is passionate about promoting excellence in education and determined to be a voice for children. Dr. Richard-Andrews has one son and three stepdaughters.

Ms. Emily Simone is the director of global community outreach for Lockheed Martin. In this capacity, she is responsible for leading the Corporation's philanthropic giving and employee volunteerism. In 2011, the Corporation donated more than \$25M to charities and its employees volunteered more than 1.2M hours. Emily joined Lockheed Martin more than 10 years ago and previously served as the director of communications for Lockheed Martin Information Systems & Global Services-Civil. She led strategic communications to position the business with key constituencies both externally and internally. Emily serves on The Conference Board's Contributions Council and the Foundation Board for Shady Grove Adventist Hospital in Rockville.