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Career Edge

[The 50 Most Important Blacks in Research Science](#)

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The 50 Most Important Blacks in Research Science

By Garland L. Thompson Oct 1, 2004, 12:05

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Darnell E. Diggs, Ph.D., Research Physicist, U.S. Air Force Research Laboratory

Look closely at this list of Black stereotype-busters. Because Blacks are the canary in America's social talent mine, the status of Blacks in the scientific arena is of interest to everyone. When asked, most people would be hard-pressed to name 10 Black scientists, much less 50. And to be truthful, most Americans would not assume there were 50 "Important" Black scientists anywhere, considering the self-evident small penetration of minorities into the highest echelons of Corporate America. But the bigger truth is that small numbers do not equal small talent. Rather, the toll exacted by outmoded prejudice is that those who do make it into the ranks of top science professionals get there by superior performance. The numbers of Blacks working in the research environment may be small, but the size of their accomplishments is large.

And influence always flows from large accomplishments.

The role of a George Carruthers in developing an early orbital telescope that opened new vistas in astronomy is not lost on a Derrick Pitts, who as chief

astronomer and planetarium program director at Philadelphia's Franklin Institute reaches millions with edutainment programs when he steps away from his official duties in the observatory. Pitts, working in a place whose outreach to schoolchildren is legendary, provides a new education to the multitudes streaming through the Institute's doors as much by his very visible, often televised presence as by the programs he designs.

And he's not the only one. Neil Tyson, who designed the Hayden Planetarium whose programs he directs at New York's American Museum of Natural History, is a lesson in himself on the level of performance Blacks can achieve in science.

The List Goes On. Shirley Ann Jackson broke a lot of old molds for science professionals when she graduated with a Ph.D. in physics from MIT, but that was only the beginning. It is forgotten today that 10 Black scientists played integral roles in the Manhattan Project to unleash the atom, but it's hard to forget Dr. Jackson's ascension as the first Black member, then the first chair, of the U.S. Nuclear Regulatory Commission. And if anyone thinks that job was only ceremonial, hark back to the frightening days of Three Mile Island. Better yet, come forward a few years, and visit the wasteland outside Chernobyl.

Now she's running Rensselaer Polytechnic Institute -- after West Point the oldest American engineering school -- while simultaneously leading the American Association for the Advancement of Science as president.



Neil Tyson, who designed the Hayden Planetarium

Luther Williams used a combination of scientific brilliance and oratorical elegance to rise at the National Science Foundation, at a time when many Americans could be excused for not knowing what it did. The Urban Systemic Initiatives Dr. Williams promulgated in school districts across the country, before he moved on, shifted the possibilities open to millions of schoolchildren. And if a lot of ordinary Americans never heard of him, their children's teachers certainly did.



Shirley M. Malcolm

Ditto for Shirley Malcom, at the AAAS. Not only has she been a tireless advocate for minorities' and women's access to science careers, she flies around the world personally opening doors. One of her many exploits is running the Graduate Scholars Program, driving creation of a new Black professoriate by financing Ph.D.-level education for Black science graduates. Another reached into the foundation of the Black community, the churches, recognizing that many were running ad-hoc after-school tutoring programs. Dr. Malcom raised the bar by providing tutor training, help in strengthening their curricular focus, and new materials to promote the study of science.

Percy Pierre had the good fortune to watch a dream he promoted grow into a major contributor called NACME, which today has spent more than \$100 million putting 18,000-plus minority students through college. John Slaughter -- former chancellor of the University of Maryland's flagship campus at College Park, then president of Occidental College -- is now NACME's president and CEO, after being called out of retirement. He recently honored Dr. Pierre at NACME's Big Bash to celebrate its achievement of dramatically boosting minority participation in science and engineering over the last 30 years.

The List Goes On and On.

Mark Dean set the agenda for a complete shift in the American business paradigm when he laid the architecture for the IBM personal computer, but he was impatient to move on to other exploits, generating patent after patent and gaining recognition as an IBM Fellow, master inventor, vice president, and lab director.

The List Goes On. Arnold Stancell rewrote the history of polymer science before himself moving on, first to top executive levels at Mobil Oil Corporation and then to academia, where he is training a new corps of discoverers. Lydia Thomas built an enterprise in not-for-profit consulting, providing environmental guidance to federal, state, and local governments at Mitretek Systems, Inc., and her expertise took her to the advisory council of the new federal Department of Homeland Security.



Derrick Pitts, who as chief astronomer and planetarium program director at Philadelphia's Franklin Institute reaches millions with edutainment programs when he steps away from his official duties in the observatory.

What you find, when you look at this list, is that the 50 Most Important are, like the Emerald Honors winners, scientists who push the performance envelope to its outer bounds. What's different here is that, in the breadth and potency of their influence, each is really creating a new envelope altogether, to encompass everybody.

The 50 Most Important Blacks in Research Science

James R. Andrade, Ph.D.
Senior Director Research and Development, Meals Division and Growth
Kraft Foods North America

Sharon J. Barnes
Human Resources Manager
The Dow Chemical Company

Vernol Battiste
Education and Outreach Manager, Principal Investigator
NASA Ames Research Center

Guion S. Bluford Jr., Ph.D.
President
Aerospace Technology Group

George R. Carruthers
Senior Astrophysicist
Naval Research Laboratory, Space Science Division

Marjorie Davis
Senior Principal
SRA International, Inc.

Mark E. Dean, Ph.D.
IBM Fellow and Vice President
IBM Corporation

Peter J. Delfyett, Ph.D.
Professor of Optics, Electrical and Computer Engineering, and Physics
College of Optics and Photonics: CREOL and FPCE - University of Central
Florida

Darnell E. Diggs, Ph.D.
Research Physicist
U.S. Air Force Research Laboratory

Arnold W. Donald
Chairman of the Board
Merisant Company

Lisa Egbuonu-Davis, M.D.
Vice President, U.S. Medical
Pfizer Inc.

Philip Emeagwali
Computer Scientist
Emeagwali Research

Roscoe C. Giles, Ph.D.
Professor of Electrical and Computer Engineering
Boston University

Donald E. Goodwin
Vice President - Scientific Laboratories and Proving Grounds
DaimlerChrysler Corporation

Johney B. Green Jr., Ph.D.
Group Leader - Fuels, Engines, and Emissions Research Center
Oak Ridge National Laboratory

Coolidge Hamlett Jr.
Director, Flight Information Systems Division
NAVAIR Depot Cherry Point

Paula T. Hammond, Ph.D.
Associate Professor of Chemical Engineering
Massachusetts Institute of Technology

Gary L. Harris, Ph.D.
Professor of Electrical Engineering and Associate Director, Materials Science
Research Center of Excellence
Howard University

Mary S. Harris, Ph.D.
President
BioTechnical Communications, Inc.

William Hogan
Chairman and CEO
The Hogan Group

Kerrie Holley
Distinguished Engineer
IBM Corporation

Freeman A. Hrabowski III
President
University of Maryland, Baltimore County

Roychelle S. Ingram-Ogunwumi, Ph.D.
Senior Development Scientist
Corning Incorporated

Shirley A. Jackson, Ph.D.
President
Rensselaer Polytechnic Institute

Leroy Jones
Manager of Regulatory Engineering
Dell Inc.

Kevin T. Kornegay, Ph.D.
Director, Cornell Broadband Communications Research Laboratory
Cornell University, School of Electrical and Computer Engineering

Jean-Yvon Lauriston
Computer Scientist, Principal
Computer Sciences Corporation

Julius L. Longshore
E-2/C-2 Product Build Integrated Product Team Director
Northrop Grumman Integrated Systems

Shirley M. Malcom, Ph.D.
Head, Education and Human Resources
American Association for the Advancement of Science

Wayne J. Martin, Ph.D.
Environmental Scientist, Technical Group Manager
Pacific Northwest National Laboratory

Jesse W. McCurdy
Director, Integrated Systems Evaluation, Experimentation and Test Department
NAVAIR

Oliver McGee, Ph.D.
Professor and Chairperson, Department of Civil and Environmental Engineering
and Geodetic Science
Ohio State University

Vincent M. McNeil, Ph.D.
Senior Technologist, Worldwide DSP Products, Advanced Architectures and
Chip Technology
Texas Instruments Incorporated

Colin J. Parris, Ph.D.
Vice President, eServer Product Management
IBM Corporation

Percy A. Pierre, Ph.D.
Professor, Department of Electrical and Computer Engineering
Michigan State University

Derrick H. Pitts
Chief Astronomer and Planetarium Programs Director, Senior Scientist
Franklin Institute Science Museum

Myrtle S. Potter
President, Commercial Operations
Genentech, Inc.

Marquita M. Qualls, Ph.D.
Principal Scientist, Pharmaceutical Development
GlaxoSmithKline

Melvin R. Ramey, Ph.D., P.E.
Professor Emeritus, Department of Civil and Environmental Engineering
University of California, Davis

Barbara A. Sanders
Director of R&D Engineering, Advanced Development Delphi Thermal and
Interior Systems
Delphi Corporation

Bobby Satcher, Ph.D.
Assistant Professor, Department of Orthopedic Surgery, Northwestern University
Medical Center
Mission Specialist, NASA

John B. Slaughter, Ph.D.
President and CEO
NACME, Inc.

Arnold F. Stancell, Sc.D.
Emeritus Professor, Turner Servant Leadership Chair
Georgia Tech, School of Chemical and Biomolecular Engineering

James H. Stith, Ph.D.
Vice President, Physics Resources Center
American Institute of Physics

John D. Terry, Ph.D.
Director of Baseband Systems Engineering
WiQuest Communications, Inc.

Lydia W. Thomas, Ph.D.
President and Chief Executive Officer
Mitretek Systems, Inc.

Neil D. Tyson, Ph.D.
The Frederick P. Rose Director, Hayden Planetarium
American Museum of Natural History

Woodrow Whitlow Jr., Ph.D.
Deputy Director
NASA Kennedy Space Center

Gina P. Wilkerson, D.V.M.
Director, Veterinary Medicine
AstraZeneca Pharmaceuticals LP

Carlo K. Williams, Ph.D.
Development Scientist
Corning Incorporated

Luther S. Williams, Ph.D.
William T. Kemper, Director of Education and Interpretation
Missouri Botanical Garden

Scott W. Williams, Ph.D.
Professor of Mathematics
University at Buffalo, State University of New York.

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