

# Program Book



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— Ticora Jones, Ph.D., Executive Branch Fellow and MRS Congressional Fellow; Senior Advisor and Program Manager, U.S. Agency for International Development



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SCIENCE & TECHNOLOGY  
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# Emerging Researchers National (ERN) Conference in STEM Program Book

Co-hosted by the  
American Association for the Advancement of Science (AAAS)  
Education and Human Resources Program (EHR)

National Science Foundation (NSF)  
Division of Human Resources Development (HRD)  
Directorate of Education and Human Resources Program

NSF Directorate for Engineering (ENG)  
Office of Emerging Frontiers in Research and Innovation (EFRI)

National Society of Black Physicists (NSBP)





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# Overview of the Conference

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## Emerging Researchers National (ERN) Conference in STEM

The 2016 Emerging Researchers National (ERN) Conference in Science, Technology, Engineering and Mathematics (STEM) is hosted by the American Association for the Advancement of Science (AAAS), Education and Human Resources Programs (EHR) and the National Science Foundation (NSF) Division of Human Resource Development (HRD), within the Directorate for Education and Human Resources (EHR). The conference is aimed at college and university undergraduate and graduate students who participate in programs funded by the NSF HRD Unit, including underrepresented minorities and persons with disabilities.

In particular, the conference seeks to highlight the research of undergraduate and graduate students who participate in the NSF Research Experiences for Undergraduates (REUs) Program and the following NSF HRD-funded programs:

- Alliance for Graduate Education and the Professoriate (AGEP);
- Centers of Research Excellence in Science and Technology (CREST);
- Emerging Frontiers in Research and Innovation (EFRI-REM) Scholars;
- EntryPoint;
- Historically Black Colleges and Universities Undergraduate Program (HBCU-UP);
- Louis Stokes Alliances for Minority Participation (LSAMP) and LSAMP Bridges to the Doctorate;
- National Society of Black Physicists (NSBP) Scholars<sup>1</sup>;
- Research in Disabilities Education (RDE); and
- Tribal Colleges and Universities Program (TCUP).

The objectives of the conference are to help undergraduate and graduate students to enhance their science communication skills and to better understand how to prepare for science careers in a global workforce. Towards this end, the general format for the 2-1/2 day conference includes:

- Student poster and oral presentations.

Other conference activities include workshops focused on:

- Strategies for applying for and succeeding in graduate programs and finding funding for graduate school;
- Career preparation for the STEM workforce, including employment searches and retention; and
- Understanding STEM careers in a global context and identifying international research and education opportunities for undergraduate and graduate students and faculty.

Exhibitors include representatives from academic, government, business, and the non-profit sector with information about graduate school admissions, fellowships, summer research opportunities, professional development activities, and employment opportunities.

For more information, visit the Web site at <http://www.emerging-researchers.org/>.

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<sup>1</sup>The National Society of Black Physicists (NSBP) is working with AAAS to increase the number of African American and other underrepresented minority physics students who participate in the ERN conference.

## The National Science Foundation (NSF) Division of Human Resource Development (HRD)

The Division of Human Resource Development (HRD) serves as a focal point for NSF's agency-wide commitment to enhancing the quality and excellence of STEM education and research through broadening participation by historically underrepresented groups - minorities, women, and persons with disabilities. Priority is placed on investments that promise innovation and transformative strategies and that focus on creating and testing models that ensure the full participation of and provide opportunities for the educators, researchers, and institutions dedicated to serving these populations. Programs within HRD have a strong focus on partnerships and collaborations in order to maximize the preparation of a well-trained scientific and instructional workforce for the new millennium.

### HRD Vision:

HRD envisions a well-prepared and competitive U.S. workforce of scientists, technologists, engineers, mathematicians, and educators that reflects the diversity of the U.S. population.

### HRD Mission:

HRD's mission is to grow the innovative and competitive U.S. science, technology, engineering and mathematics (STEM) workforce that is vital for sustaining and advancing the Nation's prosperity by supporting the broader participation and success of individuals currently underrepresented in STEM and the institutions that serve them.

### STRATEGIC GOAL 1:

The creation of new knowledge, innovations, and models for broadening participation in the STEM enterprise.

### STRATEGIC GOAL 2:

The translation of knowledge, innovations, and models for broadening participation in STEM for use by stakeholders.<sup>1</sup>

### STRATEGIC GOAL 3:

Expand Opportunities: The expansion of stakeholder capacity to support and engage diverse populations in high quality STEM education and research programs.

### HRD THEORY OF CHANGE:

HRD's fundamental mission of broadening participation in STEM is embedded in the greater EHR and NSF goals. A basic premise of all HRD programs is that increasing the successful participation of individuals from historically underrepresented groups in STEM will result in a diverse, highly capable STEM workforce that can lead innovation and sustain U.S. competitiveness in the science and engineering enterprise.

Therefore, HRD has an overall goal to increase the successful participation of underrepresented minorities, women and girls, and persons with disabilities in STEM. This is done through the implementation and testing of evidence-based practices, critical review of program results to assess impact, data-driven continuous improvement, and broad dissemination of program findings for wide adoption or scale-up of effective strategies.

<sup>1</sup>Stakeholders include a wide range of organizations and individuals such as but not limited to: NSF and other Federal agencies, federally funded STEM labs and centers, institutions of higher education including minority-serving institutions, State and local governments, education researchers and practitioners, policy makers, STEM employers, professional STEM societies, STEM organizations, and private funders.



# About

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## The National Science Foundation (NSF) Directorate for Engineering (ENG) Office of Emerging Frontiers in Research and Innovation (EFRI)

The Office of Emerging Frontiers in Research and Innovation (EFRI) has been established as a result of strategic planning and reorganization of NSF Engineering Directorate (ENG). Motivated by the vision of ENG to be the global leader in advancing the frontiers of fundamental engineering research, EFRI serves a critical role in helping ENG focus on important emerging areas in a timely manner. Each year, EFRI will recommend, prioritize, and fund interdisciplinary initiatives at the emerging frontier of engineering research and education. These investments represent transformative opportunities, potentially leading to: new research areas for NSF, ENG, and other agencies; new industries or capabilities that result in a leadership position for the country; and/or significant progress on a recognized national need or grand challenge.

The EFRI process of selecting, announcing, and funding new frontier areas will function throughout the year, ensuring continual input and feedback from the engineering community on promising future research opportunities. This input comes from such diverse sources as workshops, advisory committees, technical meetings, professional societies, proposals and awards, and NSF committees of visitors.

From this comprehensive input, ENG identifies, evaluates, and prioritizes those frontier topics that best match the EFRI criteria (transformative, addressing a national need or grand challenge, multi- or inter-disciplinary, an area where the community is poised to respond, and clearly demonstrating ENG's leadership role).

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## The National Society of Black Physicists (NSBP)

Founded in 1977 at Morgan State University, the mission of the National Society of Black Physicists (NSBP) is to promote the professional well-being of African American physicists and physics students within the international scientific community and within society at large.

The organization seeks to develop and support efforts to increase opportunities for African Americans in physics and to increase their numbers and visibility of their scientific work. It also seeks to develop activities and programs that highlight and enhance the benefits of the scientific contributions that African American physicists provide for the international community. The society seeks to raise the general knowledge and appreciation of physics in the African American community.

More information about NSBP is located online at <http://nsbp.org/>.

## The American Association for the Advancement of Science (AAAS)

The American Association for the Advancement of Science is an international non-profit organization dedicated to advancing science around the world by serving as an educator, leader, spokesperson and professional association. In addition to organizing membership activities, AAAS publishes the journal *Science*, <http://www.sciencemag.org/>, as well as many scientific newsletters, books and reports, and spearheads programs that raise the bar of understanding for science worldwide.

AAAS was founded in 1848, and includes some 261 affiliated societies and academies of science, serving 10 million individuals. *Science* has the largest paid circulation of any peer-reviewed general science journal in the world, with an estimated total readership of one million. The non-profit AAAS is open to all and fulfills its mission to "advance science and serve society" through initiatives in science policy; international programs; science education; and more. For the latest research news, log onto EurekAlert!, <http://www.eurekalert.org/>, the premier science-news website, a service of AAAS.

## Membership and Programs

Open to all, AAAS membership includes a subscription to *Science*.

Four primary program areas fulfill the AAAS mission:

- Science and Policy
- International Activities
- Education and Human Resources
- Project 2061

## AAAS Mission

AAAS seeks to "advance science, engineering, and innovation throughout the world for the benefit of all people." To fulfill this mission, the AAAS Board has set these broad goals:

- Enhance communication among scientists, engineers, and the public;
- Promote and defend the integrity of science and its use;
- Strengthen support for the science and technology enterprise;
- Provide a voice for science on societal issues;
- Promote the responsible use of science in public policy;
- Strengthen and diversify the science and technology workforce;
- Foster education in science and technology for everyone;
- Increase public engagement with science and technology; and
- Advance international cooperation in science.

Visit the AAAS website at <http://www.aaas.org/>.

# Welcome

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Joan Ferrini-Mundy



Sylvia M. James

**NATIONAL SCIENCE FOUNDATION**  
4201 WILSON BOULEVARD  
ARLINGTON, VIRGINIA 22230

Dear Conference Participants:

On behalf of the National Science Foundation (NSF), the Directorate for Education and Human Resources, and the Division of Human Resource Development, we welcome you to the 2016 *Emerging Researchers National Conference in Science, Technology, Engineering and Mathematics (STEM)*. This research conference for undergraduate and graduate students builds on and continues NSF's commitment to increase participation in STEM fields for underrepresented minorities, women, and individuals with disabilities as a means to foster the research and education capacity of the nation.

Student scholarship encompasses the creation of scientific knowledge; collaboration with other students, researchers, and faculty; and dissemination of research at conferences and in journals. We applaud your enthusiasm for research experiences as part of your ongoing studies.

This conference is designed to provide you with information and resources to become successful with the next steps in your career. We hope the plenary sessions, research presentations, panels, workshops, and exhibits will be informative and helpful. We trust that you will take advantage of all of the opportunities this conference has to offer.

Sincerely,

A handwritten signature in blue ink that reads "Joan Ferrini-Mundy".

Joan Ferrini-Mundy  
Assistant Director  
Directorate for Education and Human Resources

A handwritten signature in blue ink that reads "Sylvia M. James".

Sylvia M. James  
Division Director  
Human Resource Development





Shirley M. Malcom



Yolanda S. George



Dear ERN Conference Participants:

Welcome to the 2016 *Emerging Researchers National (ERN) Conference in Science, Technology, Engineering and Mathematics (STEM)*. The American Association for the Advancement of Science (AAAS), publisher of the *Science* family of journal, is pleased to join the National Science Foundation (NSF) in co-sponsoring the sixth ERN conference. We welcome this collaboration with NSF and applaud the foundation's continuing commitment to building a well-prepared and competitive U.S. STEM workforce, including broadening participation by underrepresented minorities, persons with disabilities, and females, as well as the institutions which serve them.

This year, we have more than 1,000 participants, from over 250 institutions. About 70% of the conference participants are undergraduate and graduate student researchers who are supported by the NSF Human Resources Development (HRD) Programs; Research Experience for Undergraduates (REU); the Directorate for Engineering (ENG), Office of Emerging Frontiers in Research and Innovation (EFRI) Research Experience and Mentoring (REM) Program; and other federal programs, including the National Institutes of Health, NASA, and USDA.

Our plenary speakers will discuss 2015 science breakthroughs; the connections between mathematics and statistics and drug evaluation and research; and the development of voting technology. This year, the National Society of Black Physicists (NSBP) is meeting with us and offering a series of workshops for physics students. Other new workshops will focus on resume writing (Google, Inc.), funding for small business opportunities (NIH and NASA), and tips for finding a mentor (National Research Mentoring Network - NRMN). Our other new feature is the ERN *Science in a Minute* student video competition. Attendees will get to view and vote on their favorite video at the conference.

Our continuing workshops will include staff and members of the Association of American Medical Colleges (AAMC), Institute for Broadening Participation (IBP), NSF Division of Graduate Education, Intel, National Institute for Computational Sciences, and the Southeastern Universities Research Consortium (SURA). And for last minute confidence building, we are once again presenting workshops and coaching on presenting oral and poster presentations.

We appreciate the continued support and efforts of the exhibitors at this Conference, many of whom are or have been grantees of the NSF Alliances for Graduate Education and the Professoriate (AGEP) or the Integrative Graduate Education Research Traineeship (IGERT) Programs. The exhibitors provide contacts and a wealth of information about graduate school admissions, fellowships, summer research opportunities, professional development activities, and employment opportunities. From our evaluations, we know that many ERN attendees have benefited from services and programs provided by the exhibitors.

This conference provides one of the few national venues for STEM undergraduate and graduate students to network, build their scientific communications skills, and showcase their research skills. *Helping scientists and engineers forge successful career paths is one way that AAAS "advances science and serves society."* Besides STEM conferences, AAAS also offers tools and tips, internships, fellowships, job market information, and a supportive online community via <http://www.aaas.org/careers>.

We are most appreciative for the continued support by the alumni of the David and Lucile Packard HBCU Graduate Scholars Program, L'Oréal USA For Women in Science (FWIS) post-doctoral fellowship program, the AAAS Science and Technology Policy Fellows, the alumni of the SACNAS Summer Leadership Institute, and other STEM professionals who serve as role models and mentors and help with the judging of student oral and poster presentations

It is our hope that you all benefit from the new people, knowledge, resources and networking opportunities that you discover at this Conference and via our Web site.

Sincerely,

Handwritten signatures of Shirley M. Malcom and Yolanda S. George in cursive script.

Shirley M. Malcom, Director, AAAS Education and Human Resources (EHR) Programs &  
Yolanda S. George, Deputy Director and Program Director, AAAS EHR

# Conference Staff

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## NSF and AAAS Staff

### NSF Division of Human Resources Development (HRD) Senior Managers

Sylvia M. James, *Division Director*  
Jermelina Tupas, *Deputy Division Director*

### HRD Program Directors and Staff

Rebecca Bates, *HBCU-UP and TCUP*  
Dana Britton, *ADVANCE and ECR*  
Lura (Jody) Chase, *TCUP*  
Jessie DeAro, *ADVANCE and ECR*  
Earnestine Easter, *HBCU-UP and ECR*  
A. James Hicks, *LSAMP*  
Tasha Inniss, *LSAMP*  
Martha L. James, *EASE and LSAMP*  
Andrea Johnson, *HBCU-UP and CREST*  
Mark H. Leddy, *ECR and AGEP*  
Nafeesa Owens, *EASE*  
Claudia Rankins, *HBCU-UP and CREST*  
Victor Santiago, *CREST and HBCU-UP*  
Marilyn J. Suiter, *EASE*

### NSF Office of Emerging Frontiers in Research and Innovation (EFRI)

Sohi Rastegar, *Director of EFRI*  
Garie Fordyce, *Program Manager, EFRI*

## AAAS Education and Human Resources (EHR)

Shirley M. Malcom, *Director*  
Yolanda S. George, *Deputy Director*

## AAAS Conference Staff

Donna Behar  
Tarrick Clayton  
Nicole Davies  
Abeni Edwards  
Binmiao (Joy) Guo  
Laureen Summers  
Janaya Thompson

## Pongos Interactive

Chrissy Rey  
Christi Loya  
Zane Kolnik  
Will Pierce

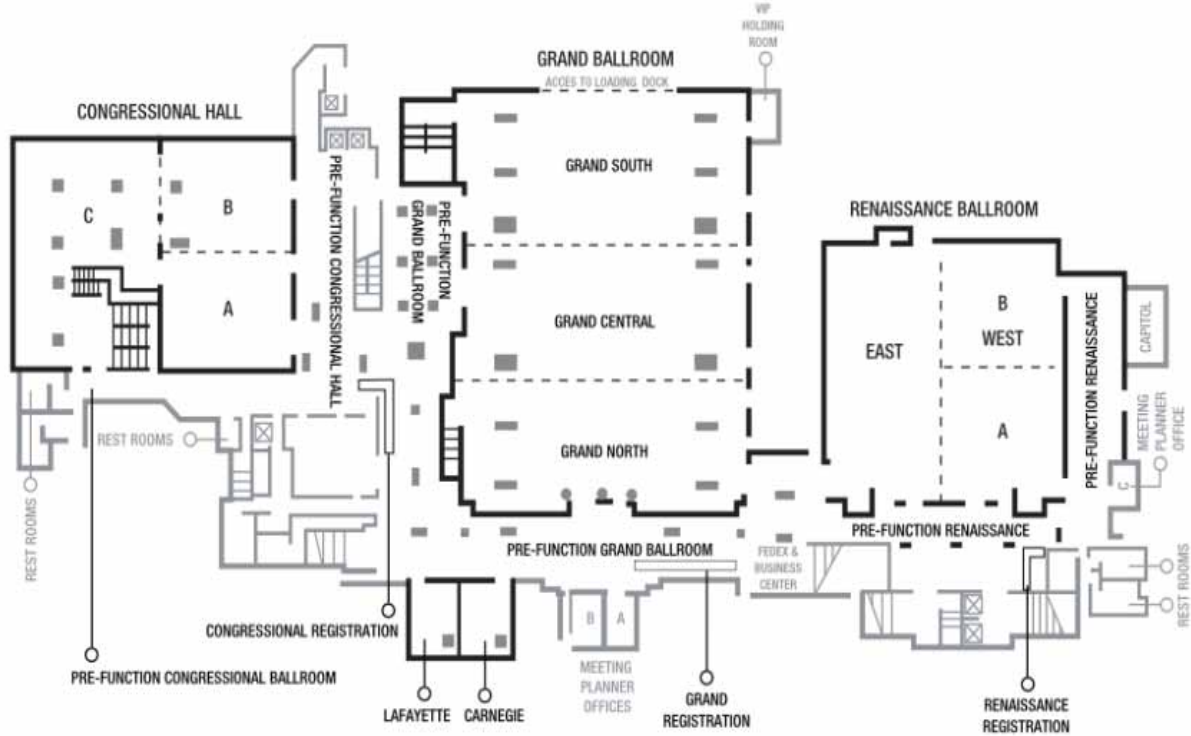
## ERN Advisory Board

Daniel Akins, *City College of New York*  
Kenneth Boutte, *Xavier University of Louisiana*  
Anissa Buckner, *University of Arkansas, Pine Bluff*  
Carol Davis, *North Dakota State University*  
Lisa B. Elliot, *National Technical Institute for the Deaf at Rochester Institute of Technology*  
Juan Gilbert, *Clemson University*  
Kelly M. Mack, *Association of American Colleges and Universities*  
Camille A. McKayle, *University of the Virgin Islands*  
Larry Mattix, *Norfolk State University*  
Lucas Miller, *Haskell Indian Nations University*  
Delia Rosales-Valles, *New Mexico State University*  
Carmen K. Sidbury, *Spelman College*

## Chief Poster and Oral Presentation Judges

Johnathan Lambright, *Savannah State University*  
Jessica C. Venable, *Virginia Commonwealth University*

## BALLROOM LEVEL



## LOBBY LEVEL





# Hotel Floor Plans

## MEETING ROOM LEVEL



## Thursday, February 25, 2016

11:00am - 3:00pm	<b>Pre-Conference Packard Scholar Meeting</b> ( <i>Invitation Only</i> ) <i>Meeting Room 12</i>
3:00pm - 9:00pm	<b>Conference Registration Opens</b> <i>Grand Registration</i>
1:00pm - 7:00pm	<b>Exhibitor Setup</b> <i>Congressional Ballroom A&amp;B</i>
3:00pm	<b>ADA Resource Room Opens</b> <i>Meeting Room 16</i>
4:00pm - 5:00pm	<b>Exhibitor Orientation</b> <i>Congressional Ballroom A&amp;B</i>
5:00pm - 6:00pm	<b>Judge's Orientation</b> <i>Congressional Ballroom C</i>
6:00pm - 8:00pm	<b>Opening Plenary Session 1 and Dinner</b> <i>Grand Ballroom</i>
	<b>Moderator and AAAS Welcome:</b> <b>Yolanda S. George</b> , <i>Deputy Director, Education and Human Resources Programs (EHR), AAAS</i>
	<b>Welcome Remarks:</b> <b>Sylvia M. James</b> , <i>Division Director, HRD, NSF</i>
	<b>Sohi Rastegar</b> , <i>Director, EFRI, NSF</i>
	<b>Paul Gueye</b> , <i>National Society of Black Physicists (NSBP)</i>
	<b>Speaker and Q&amp;A:</b> <b>Marcia McNutt</b> , <i>Editor-in-Chief of Science, AAAS</i>
	<b>Review of ERN Agenda</b>
	<b>Announcements</b>
8:00pm - 10:00pm	<b>Exhibit Hall Opens - Session 1</b> <i>Congressional Ballroom A&amp;B</i>

## Friday, February 26, 2016

7:00am - 7:00pm	<b>Registration</b> <i>Grand Registration</i>
7:00am - 7:45am	<b>Oral Presentations Session 1 (Set-Up)</b> <i>(See handout for room assignments.)</i>
	<b>Poster Presentations Session 1 (Set-Up)</b> <i>Renaissance Ballroom</i>
7:00am - 6:30pm	<b>Judge's Room Opens</b> <i>Congressional Ballroom C</i>
7:00am - 6:30pm	<b>ADA Resource Room Opens</b> <i>Meeting Room 16</i>
7:45am - 9:45am	<b>Networking Breakfast and Plenary Session 2</b> <i>Grand Ballroom</i>
	<b>Moderator and AAAS Welcome:</b> <b>Shirley M. Malcom</b> , <i>Director, EHR, AAAS</i>
	<b>Brief Overview of the National Research Mentor Network:</b> <b>Jamboor K. Vishwanatha</b> , <i>University of North Texas Health Science Center</i>
	<b>NSF Welcome Remarks:</b> <b>Claudia Rankins</b> , <i>Program Director, EHR, NSF</i>
	<b>Speaker and Q&amp;A:</b> <b>France Córdoba</b> , <i>Director, NSF</i>
	<b>Preview of ERN 2016 Video Entries:</b> <b>Tarrick Clayton</b> , <i>AAAS</i>
	<b>Quentarius Moore</b> , <i>Jackson State</i>
	<b>Andreas Calle</b> , <i>University of Puerto Rico at Mayaguez</i>
	<b>Christian Rivera</b> , <i>University of Puerto Rico</i>
	<b>Hildelix L. Soto Toro</b> , <i>University of Puerto Rico at Mayaguez</i>
	<b>Announcements</b>
9:45am - 10:00am	<b>Break</b>

# Agenda

10:00am - 6:30pm	<b>EFRI-REM Networking Session</b> <i>(Invitation Only)</i> <i>Mount Vernon Square</i>
10:00am - 12:15pm	<b>Poster Presentations Session 1</b> <i>Renaissance Ballroom</i>  <b>Oral Presentations Session 1</b> <i>(See handout for room assignments.)</i>  <b>These include:</b> <b>Biological Sciences (Undergraduate Students)</b> <i>Meeting Room 6</i>  <b>Computer Sciences and Information Management (Undergraduate Students)</b> <i>Meeting Room 7</i>  <b>Ecology, Environmental, and Earth Sciences (Undergraduate Students)</b> <i>Meeting Room 8</i>  <b>Technology and Engineering (Undergraduate Students)</b> <i>Meeting Room 9</i>  <b>Biological Sciences (Graduate Students)</b> <i>Meeting Room 10</i>  <b>Chemistry and Chemical Sciences (Graduate Students)</b> <i>Meeting Room 11</i>  <b>Nanoscience/Physics (Graduate Students)</b> <i>Meeting Room 12</i>
10:00am - 12:15pm	<b>Concurrent Workshops Session 1</b> <i>(Meeting Room Level)</i>  <b>A. NSF Graduate Research Fellowship Program</b> <i>Meeting Room 2</i>  <b>Earnestine Psalmonds Easter,</b> <i>Program Director, EHR, NSF</i>  <b>B. Funding Your STEM Education (For Undergraduate and Graduate Students)</b> <i>Meeting Room 4</i>

**LaTayna Turner Braxton**, *Outreach Specialist, Institute of Broadening Participation, Moderator and Presenter*

**Bernard Batson**, *Director, Diversity Programs, University of South Florida*

**Jami Joyner**, *Director, Diversity Programs in Engineering, Cornell University*

**Yolanda Trevino**, *Assistant Vice President, Office of the Vice President for Diversity, Equity, and Multicultural Affairs, Indiana University*

**C. NSBP Session 1: Physics Highlights of the Last Decade**  
*Meeting Room 3*

**Paul Gueye**, *Hampton University/NSBP, Introduction*

**Wendell Hill**, *University of Maryland, Materials*

**Keith Baker**, *Yale, Nuclear/High Energy*

**Peter Delfyett**, *University of Central Florida, Optics*

**Lou Strolgler**, *Space Telescope Science Institute, Astrophysics*

**D. Learn About Small Business Opportunities in STEM**  
*Meeting Room 5*

**Robert Vinson**, *Program Manager, NIH SBIR/STTR in the Office of Extramural Research*

**Joseph Grant**, *Deputy Program Executive, NASA SBIR/STTR*

**E. Biomedical Graduate Education and Careers for Scientists (PhD) and Physician-Scientists (MD-PhD)**  
*Meeting Room 14*

**Victoria Freedman**, *Associate Dean for Graduate Programs, Graduate Division of Biomedical Sciences, Albert Einstein College of Medicine of Yeshiva University*

**Nancy B. Schwartz**, *Professor and dean for Postdoctoral Affairs and Co-director of the Office of Graduate Affairs Director, University of Chicago*

**F. Roadmap to Becoming a Doctor**  
*Meeting Room 15*

**Rebecca Rice**, *Director, Service Outreach, AAMC*

**Julie Gilbert**, *Sr. Education Debt Management Specialist, Student/Resident Debt Management, AAMC*

**G. Tips and Coaching for Effective Oral and Poster Presentations**  
*Carnegie Room (Ballroom Level)*

**Irene Hulede**, *Manager Student Programs, American Society for Microbiology (ASM)*

**Beronda Montgomery**, *Associate Professor, Biochemistry and Molecular Biology, Michigan State University*

**H. EFRI-REM Networking Session**  
*(Invitation Only)*  
*Mount Vernon Square*

12:15pm - 1:30pm

**Plenary Session 3**  
*Grand Ballroom*

**Moderator:**  
**James Stith**, *Vice President Emeritus, American Institute of Physics (AIP)*

**Speaker:**  
**Dionne Price**, *Director, Division of Biometrics IV, Food and Drug Administration(FDA), US Department of Health and Human Services (HHS)*

**Announcements**

1:30pm - 4:00pm

**Exhibit Hall Opens - Session 2**  
*Congressional Ballroom A&B*

1:45pm - 4:00pm

**Poster Presentations Session 2 (Set-Up)**  
*Renaissance Ballroom*

**Oral Presentations Session 2 (Set-up)**  
*(See handout for room assignments.)*

4:00pm - 6:30pm

**Poster Presentations Session 2**  
*Renaissance Ballroom*

**Oral Presentations Session 2**  
*(See handout for room assignments.)*

**These include:**  
**Biological Sciences (Undergraduate Students)**  
*Meeting Room 6*

**Computer Sciences and Information Management (Undergraduate Students)**  
*Meeting Room 7*

**Ecology, Environmental, and Earth Sciences (Undergraduate Students)**  
*Meeting Room 8*

**Nanoscience/Physics (Undergraduate Students)**  
*Meeting Room 9*

**Technology and Engineering (Undergraduate Students)**  
*Meeting Room 10*

**Biological Sciences (Graduate Students)**  
*Meeting Room 11*

**Chemistry and Chemical Sciences (Graduate Students)**  
*Meeting Room 12*

4:00pm - 6:30pm

**Concurrent Workshops Session 2**  
*(Meeting Room Level)*

**A. NSF Graduate Research Fellowship Program**  
*Meeting Room 2*

**Earnestine Psalmonds Easter**,  
*Program Director, EHR, NSF*

**B. Funding Your STEM Education (For Undergraduate and Graduate Students)**  
*Meeting Room 4*

**LaTayna Turner Braxton**, *Outreach Specialist, Institute of Broadening Participation, Moderator and Presenter*

**Bernard Batson**, *Director, Diversity Programs, University of South Florida*

# Agenda

	<p><b>Jami Joyner</b>, <i>Director, Diversity Programs in Engineering, Cornell University</i></p> <p><b>Yolanda Trevino</b>, <i>Assistant Vice President, Office of the Vice President for Diversity, Equity, and Multicultural Affairs, Indiana University</i></p>	4:15pm - 6:15pm	<p><b>E. EFRI-REM Networking Session Mentors (Teachers, PIs, Postdocs, Graduate Students)</b> <i>(Invitation Only)</i> <i>Meeting Room 5</i></p> <p><b>Christine Grant</b>, <i>Professor and Associate Dean, College of Engineering, NC State University</i></p> <p><b>Andrew Greenberg</b>, <i>Director REU, Chemistry of Materials for Renewable Energy, University of Wisconsin-Madison</i></p>
4:00pm - 5:00pm	<p><b>C. NSBP Session 2A: Black Physicists in Research, Industry and Academia</b> <i>Meeting Room 3</i></p> <p><b>Ayana Arce</b>, <i>Duke, University, Academia/Research</i></p> <p><b>Patricia (Padi) Boyd</b>, <i>NASA Goddard, Industry/National Facilities/Research</i></p> <p><b>Nicole Turner-Lee</b>, <i>MMTC (Multicultural Media, Telecom and Internet Council), Media/Industry</i></p>		
5:00pm - 6:30pm	<p><b>NSBP Session 2B: Preparing for Graduate School in Physics: What You Need to Know</b> <i>Meeting Room 3</i></p> <p><b>Michael Thoennessen</b>, <i>Michigan State University</i></p>	4:00pm - 6:30pm	<p><b>F. Finding Effective STEM Mentors</b> <i>Meeting Room 15</i></p> <p><b>Jamboor K. Vishwanatha</b>, <i>University of North Texas Health Science Center and National Research Mentoring Network</i></p>
4:15pm - 6:15pm	<p><b>D. EFRI-REM Networking Sessions For Research Participants</b> <i>(Invitation Only)</i> <i>Mount Vernon Square</i></p>	4:00pm - 6:30pm	<p><b>G. Tips and Coaching for Effective Oral and Poster Presentations</b> <i>Carnegie Room (Ballroom Level)</i></p> <p><b>Irene Hulede</b>, <i>Manager Student Programs, American Society for Microbiology (ASM)</i></p> <p><b>Beronda Montgomery</b>, <i>Associate Professor, Biochemistry and Molecular Biology, Michigan State University</i></p>
4:15pm - 4:45pm	<p><b>SWOT for Research Participants</b> <i>Mount Vernon Square</i></p> <p><b>Sohi Rastegar</b>, <i>Director, EFRI, NSF</i></p> <p><b>TJ Donahue</b>, <i>Teacher, Cherry Creek High School</i></p>	6:30pm	<p><b>Dinner on Your Own</b></p>
4:45pm - 5:30pm	<p><b>Career Panel</b> <i>Mount Vernon Square</i></p> <p><b>TJ Donahue</b>, <i>Moderator</i></p> <p><b>Panelists:</b> <b>Ashley Huderson, James Luther More, Elizabeth Parker, Chloe Poston, Rocio Chavela, and Isfahan Chambers</b></p>	6:30pm - 8:30pm	<p><b>Invitation-Only Meetings</b></p> <p><b>EFRI-REM Networking Session</b> <i>Mount Vernon Square</i></p> <p><b>Graduate Student Career Networking Session</b> <i>Grand Ballroom</i></p> <p><b>NSBP Networking Session</b> <i>Penn Quarter (Lobby Level)</i></p> <p><b>Science, Technology, and Disability Networking Session</b> <i>Meeting Room 16</i></p>
5:30pm - 6:15pm	<p><b>The Art of Networking</b> <i>Mount Vernon Square</i></p> <p><b>Jack Bobo</b>, <i>Chief Communications Officer, Intrexon Corp.</i></p>		

## Saturday, February 27, 2016

7:00 am	<b>Breakfast on Your Own</b>
7:00am - 2:00pm	<b>Registration</b> <i>Grand Registration</i>
7:30am - 5:30pm	<b>Judge's Room Opens</b> <i>Congressional Ballroom C</i>
7:30am - 8:00am	<b>Poster Presentations Sessions 3 and 4 (Set-Up)</b> <i>Renaissance Ballroom</i>
	<b>Oral Presentations Sessions 3 and 4 (Set-up)</b> <i>(See handout for room assignments.)</i>
8:00am - 12:30pm	<b>ADA Resource Room Opens</b> <i>Meeting Room 16</i>
8:00am - 10:30am	<b>Poster Presentations Session 3</b> <i>Renaissance Ballroom</i>
	<b>Oral Presentations Session 3</b> <i>(See handout for room assignments.)</i>
	<b>These include:</b> <b>Biological Sciences (Undergraduate Students)</b> <i>Meeting Room 6</i>
	<b>Chemistry and Chemical Sciences (Undergraduate Students)</b> <i>Meeting Room 7</i>
	<b>Mathematics and Statistics (Undergraduate Students)</b> <i>Meeting Room 8</i>
	<b>Social, Behavioral, and Economic Sciences (Undergraduate Students)</b> <i>Meeting Room 9</i>
	<b>Technology and Engineering (Undergraduate Students)</b> <i>Meeting Room 10</i>
	<b>Biological Sciences (Graduate Students)</b> <i>Meeting Room 11</i>
	<b>Computer Sciences and Information Management (Graduate Students)</b> <i>Meeting Room 12</i>

**Ecology, Environmental, and Earth Sciences (Graduate Students)**  
*Meeting Room 13*

**Social, Behavioral, and Economic Sciences (Graduate Students)**  
*Meeting Room 9*

**Technology and Engineering (Graduate Students)**  
*Franklin Square*

8:00am - 10:30am **Concurrent Workshop Session 3**  
*(Meeting Room Level)*

**A. NSBP Session 3: The Future of Physics Work in the New Century: A Roadmap for Physics Students**  
*Meeting Room 3*

**Student Oral Talks**

**B. Tips and Coaching for Effective Oral and Poster Presentationis**  
*Meeting Room 4*

**Irene Hulede**, *Manager Student Programs, American Society for Microbiology (ASM)*

**Beronda Montgomery**, *Associate Professor, Biochemistry and Molecular Biology, Michigan State University*

**C. EFRI-REM Networking Session**  
*(Invitation Only)*  
*Mount Vernon Square*

9:00am - 12:30pm **Exhibit Hall Opens - Session 3**  
*Congressional Ballroom A&B*

11:00am - 12:30pm **Poster Presentations Session 4**  
*Renaissance Ballroom*

**Oral Presentations Session 4**  
*(See handout for room assignments.)*

**These include:**  
**Biological Sciences (Undergraduate Students)**  
*Meeting Room 6*

**Chemistry and Chemical Sciences (Undergraduate Students)**  
*Meeting Room 7*



# Agenda

## Science and Mathematics Education (Undergraduate Students)

*Meeting Room 8*

## Mathematics and Statistics (Graduate Students)

*Meeting Room 9*

## Science and Mathematics Education (Graduate Students)

*Meeting Room 8*

## Technology and Engineering (Graduate Students)

*Meeting Room 11*

## Concurrent Workshop Session 4

*(Meeting Room Level)*

### A. NSBP Session 4: Joint Nuclear/ Astrophysics Session - Student Talks and Posters

*Meeting Room 3*

**Arthur Cole**, *Kalamazoo College*

### B. Resume Tips from Google

*Meeting Room 4*

**Caitlin Merrell**, *Google, Inc.*

### C. Biomedical Scientist (PhD) and Physician-Scientist (MD-PhD) Programs: How to Prepare and Apply

*Meeting Room 5*

**Victoria Freedman**, *Associate Dean for Graduate Programs, Graduate Division of Biomedical Sciences, Albert Einstein College of Medicine of Yeshiva University*

**Achsah D. Keegan**, *Associate Director, Medical Scientist Training Program (MSTP), Professor of Microbiology and Immunology, University of Maryland School of Medicine*

**Nancy Street**, *Associate Dean, UT Southwestern Graduate School*

### D. Computational, Visualization and Data Science: Solutions for World Changing Science

*Meeting Room 15*

**Linda Akli**, *Southeastern Universities Research Association (SURA)*

**Dwayne John**, *National Institute for Computational Sciences*

**Michael Smith**, *Intel*

## E. EFRI-REM Networking Session (Invitation Only)

*Mount Vernon Square*

12:30pm

## Lunch On Your Own

12:30pm

## Exhibits Close

*Renaissance Ballroom*

12:30pm - 3:30pm

## Judges Meeting and Lunch (Determining Awardees)

*Congressional Ballroom C*

2:00pm - 6:00pm

## Free Time for Tours or Special Meetings

6:00pm - 9:00pm

## Plenary Session 5 and Awards Banquet

*Grand Ballroom*

### Moderator:

**Shirley M. Malcom**, *Director, EHR, AAAS*

### Speaker:

**Juan E. Gilbert**, *The Andrew Banks Family Preeminence Endowed Chair and Associate Chair of the Research in the Computer and Information Science and Engineering Department, University of Florida*

## Recognition of David and Lucile Packard HBCU Scholars:

**James Stith**, *Vice President Emeritus, American Institute of Physics (AIP)*

## Recognition of the AAAS Policy Fellows, SACNAS Leadership Institute Alumni, and the L'Oreal USA for Woman in Science (FWIS) Fellows:

**Shirley M. Malcom**, *Director, EHR, AAAS*

## Presentation of EFRI-REM Poster Awards:

**Sohi Rastegar**, *Director of EFRI, NSF*

## Presentation of the 2016 ERN Video Competition Awards:

**Tarrick Clayton**, *AAAS*

6:00pm - 9:00pm	<p><b>Presentation of Oral and Poster Awards:</b> <b>Shirley M. Malcom</b>, <i>Director, EHR, AAAS</i> <b>Claudia Rankins</b>, <i>Program Director, HRD, NSF</i></p> <p><b>Presentation of Conference Incentives:</b> <b>AAAS ERN Conference Staff</b></p> <p><b>Closing Remarks:</b> Shirley M. Malcom, <i>Director, EHR, AAAS</i></p>
9:30pm - 12:00am	<p><b>Networking and Karaoke</b> <i>Grand Ballroom</i></p>

# Biographies



France A. Córdoba, *Director, NSF*

France A. Córdoba, was sworn in as director of the National Science Foundation (NSF) on March 31, 2014. Nominated by President Barack Obama to head the \$7.2-billion independent federal agency, she was confirmed by the U.S. Senate on March 12. Córdoba leads the only government

science agency charged with advancing all fields of scientific discovery, technological innovation, and science, technology, engineering and mathematics (STEM) education. NSF's programs and initiatives keep the United States at the forefront of science and engineering, empower future generations of scientists and engineers, and foster U.S. prosperity and global leadership.

Córdoba is president emerita of Purdue University, where she served as president from 2007 to 2012. From 2002 to 2007, she led the University of California, Riverside, as chancellor and was a distinguished professor of physics and astronomy. Córdoba was the vice chancellor for research and professor of physics at the University of California, Santa Barbara, from 1996 to 2002. From 1993 to 1996, Córdoba served as NASA's chief scientist. Prior to joining NASA, she was on the faculty of the Pennsylvania State University where she headed the department of astronomy and astrophysics from 1989 to 1993. Córdoba was deputy group leader in the Earth and space sciences division at Los Alamos National Laboratory from 1988 to 1989 and staff scientist from 1979 to 1989. She received her Bachelor of Arts degree from Stanford University and her doctorate in physics from the California Institute of Technology in 1979. More recently, Córdoba served as chair of the Board of Regents of the Smithsonian Institution and on the board of trustees of Mayo Clinic. She also served as a member of the National Science Board (NSB), where she chaired the Committee on Strategy and Budget. As NSF director, she is an ex officio member of the NSB.

Córdoba's scientific contributions have been in the areas of observational and experimental astrophysics, multi-spectral research on x-ray and gamma ray sources and space-borne instrumentation. She has published more than 150 scientific papers. In 1997, she was awarded an honorary doctorate by Loyola Marymount University, Los Angeles. She is a recipient of NASA's highest honor, the Distinguished Service Medal, and was recognized as a Kilby Laureate in 2000. The Kilby International Awards recognize extraordinary individuals who have made "significant contributions to society through science, technology, innovation, invention and education." Córdoba was elected to the American Academy of Arts and Sciences and is a National Associate of the National Academies. She is also a fellow of the American Association for the Advancement of Science (AAAS) and the Association for Women In Science (AWIS). Córdoba is NSF's 14th director, succeeding Subra Suresh who stepped down in March 2013.



Earnestine Psalmonds Easter, *Program Director, Division of Graduate Education, NSF*

Earnestine Psalmonds Easter is a program director in the Division of Graduate Education. As senior program officer and visiting scholar in the Policy and Global Affairs Division, National Academies, she served as study director for the 2009 Academies report entitled *Partnerships for Emerging Research Institutions* and co-study director of *Expanding Underrepresented Minority Participation: America's Science and Technology Talent at the Crossroads* (2010), a congressionally mandated study focused on the underrepresentation of minorities in science and engineering. She has represented the NSF on interagency science and engineering workforce initiatives including the Education and Workforce Development Subgroup of the National Science and Technology Council and consultation committee for the Department of Education Jacob K. Javits Fellowship Program.

Psalmonds Easter served on the board of directors for Oak Ridge Associated Universities and member of the North Carolina Board for Science and Technology, NASA Minority Business Resource Advisory Council, and executive committee of the Council on Research Policy and Graduate Education of the Association of Public and Land Grant Universities. She has held administrative positions at the Georgia Institute of Technology and Georgia State University, and she became the first vice chancellor for research at North Carolina A&T State University where she was also a professor of education. Psalmonds Easter served as principal investigator for projects funded by the National Science Foundation, National Institutes of Health, Department of Agriculture, Martin Marietta Energy Systems, Caterpillar Foundation, Environmental Protection Agency, and Department of Energy.

She has made numerous presentations, and is the co-author of copyrights to two software systems. She was honored by the Republic of Senegal through acceptance into the Order of the Lion. She received the baccalaureate and master's degree in education from Tuskegee University and PhD in higher education leadership with a concentration in management information systems from Georgia State University.



Joan Ferrini-Mundy, *Assistant Director, Directorate for Education and Human Resources, NSF*

Joan Ferrini-Mundy began her career as a high school mathematics teacher, and received her BS in Mathematics Education and an MS in Mathematics from the University of New Hampshire, where she

completed her PhD in Mathematics Education in 1980. She taught mathematics and co-founded the SummerMath for Teachers program at Mount Holyoke College, and served on the mathematics faculty at the University of New Hampshire from 1983 through 1999. From 1999 through 2010 she was at Michigan State University, serving as Associate Dean for Science and Mathematics Education in the College of Natural Science. Joan was a faculty member in the MSU departments of mathematics and teacher education, and was named a University Distinguished Professor of Mathematics Education.

Ferrini-Mundy has had a number of public policy-related positions, including as Director of the Mathematical Sciences Education Board at the National Research Council (1995-1999), and in various positions at the National Science Foundation (program officer in Teacher Preparation and Enhancement, 1989-91; and inaugural director, Division of Research on Learning in Formal and Informal Settings, 2007 – 2010). Currently Ferrini-Mundy is the NSF Assistant Director for Education and Human Resources, a position she has held since 2011, serving as a member of the U.S. Government Senior Executive Service.

Ferrini-Mundy was an ex officio member of the President's National Mathematics Advisory Panel, and co-chaired its Instructional Practices Task Group (2007-08). She was co-chair of the Federal Coordination in STEM Education Task Force which produced the 2013 *Federal Science, Technology, Engineering, and Mathematics (STEM) Education 5-Year Strategic Plan*. She has been a member of the Board of Directors of the National Council of Teachers of Mathematics, the Board of Governors of the Mathematical Association of America, and the American Mathematical Society's Committee for Research in Undergraduate Mathematics Education. She was president of the organization *Women and Mathematics Education*. Her research interests include calculus teaching and learning, mathematics teacher learning, and STEM education policy.



Yolanda S. George, *Deputy Director, Education and Human Resources, AAAS*

Yolanda Scott George is Deputy Director and Program Director, Education and Human Resources Programs, American Association for the Advancement of Science (AAAS). She has served as

Director of Development, Association of Science-Technology Centers (ASTC), Washington, DC; Director, Professional Development Program, University of California, Berkeley, CA; and as a research biologist at Lawrence Livermore Laboratory, Livermore, California involved in cancer research and cell cycle studies using flow cytometer and cell sorters.

George conducts evaluations, workshops and reviews for the National Institutes of Health and National Science Foundation, as well as for private foundation and public agencies, including the European Commission. She develops and coordinates conferences and workshops related to STEM undergraduate reform and recruitment and retention of minorities, women, and persons with disabilities in STEM. She works with UNIFEM, UNESCO, L'Oréal USA and Paris, and non-governmental organizations on gender, science, and technology initiatives related to college and university recruitment and retention and women leadership in STEM.

She currently serves as principal investigator (PI) or co-PI on several National Science Foundation (NSF) grants, including Vision and Change in Undergraduate Biology Education; National Science Education Digital Library (NSDL) Biological Sciences Pathways; Historically Black Colleges and Universities-Undergraduate Programs (HBCU-UP); Robert Noyce Teacher Scholarship Program; Transforming Undergraduate Education in STEM (TUES) and Virtual Faculty Workshop; and Women's International Research Collaborations at Minority Serving Institutions. In addition, George is the lead AAAS staff person for the L'Oréal USA Fellowships for Women in Science Program (postdoctoral fellowships) and the David and Lucile Packard Foundation HBCU Graduate Scholars Program (graduate school fellowships).

George serves on a number of boards or committees, including: Maria Mitchell Women in Science Awards Committee; McNeil/Lehrer Productions Online Science Reports Advisory Committee; Burroughs Wellcome Fund, Science Enrichment Program Grants, Advisory Board; The HistoryMakers, ScienceMakers, Advisory Board; and the National Advisory Board of The American Physical Society Physics Bridge Program. She has authored or co-authored over 50 papers, pamphlets, and hands-on science manuals. She received her B.S. and M.S. from Xavier University of Louisiana and Atlanta University in Georgia, respectively.



Juan E. Gilbert, *Andrew Banks Family Preeminence Endowed Chair and Associate Chair of the Research in the Computer and Information Science and Engineering Department, University of Florida*

Juan E. Gilbert is the Andrew Banks Family Preeminence Endowed Professor and Chair of the Computer and Information Science and Engineering Department at the University of Florida where he leads the Human Experience Research Lab. Gilbert has research projects in spoken language systems, advanced learning technologies, usability and accessibility, Ethnocomputing (Culturally Relevant Computing) and databases/data mining. He has published more than 140 articles, given more than 200 talks and obtained more

# Biographies

than \$24 million dollars in research funding. He is a Fellow of the American Association of the Advancement of Science. In 2012, Gilbert received the Presidential Award for Excellence in Science, Mathematics, and Engineering Mentoring from President Barack Obama. He also received the American Association for the Advancement of Science (AAAS) 2014 Mentor Award and was recently named one of the 50 most important African-Americans in Technology. He was also named a 2015-2106 AAAS-Lemelson Invention Ambassador, Speech Technology Luminary by Speech Technology Magazine and a national role model by Minority Access Inc. Gilbert is also a National Associate of the National Research Council of the National Academies, an ACM Distinguished Scientist and a Senior Member of the IEEE.

Recently, he was named a Master of Innovation by Black Enterprise Magazine, a Modern-Day Technology Leader by the Black Engineer of the Year Award Conference, the Pioneer of the Year by the National Society of Black Engineers and he received the Black Data Processing Association (BDPA) Epsilon Award for Outstanding Technical Contribution. In 2002, Gilbert was named one of the nation's top African-American Scholars by *Diverse Issues in Higher Education*. In 2013, the Black Graduate and Professional Student Association at Auburn University named their Distinguished Lecture Series in his honor. Gilbert testified before the Congress on the Bipartisan Electronic Voting Reform Act of 2008 for his innovative work in electronic voting. In 2006, Gilbert was honored with a mural painting in New York City by City Year New York, a non-profit organization that unites a diverse group of 17 to 24 year-old young people for a year of full-time, rigorous community service, leadership development, and civic engagement.



*Paul Gueye, President of NSBP and Physics Professor at Hampton University*

Paul Gueye is a Physics Professor at Hampton University, Hampton, VA. He obtained his PhD in nuclear physics from the University of Clermont-Ferrand (France) in 1994. He joined the Physics

Department at Hampton University in 1995 and participated in the first sets of experiments of the Department of Energy funded Jefferson laboratory (Newport News, VA). Gueye's research group encompasses multi-disciplinary areas such as accelerator physics, nuclear/high energy physics and medical physics. His group is presently building a low energy linear electron accelerator on the campus of Hampton University (the first ever at a Historically Black College).

Gueye is the current President of the National Society of Black Physicists that is co-organizing two sessions during the 2016 ERN Conference on opportunities at national laboratories (with

Jefferson Lab and Brookhaven National Lab) and career workshops (with the Society of Physics Students). He is also a member and committee chair in various professional organizations such as the American Institute of Physics, the American Association of Physicists in Medicine, the American Association of Physics Teachers, the American Physical Society, and the International Organization of Medical Physicists to name a few. He is strongly engaged in minority issues pertaining to science and heavily involved in K-12 STEM education.



*Sylvia M. James, Division Director, HRD, NSF*

Sylvia M. James is the Director of the Division of Human Resource Development (HRD) in the National Science Foundation's (NSF) Directorate for Education and Human Resources (EHR). As Division Director, she oversees a \$129 million budget and a

talented team of 25 scientific and administrative staff. The mission of HRD, as exemplified by its seven longstanding programs, is to contribute to the creation of "...a well-prepared and competitive workforce of scientists, technicians, engineers, mathematicians, and educators that reflects the diversity of the U.S. population."

During her 15 year tenure at NSF, she has served as the Acting Division Director of the Division of Human Resource Development, Acting Director and Acting Deputy Division Director of the Division of Research on Learning in Formal and Informal Settings (\$221 million budget), and the Lifelong Learning Cluster Coordinator. As Cluster Coordinator, she managed the Informal Science Education Program (ISE) and the associated budget of \$64 million, while also providing direction for the Innovative Technology Experiences for Students and Teachers (ITEST) program. She has served as a program officer for the ISE, ITEST, Faculty Early Career (CAREER), and the Advanced Technological Education (ATE) programs. She also worked with the Innovation through Institutional Integration (I3) and Academies for Young Scientists (AYS) programs. James previously served as the Lead Program Officer for ITEST, and its predecessor, the After School Centers for Exploration and New Discovery (ASCEND). She currently serves as the Co-Chair of the Federal Coordination in STEM (FC-STEM) Broadening Participation Interagency Working Group, the NSF liaison to the Liaison to President's Board of Advisors (PBA) on HBCUs, and has been a member of the Burroughs Wellcome Fund, Student Science Enrichment Program (SSEP) Advisory Committee since 2012. She is currently a member of the interagency working group for the White House Initiative on Educational Excellence for Hispanics (WHIEEH). She previously served on the Interagency Working Group for Youth Programs (2012-2014) and the 21st Century Community Learning Centers, Interagency Technical Working Group (2011-2014).

Prior to coming to NSF, she was the Director of Education at the National Aquarium in Baltimore where she was employed for 14 years. While at the National Aquarium, she directed teacher training and youth enrichment projects supported by national funders such as the Howard Hughes Medical Institute, DeWitt Wallace Readers Digest Fund, and the National Science Foundation, as well as an assortment of local foundations. She has served as an education consultant for science education radio, youth publications, and museums and an adjunct science faculty member at Sojourner-Douglass College in Baltimore. James is the author of seven children's books on marine animals, in addition to science education publications and reports. She holds a Bachelor of Science degree in Biology from Loyola University, a Master of Science degree from the Johns Hopkins University, and a Doctorate in Science Education from Morgan State University, all located in Baltimore, Maryland.



Shirley M. Malcom, *Director for Education and Human Resources (EHR) Programs at AAAS*

Shirley M. Malcom, Director for Education and Human Resources (EHR) Programs at AAAS, has served as a program officer in the NSF Science Education Directorate; an assistant professor of biology, University

of North Carolina, Wilmington; and a high school science teacher. Malcom received her PhD in Ecology from the Pennsylvania State University; Master's in Zoology from the University of California, Los Angeles; and Bachelor's with distinction in Zoology from the University of Washington. In addition, she holds 16 honorary degrees.

Malcom serves on several boards, including the Heinz Endowments, Public Agenda, Digital Promise, and the National Mathematics and Science Initiative. She serves as a trustee of Caltech and as a Regent of Morgan State University. In 2003, Malcom received the Public Welfare Medal of the National Academy of Science, the highest award granted by the Academy. She was a member of the National Science Board, the policymaking body of NSF, from 1994 to 1998, and of the President's Committee of Advisors on Science and Technology from 1994 to 2001.



Marcia McNutt, *Editor-in-Chief, Science, AAAS*

Marcia McNutt (BA in Physics, Colorado College; PhD in Earth Sciences, Scripps Institution of Oceanography) is a geophysicist who became the 19th Editor-in-Chief of *Science* in June 2013. From 2009

to 2013, McNutt was the Director of the U.S. Geological Survey, which responded to a number of major disasters during her tenure, including the Deepwater Horizon oil spill. For her work to help contain that spill, McNutt was awarded the U.S. Coast Guard's Meritorious Service Medal. She is a fellow of AGU, the Geological Society of America, AAAS and the International Association of Geodesy. Her honors and awards include membership in the National Academy of Sciences, the American Philosophical Society and the American Academy of Arts and Sciences, as well as honorary doctoral degrees from Colorado College, the University of Minnesota, Monmouth University and the Colorado School of Mines. McNutt was awarded the Macelwane Medal by AGU in 1988 for research accomplishments by a young scientist and the Maurice Ewing Medal in 2007 for her significant contributions to deep-sea exploration. She is the nominee of the Council of the National Academy of Science (NAS) to become President of the NAS in 2016.



Dionne Price, *Director of Division of Biometrics IV in the Office of Biostatistics, US Food and Drug Administration (FDA)*

Dionne Price is the Director of Division of Biometrics IV in the Office of Biostatistics, Office of Translational Sciences, Center for Drug Evaluation and Research, US Food

and Drug Administration (FDA). In this role, Price provides leadership to statisticians involved in the development and application of methodology used in the regulation of anti-infective, anti-viral, ophthalmology, over-the-counter, special pathogen, and transplant drug products. Price is a member of the Senior Leadership Team and Statistical Policy Council within the Office of Biostatistics. She has been actively involved in the FDA response to various public health crises including serving on the Antibacterial Drug Development Task Force and being a member of the team tasked with the review of therapeutics products for the treatment of Ebola.

Price holds a BS from Norfolk State University in Applied Mathematics, a MS in Biostatistics from the University of North Carolina at Chapel Hill and a PhD in Biostatistics from Emory University. Her research interests are focused on the design and analyses of clinical trials. Price has co-authored papers in such journals as *Statistics in Medicine*, *Clinical Trials*, and *Statistics in Biopharmaceutical Research*. She also has a passion for teaching and has taught classes for the FDA, Trinity University, and Georgetown University.

Price is an active member of the International Biometric Society (IBS), the American Statistical Association (ASA), and the Food and Drug Administration Statistical Association. Most recently, she served as Chair of the Biopharmaceutical Section of the ASA.



# Biographies

The Biopharmaceutical Section has over 2000 members who share a common interest in the application of statistics to the development and use of therapeutic drugs and devices in humans and animals. She has also served on the Regional Advisory Board and Regional Committee of the Eastern North American Region of IBS.



*Claudia Rankins, Program Director, HRD, NSF*

Claudia Rankins is a Program Officer in the Directorate for Education and Human Resources at the National Science Foundation, where she manages the Historically Black Colleges and Universities Undergraduate Program and the Centers for Research Excellence in Science and Technology. Prior to this post, Rankins served at Hampton University for 22 years in a number of capacities, including chair of the department of physics, assistant dean for research, and dean of the School of Science. Rankins holds a PhD in Physics from Hampton University. She is the co-founder of the Society of STEM Women of Color, Inc.



*Sohi Rastegar, Senior Advisor and Director, Office of Emerging Frontiers and Multidisciplinary Activities (EFMA), NSF, Directorate for Engineering*

Rastegar is the Senior Advisor and the Director of Office of Emerging Frontiers in Research and Innovation (EFRI) at the US National Science Foundation (NSF), Directorate for Engineering. He joined NSF in November 2003 following fifteen years of 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 BS (Highest Honors) and MS in Aerospace Engineering, and his PhD in Biomedical Engineering at the University of Texas at Austin. Rastegar has over 150 scientific publications and presentations and has trained 8 PhD and 14 MS students. He is 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 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. Rastegar is the recipient of numerous scientific and administrative awards and honors including the Select Young Faculty Award from the Texas

Engineering Experiment Station, and the Director's Superior Accomplishment Award from the National Science Foundation.



*Mario A. Rotea, Division Director, NSF, Engineering Education Center (EEC)*

Rotea is the inaugural head of the mechanical engineering department (ME) and holder of the Erik Jonsson Chair at the University of Texas at Dallas (UT Dallas). He is currently on leave at the National Science Foundation (NSF) to lead the Division of Engineering Education and Centers (EEC) in the Directorate for Engineering.

Rotea spent 17 years at Purdue University as a professor of aeronautics and astronautics, where he led the development of methods and tools for the analysis and design of control systems. His career includes two years as the director of the Control Systems Program at NSF. He also worked for the United Technologies Research Center as senior research engineer on advanced control systems for helicopters, gas turbines, and machine tools. Rotea was also the head of the Mechanical and Industrial Engineering Department at the University of Massachusetts Amherst, where he expanded the department in the area of wind energy and applications of industrial engineering to the health care sector.

Rotea is a fellow of the Institute of Electrical and Electronics Engineers (IEEE) for contributions to robust and optimal control of multivariable systems. He authored or coauthored 125 archival and conference publications. His publications have influenced the development of CAD tools for control systems design and inspired the application of robust control algorithms to mechanical and aerospace systems. His current research interests are in diagnostics and control of wind energy systems. He is cofounder of the NSF Industry University Cooperative Research Center WindSTAR, which is a collaboration between the University of Massachusetts Lowell and UT Dallas aimed at bringing together academia and industry to advance wind energy through industry-relevant research and education. Rotea graduated with a degree in electronic engineering from the University of Rosario in 1983. He received a master's degree in electrical engineering in 1988 and his PhD in control science and dynamical systems in 1990 from the University of Minnesota. Rotea was awarded the NSF Young Investigator Award, the Purdue Seed for Success Award, and the CT Sun School of Aeronautics and Astronautics Excellence in Research Award. He has been a member of the Board of Governors of the IEEE Control Systems Society.



*James Stith, Vice President Emeritus,  
American Institute of Physics*

James Stith is Vice President Emeritus for the American Institute of Physics (AIP). While an officer of the Institute, he had oversight responsibilities for AIP's Magazine Division, the Media and Government Relations Division, the

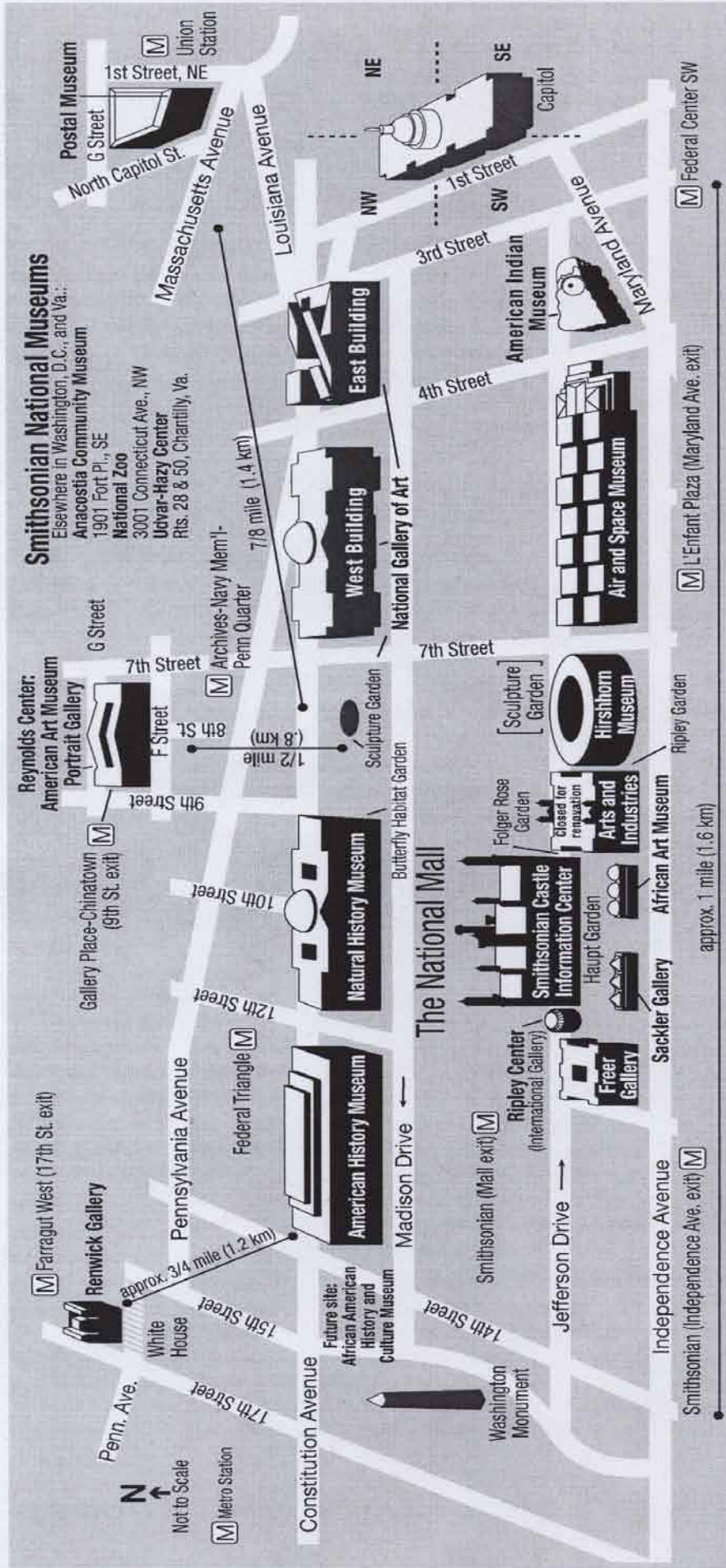
Education Division, the Center for the History of Physics, the Statistical Research Division and the Careers Division. His doctorate in physics was earned from The Pennsylvania State University, and his masters and bachelors in physics were received from Virginia State University. A physics education researcher, his primary interests are in program evaluation, and teacher Preparation and enhancement.

Stith was formerly a Professor of Physics at The Ohio State University and Professor of Physics at the United States Military Academy. He has also been a Visiting Associate Professor at the United Air Force Academy, a Visiting Scientist at the Lawrence Livermore National Laboratory, a Visiting Scientist at the University of Washington, and an Associate Engineer at the Radio Cooperation of America.

He is a past president of the American Association of Physics Teachers, past president of the National Society of Black Physicists, a Fellow of the American Association for the Advancement of Science, a Fellow of the American Physical Society, a Chartered Fellow of the National Society of Black Physicists, and a member of the Ohio Academy of Science. He was named a Distinguished Alumni of Penn State, the Alumni Association's highest award, an Honorary Member of Sigma Pi Sigma (its highest award) the physics honor society, a National Academies Education Mentor in the Life Sciences and a Science-Maker (by HistoryMakers). Additionally, he serves on a number of national and international advisory boards and has been awarded a Doctor of Humane Letters by his alma mater, Virginia State University. He is married and has three adult daughters and two grandchildren.



Smithsonian



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*University of Arkansas*

Lisav Abston-Leftridge  
*University of Chicago*

Daniel Akins  
*The City College of New York*

Linda Akli  
*SURA*

Deonte' Alexander  
*Dillard University*

Cara Altimus  
*AAAS Science and Technology Policy Fellowship*

Jaquelina Alvarez  
*University of Puerto Rico-Mayaguez*

Diana Azurdia  
*UCLA*

Sara Barber  
*US House of Representatives*

Anthony Belvin  
*U.S. Department of Energy*

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*Savannah State University*

Angela Birkes-Grier  
*University of Georgia*

Charles Bland  
*Mississippi Valley State University*

Constance Bland  
*Mississippi Valley State University*

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*Colorado School of Mines*

Kenneth Boutte  
*Xavier University of Louisiana*

Antonio Brathwaite  
*University of the Virgin Islands*

Ruby Broadway  
*Dillard University*

Travis Brown  
*Pomona College*

Reeshemah Burrell  
*Former AAAS Policy Fellow*

Eugene Butler, III  
*MYO Biofuels LLC*

Rickey Caldwell  
*Michigan State University*

Ahkinyala Cobb-Abdullah  
*Bethune-Cookman University*

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*American Chemical Society*

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*Michigan State University*

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Silvia Crivelli  
*Lawrence Berkeley National Laboratory*

Tomeka Cross  
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*Rensselaer Polytechnic Institute*

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Lisa Elliot  
*Rochester Institute of Technology*

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*Howard University*

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*University of Arkansas at Pine Bluff*

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*Michigan State University*

Trivia Frazier  
*Dillard University*

Gigi Galiana  
*Yale University*

Noel Gardner  
*Hinds Community College*

Matthew George, Jr.  
*Howard University*

Tonya Gerald-Goins  
*North Carolina Central University*

Wayne Gersie  
*Pennsylvania State University*

Taylor Gilliland  
*National Center for Advancing Translational Sciences*

Ben Glick  
*University of Chicago*

Hadiyah-Nicole Green  
*Tuskegee University*

# Judges

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Patrice Gregory  
*Sandia National Laboratories*

Michelle Guinn  
*Belmont University*

James Guyton  
*Pennsylvania State University*

D. Ahmasi Harris  
*BAE Systems*

Mary Harris  
*BioTechnical Communications, Inc.*

Kelley Harris Johnson  
*University of Wisconsin-Madison*

Joseph Henriquez  
*Michigan State University*

Karl Henry  
*J.F. Drake State Community and  
Technical College*

Joyce Hopson-King  
*Penn State University*

Conrad Ingram  
*Clark Atlanta University*

Joel Islam  
*NIH*

Frank James  
*Philander Smith College*

Dwayne John  
*National Institute for Computational  
Sciences*

Kayenda Johnson  
*CSRA*

Marian Johnson-Thompson  
*University of the District of Columbia*

Marcus Jones  
*Human Longevity, Inc.*

Laura Kasman  
*Medical University of South Carolina*

Paul Kim  
*Grambling State University*

Bob King  
*King Education Consultants*

Brenee King  
*Kansas State University*

Tina King  
*King Education Consultants*

Zuleikha Kurji  
*California Institute of Technology*

Jonathan Lambright  
*Savannah State University*

Mulatu Lemma  
*Savannah State University*

Mary Ann Leung  
*Sustainable Horizons Institute*

Wei Li  
*Texas Southern University*

Sharifa Love-Rutledge  
*Michigan State University*

Nicholas Luke  
*North Carolina A&T State University*

Arlene Maclin  
*Morgan State University*

Richard Mankin  
*USDA-ARS CMAVE*

Lee Anne Martinez  
*Colorado State University - Pueblo*

Larry Mattix  
*Norfolk State University*

Aliecia McClain  
*Norfolk State University*

Jeton McClinton  
*Jackson State University*

James McGee  
*Lone Star College*

Camille McKayle  
*University of the Virgin Islands*

Sydikav McKissic  
*Vanderbilt University*

Bob Megginson  
*University of Michigan*

Mark Melton  
*Saint Augustine's University*

Patrick Mensah  
*Southern University*

Renee Moore  
*Emory University*

Knashawn Morales  
*University of Pennsylvania*

David Morris  
*University of the Virgin Islands*

Syed Muniruzzaman  
*Xavier University*

Debra Murray  
*Baylor College of Medicine*

Grace Ndip  
*Virginia State University*

Tagbo Niepa  
*University of Pennsylvania*

Arthur Nonhof  
*Garden City Community College*

Shantisa Norman  
*Sandia National Laboratories*

Syam Nukavarapu  
*University of Connecticut Health Center*

Joseph Nunez  
*Schoolcraft College*

Chinwe Nyenke  
*Michigan State University*

Delois Oates  
*University of Arkansas at Pine Bluff*

Jarren Oates  
*University of Arkansas at Pine Bluff*

Joe Omojola  
*Southern University at New Orleans*

Chi Onyewu  
*Regeneron Pharmaceuticals*

Joel Oppenheim <i>NYU School of Medicine</i>	Adam Smith <i>Tougaloo College</i>	Gregory Triplett <i>Virginia Commonwealth University</i>
Robert Osgood <i>Rochester Institute of Technology</i>	Aubrey Smith <i>Montgomery College</i>	Delia Valles-Rosales <i>New Mexico State University</i>
Michael Page <i>Cal Poly Pomona University</i>	Michael Smith <i>Urban Health Solutions</i>	Susan VanderKam <i>Princeton University</i>
Sara Patterson <i>University of Wisconsin, Madison</i>	Rosie Sneed <i>University of the District of Columbia</i>	Jessica Venable <i>Virginia Commonwealth University</i>
David Paul <i>University of Arkansas</i>	Eduardo Socolovsky <i>University of Virginia</i>	Marisel Villafane-Delgado <i>Michigan State University</i>
Michelle Paulsen <i>Northwestern University</i>	Xueqing Song <i>University of the District of Columbia</i>	Kedra Wallace <i>University of Mississippi Medical Center</i>
Lance Pérez <i>University of Nebraska-Lincoln</i>	Hattie Spencer <i>Mississippi Valley State University</i>	Edward Walton <i>California State Polytechnic University</i>
Percy Pierre <i>Michigan State University</i>	Laurie Stepanek <i>American University</i>	Luisa Whittaker-Brooks <i>University of Utah</i>
Manu Platt <i>Georgia Institute of Technology</i>	Andrea Stith <i>University of Colorado Boulder</i>	Richard Whittington <i>Tuskegee University</i>
Dionne Price <i>Food and Drug Administration</i>	James Stith <i>American Institute of Physics</i>	Arlene Willis <i>Valencia College</i>
Cindy Quezada <i>The Midan Group</i>	Robert Stolz <i>University of the Virgin Islands</i>	Joycelyn Wilson <i>Spelman College</i>
Govindarajan Ramesh <i>Norfolk State University</i>	Alexei Stortchevoi <i>Harvard/MGH</i>	Danyelle Winchester <i>Johns Hopkins University</i>
Ronald Redwing <i>Penn State University</i>	Joshua Stough <i>George Mason University</i>	Sarah Melissa <i>Witiak Virginia State University</i>
Kateri Salk <i>Michigan State University</i>	Fedora Sutton <i>Science Visions Research LLC</i>	Katharina Wollenberg Valero <i>Bethune-Cookman University</i>
Marius Schamschula <i>Alabama A&amp;M University</i>	Sheila Thomas <i>Harvard Graduate School of Arts &amp; Sciences</i>	Victor Wyatt <i>USDA</i>
Maureen Scott <i>Norfolk State University</i>	Steven Thomas <i>Michigan State University</i>	Katrina Yamazaki <i>Cal State LA</i>
Randy Seay <i>University of Alabama at Birmingham</i>	Joseph Tiano <i>National Institutes of Health</i>	Ira Young <i>University of California, Berkeley</i>
Jean Shin <i>American Sociological Association</i>	Alade Tokuta <i>North Carolina State University</i>	Blair Zaid <i>Michigan State University</i>
Carmen Sidbury <i>Spelman College</i>		Nian Zhang <i>University of the District of Columbia</i>



# M System Map

wmata.com  
Customer Information Service: 202 637-7000  
TTY Phone: 202 636-3760  
Metro Transit Police: 202 962-2121

## Legend

- RD** Red Line • Glenmont / Shady Grove
- OR** Orange Line • New Carrollton / Vienna
- BL** Blue Line • Franconia-Springfield / Largo Town Center
- GR** Green Line • Branch Ave / Greenbelt
- YL** Yellow Line • Huntington / Fort Totten
- SV** Silver Line • Wiehle-Reston East / Largo Town Center

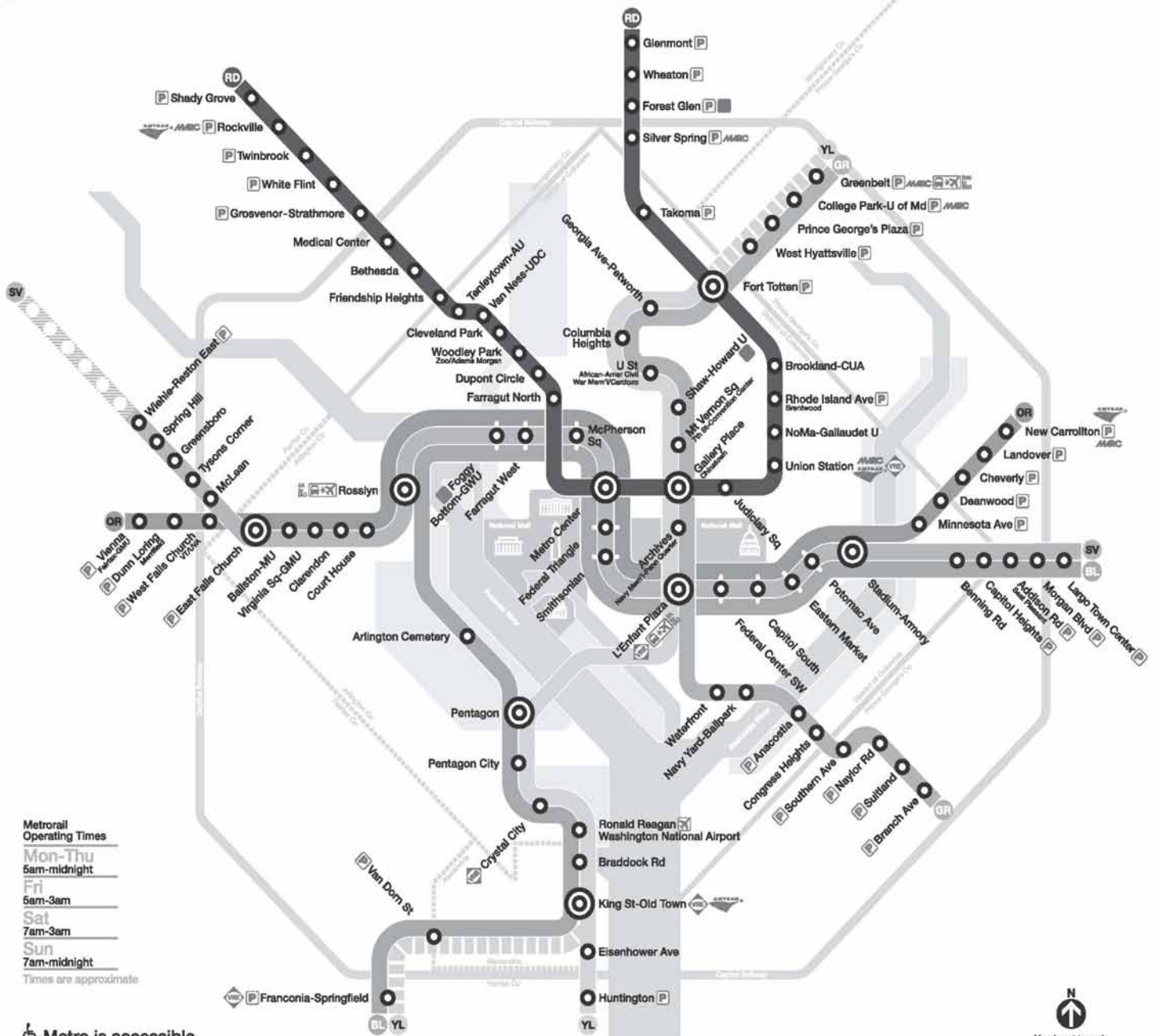
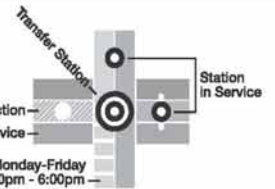
## Station Features

- Bus to Airport
- Parking
- Hospital
- Airport

## Connecting Rail Systems



Rush-Only Service: Monday-Friday  
6:30am - 9:00am 3:30pm - 6:00pm



**MetroRail Operating Times**  
Mon-Thu  
5am-midnight  
Fri  
5am-3am  
Sat  
7am-3am  
Sun  
7am-midnight  
Times are approximate

Metro is accessible.



No Smoking



No Eating or Drinking



No Animals (except service animals)



No Audio (without earphones)



No Littering or Spitting



No Dangerous or Flammable Items

# Exhibitor Listing

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21	Albert Einstein College of Medicine, Graduate Division of Biomedical Sciences	19	The Scripps Research Institute
30	American Society for Microbiology	36	Tuskegee University
22	California Institute of Technology	10	University of Alabama at Birmingham (UAB)
9	Columbia University Medical Center	13	University of California, San Diego
45	Columbia University School of Engineering	40	University of Chicago
29	D. E. Shaw Research	7	University of Chicago, Division of Biological Sciences
46	Embry-Riddle Aeronautical University	3	University of Maryland, Baltimore County (UMBC) Graduate School
25	Emory University Graduate and MD/PhD Programs	48	University of Michigan
27	Florida International University	14	University of Michigan - College of Pharmacy
51	Google	16	University of Missouri Graduate Life Sciences Programs
43	Harvard Graduate School of Arts and Sciences	49	University of North Texas
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50	Jackson State University / Book Series: Diversity in Higher Education	32	University of South Florida (USF)
18	Marian University College of Osteopathic Medicine	26	University of Tennessee, Knoxville Program for Excellence and Equity in Research (PEER)
37	Medical University of South Carolina	15	University of Texas Southwestern Medical Center
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41	National Research Mentoring Network	31	Vanderbilt MD/PhD and Biomedical PhD Programs
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28	Princeton University Graduate School		
34	Rensselaer Polytechnic Institute		
1	Rice University		
35	St. John's University		
12	Stony Brook University, The Graduate School		
6	Texas A&M University		

# Exhibitor Descriptions

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**Table 2**

**AAAS Science & Technology Policy Fellowships**

1200 New York Ave., NW  
Washington, DC 20005

**Contact(s): Barry Williams, [bwilliam@aaas.org](mailto:bwilliam@aaas.org)**

For more than 40 years, the AAAS Science & Technology Policy Fellowships have provided scientists and engineers with a unique opportunity to apply their knowledge and skills to national and international issues in the federal policy realm, while learning first-hand about establishing and implementing policy. Fellows serve yearlong assignments in the executive, legislative, and judicial branches of the federal government in the Washington, D.C. region.

**Table 21**

**Albert Einstein College of Medicine, Graduate Division of Biomedical Sciences**

1300 Morris Park Ave. (Belfer 203)  
Bronx, NY 10461

**Contact(s): Victoria Freedman, [victoria.freedman@einstein.yu.edu](mailto:victoria.freedman@einstein.yu.edu)**

Programs: PhD, MD/PhD, Postbaccalaureate Research Education Program (PREP), and Summer Undergraduate Research 'Research knows no Boundaries' in the Graduate Division of Biomedical Sciences at the Albert Einstein College of Medicine (Bronx, NY). Established in 1957, Einstein has long provided an exciting intellectual environment in which students acquire the knowledge and skills necessary to attain the PhD and MD/PhD degrees in the biomedical sciences.

Graduate students work with faculty at the cutting-edge of disease-relevant research in areas such as: Biochemistry, Bioinformatics, Biophysics, Cancer, Cell and Molecular Biology, Genetics, Immunology Infectious Diseases, Neurosciences, Stem Cell Biology, Systems Biology, Epidemiology, Virology and more! New PhD tracks in Clinical Investigation and Translational Science are also offered. A robust Career and Professional Development program, including career exploration and professional skills development, is offered to all graduate students.

All PhD, MD/PhD, and PREP students receive:

- Full tuition remission
- Annual stipend
- Health Insurance
- Subsidized housing

Contact us for more information: [www.einstein.yu.edu/ph](http://www.einstein.yu.edu/ph)

**Table 30**

**American Society for Microbiology**

**Education Department**  
1752 N Street, NW  
Washington, DC 20036

**Contact(s): Irene Hulede, [ihulede@asmusa.org](mailto:ihulede@asmusa.org)**

The American Society for Microbiology (ASM) is a professional society which offers several fellowships for undergraduate and graduate students interested in pursuing careers in microbiology. ASM is a sponsor of the Annual Biomedical Research Conference for Minority Students (ABRCMS) and organizes the conference each year. ABRCMS is currently one of the largest STEM conferences for underrepresented students in the U.S. To learn more visit [www.abrcms.org](http://www.abrcms.org).

**Table 22**

**California Institute of Technology**

**Caltech Graduate Admissions**

1200 East California Blvd  
Mail Code 230-87  
Pasadena, CA 91125

**Contact(s): Helen Duong, [hduong@caltech.edu](mailto:hduong@caltech.edu)**

The mission of the California Institute of Technology is to expand human knowledge and benefit society through research integrated with education. We investigate the most challenging, fundamental problems in science and technology in a singularly collegial, interdisciplinary atmosphere, while educating outstanding students to become creative members of society. The academic work of the Institute is organized into six divisions: Biology and Biological Engineering, Chemistry and Chemical Engineering, Engineering and Applied Science, Geological and Planetary Sciences, Humanities and the Social Sciences, and Physics, Mathematics and Astronomy. Graduate study at the Institute is divided further into a number of individual graduate options (degree programs), which are supervised by those professors whose interests and research are closely related to the area of the option. Entering graduate students are admitted into one of these options.

**Table 9**

**Columbia University Medical Center**

630 West 168th Street  
P&S 3-435  
New York, NY 10032

**Contact(s): Fred Lowe, [fl12@columbia.edu](mailto:fl12@columbia.edu)  
Ciara Torres, [ciara.a.torres@gmail.com](mailto:ciara.a.torres@gmail.com)**

The Columbia University Medical Center is home to over 2,000 basic and clinical faculty and 3,000 students. In addition to the

graduate school, this intellectual powerhouse incorporates schools of medicine, dentistry, nursing and public health. The campus also includes the New York Presbyterian Hospital, ranked within the top 10 in the nation. Columbia's diverse academic resources, as well as its proximity to other scientific institutions offers endless opportunities to attend data clubs, lectures and symposia as well as to pursue research collaborations or learn new techniques.

We offer the following range of nationally top-ranked PhD Programs:

- Biochemistry and Molecular Biophysics
- Biomedical Informatics
- Genetics and Development
- Integrated Program in Cellular, Molecular and Biomedical Studies
- Microbiology, Immunology and Infection
- Neurobiology and Behavior
- Nutritional and Metabolic Biology
- Pathobiology and Molecular Medicine
- Pharmacology and Molecular Signaling
- Physiology and Cellular Biophysics

Regardless of program affiliation, students have access to all training faculty when selecting their research direction, ensuring that each student receives optimal training and research experience. In addition to coursework, the first year curriculum emphasizes research rotations in three different laboratories including those outside the home program. An elective is also available providing students an opportunity to interface with physicians and patients thereby deepening their understanding of the fundamentals of human disease as they relate to diagnosis and treatment.

## Table 45

### Columbia University School of Engineering

500 West 120 Street, MC 4708  
Room 530 Mudd  
New York, NY 10027

**Contact(s): Tiffany Simon, tms26@columbia.edu**

Columbia University's Fu Foundation School of Engineering and Applied Science offers graduate degrees in applied physics, applied mathematics, biomedical engineering, chemical engineering, civil engineering, construction engineering management, data science, engineering mechanics, computer engineering, computer science, Earth and environmental engineering, electrical engineering, financial engineering, industrial engineering, operations research, management science and engineering, materials science engineering, medical physics, mechanical engineering, metallurgical engineering, mining engineering, and solid-state science engineering. Distance education and MS/MBA programs are also available. A

joint master's degree program in Computer Science and Journalism is also available.

## Table 29

### D. E. Shaw Research

120 West 45th St.  
34th Floor  
New York, NY 10036

**Contact(s): Melanie Lahti, melanie.lahti@deshawresearch.com**  
**Zelimir Galjanic, zelimir.galjanic@deshawresearch.com**

D. E. Shaw Research ('DESRES') is an independent research laboratory that conducts basic scientific research in the field of computational biochemistry under the direct scientific leadership of Dr. David E. Shaw. DESRES is currently focusing primarily on molecular simulations involving proteins and other biological macromolecules of potential interest from both a scientific and a pharmaceutical perspective. The group includes computational chemists and biologists, computer scientists and applied mathematicians, and computer architects and engineers, all working collaboratively within a tightly coupled interdisciplinary research environment. Current activities range from the design of specialized, massively parallel super-computers and numerical algorithms for ultra-high-speed molecular dynamics simulations to the use of such simulations to elucidate the molecular mechanisms of cancer and other diseases.

## Table 46

### Embry-Riddle Aeronautical University

600 S. Clyde Morris Blvd.  
Daytona Beach, FL 32114

**Contact(s): Caroline Day, caroline.day@erau.edu**

As the world's largest and most respected university specializing in aviation and aerospace, Embry-Riddle has been at the forefront of ground-breaking aeronautical milestones since the early days of flight. With nearly 120,000 graduates around the globe, Embry-Riddle is not only leading the future, it is changing it. Whether you're interested in applied science, aviation, business, computers and technology, engineering, security, intelligence, and safety, or space, Embry-Riddle has a major for you. At Embry-Riddle, you'll get hands-on experience from the time you get to campus. Explore the skies. Develop a rocket launch system. Design airlines, networks and fleets to maximize profitability.

Embry-Riddle Aeronautical University's 185-acre eastern campus is located in Daytona Beach, Florida, home to NASCAR's Daytona 500 and 'The World's Most Famous Beach.' With year-round mild temperatures and more than 229 days of sunshine a year, it's a top vacation destination and an ideal place to live,

# Exhibitor Descriptions

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study, and fly. The campus serves a diverse student body of approximately 4,500 undergrads and 500 graduate students from 50 states and nearly 100 countries.

## Table 25

### Emory University Graduate and MD/PhD Programs

1510 Clifton Road, Room 4117  
Atlanta, GA 30322

**Contact(s): Annie McPherson, [amcphe3@emory.edu](mailto:amcphe3@emory.edu)**

At the James T. Laney School of Graduate Studies, we are committed to graduate education that provides students with deep expertise in their chosen fields, creativity to cross disciplinary boundaries, and courage to take on the most important and complex problems of our time. As a world-class research university, we recognize that innovative research and scholarship must include diversity in thought, experience and culture. Our university is small enough to allow for meaningful human interactions within and among programs, yet large enough to support a full array of resources and opportunities across the intellectual landscape.

Our PhD programs provide students with a tuition scholarship, health insurance and stipend. The application fee is waived for participants at ERN. There are eight interdisciplinary and interdepartmental PhD programs in the Graduate Division of Biological and Biomedical Sciences. Students have great flexibility in choosing a mentor and project for their dissertation research. Faculty have appointments in Emory College, School of Public Health, Winship Cancer Institute, Woodruff Health Sciences Center, American Cancer Society, CDC, or Yerkes National Primate Research Center. The MD/PhD Program provides the opportunity for exceptionally bright and dedicated students to acquire both clinical and basic research training to pursue careers in academic medicine. These physician-scientists will contribute to expanding the fields of science and medicine.

## Table 27

### Florida International University

11200 SW 8th Street PC 230  
Miami, FL 33199

**Contact(s): Albert Hoyt III, [ahoytiii@fiu.edu](mailto:ahoytiii@fiu.edu)**

Florida International University is made up of a community of scholars whose research pushes the frontiers of knowledge. The creative, energetic minds of our faculty and students promise a future of compelling discovery and limitless creativity, while solving the world's problems. FIU offers graduate assistantships, fellowships and scholarship opportunities in more than 180 graduate degree and certificate programs. A number of our programs - international relations, Latin American and Caribbean studies, music, political science, creative writing, public

administration, among others - are regularly cited among the nation's best. As a graduate student at FIU, you can collaborate with top scholars who are shaping our future. You can study in Miami, a city of remarkable resources located at the crossroads of two continents. You can have access to the latest technologies and facilities while gaining a competitive edge in your field.

FIU is Miami's first and only public research university. Be Worlds Ahead!

## Table 51

### GOOGLE

2590 Pearl Street  
Suite 110  
Boulder, CO 80302

**Contact(s): Caitlin Merrell, [cmerrell@google.com](mailto:cmerrell@google.com)**

How do we organize the world's information and make it universally accessible and relevant? Google started with that question. Today, Googlers continue to ask hard questions, and with a healthy disregard for the impossible, they are building better answers. From self-driving cars to translating the web into every known language, we create, craft, and code technology that makes a difference. We invite you to bring your questions to our booth, let's build the answers together. Check out our career opportunities at [google.com/students](http://google.com/students).

## Table 43

### Harvard Graduate School of Arts and Sciences

1350 Massachusetts Ave  
Smith Campus Center, Ste 350  
Cambridge, MA 02138

**Contact(s): Sheila Thomas, [stthomas@fas.harvard.edu](mailto:stthomas@fas.harvard.edu)**

Please visit table 43 for more information.

## Table 38

### Indiana University

1320 E. 10th Street, E546  
Bloomington, IN 47405

**Contact(s): Bianca Evans, [biaevans@iu.edu](mailto:biaevans@iu.edu)**

The University Graduate School is a recognized leader in developing new concepts and best practices for graduate education, which makes Indiana University Bloomington a premier location to earn your graduate degree. As of fall, 2014, the University Graduate School offers a total of 43 certificate programs, 156 Master's degrees, and 133 PhD degree programs state-wide. Through our work with national higher education

organizations such as Council of Graduate Schools, Committee on Institutional Cooperation, Educational Testing Service, McNair Scholars Program, we take the lead in forging the future directions of graduate education.

The mission of The University Graduate School is to promote and support excellence in graduate education for individual students, faculty, departments, and the university as a whole. In accomplishing this mission, The University Graduate School values excellence, integrity, collaboration, efficiency, innovation, and inclusiveness in all that it does. These values are central to the school's role in encouraging a creative environment for scholarship, research, teaching, and learning.

For more information on graduate programs, admissions, fellowships, and campus visits at Indiana University, visit [www.graduate.indiana.edu](http://www.graduate.indiana.edu).

## Table 50

### Jackson State University

#### Book Series: Diversity in Higher Education

1400 John R. Lynch Street  
Jackson, MS 39217

**Contact(s):** Jeton McClinton, [jeton.mcclinton@jsums.edu](mailto:jeton.mcclinton@jsums.edu)

Diversity in Higher Education book series addresses topics regarding diversity or the lack thereof in a wide range of higher education settings. Volume 17 addresses the integration of undergraduate research (UGR) in the curricula at Historically Black Colleges and Universities. The purpose of Volume 17 is to tell the story about the history, successes and processes of UGR programs on HBCU campuses.

## Table 18

### Marian University College of Osteopathic Medicine (MU-COM)

3200 Cold Spring Road  
Indianapolis, IN 46222

**Contact(s):** Dan Kallenberger, [dlkallenberger@marian.edu](mailto:dlkallenberger@marian.edu)

The Marian University College of Osteopathic Medicine (MU-COM) in Indianapolis recognizes the power of the osteopathic medical philosophy, which treats the root cause of illness, not just symptoms, and promotes a lifetime of wellness. The program emphasizes osteopathic training in all areas of medicine, delivered by a dynamic academic community. At MU-COM, which is Indiana's only osteopathic medical school, students experience competency- and system-based courses with clinical cases and small group discussion, over 60 hospital affiliations, faculty practitioners, research programs, high-tech facilities, and a vibrant campus life.

More information on our great location, research opportunities, and nationally recognition clinical partners can be found online at [www.marian.edu/medicalschooll](http://www.marian.edu/medicalschooll).

We appreciate your interest and look forward to seeing your application soon!

## Table 37

### Medical University of South Carolina

68 President Street  
MSC 501  
Charleston, SC 29425

**Contact(s):** Laura Kasman, [kasmanl@musc.edu](mailto:kasmanl@musc.edu)

As a free-standing academic health center, the Medical University of South Carolina (MUSC) has a special mission to translate advances in fundamental science to improvements in health care. The College of Graduate Studies at MUSC offers M.S., PhD, M.D./PhD, D.M.D./PhD, and Pharm.D./PhD programs in the biomedical sciences. Located in scenic Charleston, SC we offer competitive stipends, paid health insurance and paid tuition for Ph.D. students. We also have a robust Summer Undergraduate Research Program that provides funding for undergraduates to obtain research experience for 10 weeks in the summer.

PhD students participate in an interdisciplinary first year curriculum composed of comprehensive didactic units, self-selected laboratory rotations, and seminars to teach skills important for successful scientific careers.

Please visit our website at: <http://academicdepartments.musc.edu/grad> for more information.

## Table 8

### Michigan State University Graduate School

466 W. Circle Drive  
Second Floor, Room 230  
East Lansing, MI 48824

**Contact(s):** Steven Thomas, [deshawn@msu.edu](mailto:deshawn@msu.edu)

We are accepting applications for graduate school and summer internships from students interested in the Science, Technology, Engineering and Mathematics fields as well as the Social Behavioral Sciences (Sociology, Psychology, Linguistics, Criminal Justice, Communication, Economics, Anthropology, etc). Post-doctoral and Post-baccalaureate opportunities are also available in various departments.

# Exhibitor Descriptions

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## Table 23

### Morehouse School of Medicine Graduate Program

720 Westview Drive SW  
Hugh Gloster Building, Room 209  
Atlanta, GA 30310

**Contact(s):** Jamillah McDaniel, [jmcdaniel@msm.edu](mailto:jmcdaniel@msm.edu)  
Brandon Walton, [bwalton@msm.edu](mailto:bwalton@msm.edu)  
Ward Kirlin, [wkirlin@msm.edu](mailto:wkirlin@msm.edu)

The Graduate Education in Biomedical Sciences (GEBS) Program at Morehouse School of Medicine offers programs leading to the PhD in Biomedical Sciences as well as MS degrees in Biomedical Research, Biomedical Technology, Medical Sciences and Clinical Research. Morehouse School of Medicine is a Historically Black College and University located in Atlanta, GA. The program develops leaders in research who will advance scientific knowledge, enhance health care and strive to eliminate racial, cultural, and socioeconomic disparities in health and disease. Some of the research strengths of the institution include Cancer, Cardiovascular Disease, Circadian and Sleep Biology, HIV/AIDS and Neuroscience.

## Table 41

### National Research Mentoring Network

3500 Camp Bowie Blvd  
Fort Worth, TX 76107

**Contact(s):** Jamboor Vishwanatha,  
[jamboor.vishwanatha@unthsc.edu](mailto:jamboor.vishwanatha@unthsc.edu)

The National Research Mentoring Network (NRMN), funded by the National Institutes of Health, is a nationwide consortium of health science investigators, professionals and institutions collaborating to provide students and scientists across all career stages of health science research with mentorship, networking, professional development and research resources. As an NRMN mentee or mentor, you can: Participate in mentorship in your field that directly addresses diversity, inclusivity, and culture through NRMN's virtual mentoring platform; Participate in synchronous and asynchronous online, as well as face-to-face, evidence-based training programs such as career coaching and train-the-trainer workshops; Receive intensive coaching to develop a competitive grant proposal for a research project and/or research career development award in any biomedical or bio-behavioral discipline (this opportunity is targeted to post-doctoral fellows and early career faculty); Learn about grant funding opportunities; Stay up-to-date on NRMN's programming and nationwide diversity efforts through webinars, videos, news, and links to ongoing professional development opportunities.

Mentors can avail themselves of additional opportunities such as: Apply to become an NRMN 'Coach-in-Training' for one of the network's four intensive coaching programs for grant proposal writing and professional development (this opportunity is for

more senior researchers who are committed to the career advancement of investigators from diverse backgrounds and desire to implement NRMN coaching models in the near future); Get certified or participate in training opportunities that leads to a 'NRMN Master Mentor' Certification.

## Table 33

### Norfolk State University

#### CMR

700 Park Avenue  
Norfolk, VA 23504

**Contact(s):** Jennifer West, [jdwest@nsu.edu](mailto:jdwest@nsu.edu)

Visit table 33 for complete information.

## Table 20

### Northwestern University, The Graduate School

633 Clark Street  
Rebecca Crown Center, 1-502  
Evanston, IL 60208-1113

**Contact(s):** Noelle Wakefield,  
[noelle.wakefield@northwestern.edu](mailto:noelle.wakefield@northwestern.edu)  
Michelle Paulsen, [m-paulsen@northwestern.edu](mailto:m-paulsen@northwestern.edu)

Founded in 1851, Northwestern University ([www.northwestern.edu](http://www.northwestern.edu)) is a private research university with a deep history of academic, professional and personal excellence. Northwestern combines innovative teaching and pioneering research in a highly collaborative environment and provides students and faculty exceptional opportunities for intellectual, personal and professional growth. Northwestern is home to about 8,000 full-time undergraduates and 8,000 full-time graduate students. Including part-time students, the University's total enrollment is approximately 19,000. The university employs 3,820 full-time faculty and 6,000 full-time staff members among its 12 schools and colleges.

## Table 17

### NYU School of Medicine

#### Sackler Institute of Biomedical Sciences, NYU

341 E 25th St  
New York, NY 10010

**Contact(s):** Joel Oppenheim, [joel.oppenheim@nyumc.org](mailto:joel.oppenheim@nyumc.org)  
Susanne Tranguch, [susanne.tranguch@nyumc.org](mailto:susanne.tranguch@nyumc.org)

The Sackler Institute of Graduate Biomedical Sciences at NYU School of Medicine is a division of New York University's Graduate School of the Arts and Sciences (GSAS). Our distinguished faculty, coupled with our interdisciplinary training programs in various basic medical sciences, helps our graduate

students prepare for their career in biomedical research and successfully obtain their PhD or MD/PhD in science. We also offer a summer undergraduate research program (SURP). Our mission is to train students to become independent scientists and researchers. Our students learn how to hone their innate curiosity to become critical thinkers, problem solvers, team players, and leaders - all skills required when pursuing any career.

For more information, visit our website at <http://www.med.nyu.edu/sackler/>.

## Table 5

### Ohio State University Graduate School

230 North Oval Mall  
250 University Hall  
Columbus, OH 43210

**Contact(s):** Cynthia Freeman, [freeman.414@osu.edu](mailto:freeman.414@osu.edu)

Ohio State offers over 90 doctoral programs and approximately 115 master's degrees. You can augment those programs with numerous interdisciplinary specializations and graduate minors. You also have a unique opportunity to participate in research and other programming being undertaken in Ohio State's numerous interdisciplinary research centers and institutes.

## Table 44

### Pennsylvania State University

208 Hammond Building  
University Park, PA 16802

**Contact(s):** Stephanie Danette Preston, [sdp163@psu.edu](mailto:sdp163@psu.edu)  
Wayne Gersie, [wgersie@engr.psu.edu](mailto:wgersie@engr.psu.edu)  
James Guyton, [jrg6@psu.edu](mailto:jrg6@psu.edu)  
Joyce Hopson-King, [JUH4@psu.edu](mailto:JUH4@psu.edu)

Penn State's Graduate School is one of the largest in the nation with more than 10,000 graduate students enrolled at the University Park campus, Penn State Erie, The Behrend College; Penn State Great Valley; Penn State Harrisburg; and the Penn State College of Medicine. Certain professional degree programs (M.Eng., M.Agr., M.Ed., etc.) are also offered at other locations and through the Penn State World Campus. We take pride in being one of the largest graduate schools in the nation and in our exemplary faculty and high-quality degree programs, many of which are nationally ranked.

The Graduate School is committed to ensuring that all individuals regardless of ethnicity, gender, or other personal characteristics are afforded the opportunity to achieve their full potential as scholars and professionals. Our international enrollment has increased to an all-time high with more than

2,600 students from China, India, South Korea, Taiwan, Canada, Mexico, Brazil and a host of other countries. Furthermore, we are particularly proud of our efforts directed toward increasing the enrollment of underrepresented graduate students.

## Table 28

### Princeton University Graduate School

Frick Laboratory  
Princeton University  
Princeton, NJ 08544

**Contact(s):** Susan VanderKam, [skillian@princeton.edu](mailto:skillian@princeton.edu)

Princeton University offers advanced degrees spanning the humanities, social sciences, natural sciences and engineering. Doctoral education available in all disciplines emphasizes original and independent scholarship, while master's degree programs in architecture, engineering, finance, public affairs and public policy prepare candidates for careers in public life and professional practice.

These programs share a number of distinctive and desirable features: a high level of engagement between distinguished faculty and outstanding students, a campus environment that fosters a community of scholars, a depth of financial support that allows concentration on academics, and degree programs with demonstrated success in educating graduates for careers in academia, government, and the non-profit and corporate sectors. Complementing and enriching these degree-granting programs are a wide range of interdisciplinary units that promote intellectual activities and research across departmental and divisional boundaries.

## Table 34

### Rensselaer Polytechnic Institute Graduate Admissions

110 8th Street  
Troy, NY 12309

**Contact(s):** Jarron Decker, [deckej3@rpi.edu](mailto:deckej3@rpi.edu)  
Michael Conward, [conwam5@rpi.edu](mailto:conwam5@rpi.edu)

Rensselaer Polytechnic Institute is the nation's oldest technological research university. Located in the Capital District of New York State, Rensselaer offers a broad range of graduate programs from five schools—Engineering, Science, Lally School of Management and Technology, Architecture, and Humanities and Social Sciences. Unique programs include interdisciplinary degrees in information technology, the MFA and PhD in Electronic Arts, and extensive opportunities in biotechnology, nanotechnology, and energy and the environment. Students also have the opportunity to choose from a number of dual-degree options.



# Exhibitor Descriptions

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**Table 1**

**Rice University**

**Graduate Studies Office**

Duncan Hall 1091/MS641  
6100 Main Street  
Houston, TX 77005

**Contact(s): Theresa Chatman, [tlc@rice.edu](mailto:tlc@rice.edu)**

Rice University is the premier private university in the south central US, and has some of the strongest doctoral programs in the nation. As the intellectual hub of one of the most ethnically diverse cities in the world, Rice offers an ideal community for diverse scholars. Rice is consistently ranked among top universities; our graduate students work on cutting-edge research with outstanding professors, including Nobel Prize laureates. Your doctoral degree at Rice can be free! Rice University provides doctoral students with financial support in the form of generous stipends, tuition waivers, health insurance subsidies, application fee waivers, and more. As part of our programs to enhance the student experience, we also hold community-building programs, mentoring, and professional development activities for our doctoral scholars. These activities have made our underrepresented student graduation rate exceed that of the majority students. We will provide you with robust mentoring in many areas to ensure your future success! Transform your life today - become a Rice PhD student. Don't wait until graduation to apply to our graduate programs, in fact; you should contact us nine to 15 months before our standard August start date. Learn more by emailing Theresa Chatman at [tlc@rice.edu](mailto:tlc@rice.edu) or visit [graduate.rice.edu](http://graduate.rice.edu).

**Table 35**

**St. John's University**

8000 Utopia Parkway  
Queens, NY 11514

**Contact(s): Sandra Altman, [altmans@stjohns.edu](mailto:altmans@stjohns.edu)**

St. John's University, a Catholic university in the Vincentian tradition, offers world class academic programs, taught by internationally recognized faculty, in a high-tech environment. The University offers over 100 career focused graduate degree programs on three residential campuses in the New York City area, a campus in Oakdale NY, and a Graduate Center in Rome, Italy. Classes are offered in convenient locations with flexible delivery options and schedules to meet the needs of adults balancing work and family.

Graduate programs are available in the following areas:

- St. John's College of Liberal Arts and Sciences
- College of Pharmacy and Health Sciences
- College of Professional Studies
- The Institute of Biotechnology
- Rome Campus - MBA and Master of Arts in Government and Politics

- Peter J. Tobin College of Business
- School of Education

We encourage you to visit our website—[www.stjohns.edu](http://www.stjohns.edu)—to read about our individual programs and how they can advance your career.

**Table 12**

**Stony Brook University**

**The Graduate School**

2401 Computer Science Building  
Center for Inclusive Education  
Stony Brook, NY 11794

**Contact(s): Kathrynne Piazzola, [donna.scala@stonybrook.edu](mailto:donna.scala@stonybrook.edu)  
Angel Gonzalez, [angel.i.gonzalez@stonybrook.edu](mailto:angel.i.gonzalez@stonybrook.edu)**

Stony Brook is internationally recognized as a major research university that has the finest graduate degree programs available. The collaborative relationship between Stony Brook, Brookhaven National Laboratory, and Cold Spring Harbor Laboratory make the University an ideal choice for students interested in the biomedical sciences. Stony Brook is proud to be the lead institution of the State University of New York Alliance for Graduate Education and the Professoriate (SUNY AGEP) whose mission is to support underrepresented minority students pursuing doctoral degrees in science, technology, engineering and mathematics (STEM) fields. The Graduate School also houses the prestigious W. Burghardt Turner Fellowship for underrepresented Students.

**Table 6**

**Texas A&M University**

112 Jack K. Williams Admin Building  
1113 TAMU  
College Station, TX 77843

**Contact(s): Robert Hammarberg, [robert@tamu.edu](mailto:robert@tamu.edu)**

The flagship of the Texas A&M University System, Texas A&M University is a tier-one research institution and member of the Association of American Universities. Ranked 1st in Universities with current Fortune 100 CEOs, 27th among the Top 100 Colleges for Hispanics, and among the top 10 U.S. Institutions for doctorates awarded to both Hispanics and African Americans, Texas A&M University is committed to the discovery, development, communication, and application of knowledge in a wide range of academic and professional fields. Its mission of providing the highest quality programs to its approximately 14,000 graduate and professional students is inseparable from its mission of developing new understandings through research and creativity. Students are prepared by outstanding faculty to assume roles in leadership, responsibility, and service to society. It welcomes and serves persons of all racial, ethnic, and

geographic groups, women and men alike, as it addresses the needs of an increasingly diverse population and global economy.

## Table 11

### **Texas Tech University Health Sciences Center, Graduate School of Biomedical Sciences**

3601 4th St., STOP 6206  
Lubbock, TX 79430

**Contact(s): Terri Lloyd, [terri.lloyd@ttuhsc.edu](mailto:terri.lloyd@ttuhsc.edu)**

The Graduate School of Biomedical Sciences at Texas Tech University Health Sciences Center offers MS, MPH, PhD, MD/MS, MD/MPH, and MD/PhD degrees. Programs are available in Biotechnology, Biomedical Sciences, Public Health, and Pharmaceutical Sciences. PhD concentrations within Biomedical Sciences are: Biochemistry, Cellular & Molecular Biology, Immunology & Infectious Diseases, Molecular Biophysics, and Translational Neuroscience and Pharmacology. We also offer a Biomedical Sciences MS concentration in Graduate Medical Sciences. In addition, two summer research internship programs are available for undergraduates.

## Table 19

### **The Scripps Research Institute**

10550 North Torrey Pines Road  
TRY-10  
La Jolla, CA 92037

**Contact(s): Dawn Eastmond, [eduprgm@scripps.edu](mailto:eduprgm@scripps.edu)**

The Scripps Research Institute is a non-profit research institution whose philosophy emphasizes the creation of basic knowledge for its application in medicine, the pursuit of scientific advances through interdisciplinary collaborations and the education and training of researchers preparing to meet the scientific challenges of the future. With an emphasis on individualized instruction, adherence to the highest scientific standards and a rich tradition of research excellence, Scripps provides an unparalleled environment for inspiring minds.

To learn more about the postdoctoral, graduate and outreach programs at Scripps, contact us by phone at 858.784.8469, email at [eduprgm@scripps.edu](mailto:eduprgm@scripps.edu) or online at: <http://education.scripps.edu>.

## Table 36

### **Tuskegee University**

Tuskegee Materials Science and Engineering Department  
100 Chappie James Center  
Tuskegee, AL 36088

**Contact(s): Felicia Jenkins, [fjenkins@mytu.tuskegee.edu](mailto:fjenkins@mytu.tuskegee.edu)**

Tuskegee University is an independent and state-related institution of higher education. Its programs serve a student body that is coeducational as well as racially, ethnically and religiously diverse. It is the only college or university campus in the nation to be designated a National Historic Site by the U.S. Congress. Materials Science and Engineering Department has graduated the largest number of African-American PhD students in USA.

The primary objective of this PhD program is to significantly increase the number of African Americans holding PhD degrees in Science and Engineering. Faculty and students of Materials Science and Engineering department carry out cutting edge research in processing, synthesizing, characterization and modeling of advanced materials that have applications ranging from Aerospace, defense, drug delivery, health care, marine, off-shore and pharmacy, among others.

TU faculty lead multi-university, multi-year, multi-million dollar, NSF funded programs like Alabama Experimental Program to Stimulate Competitive Research (EPSCoR), Center of Research Excellence in Science and Technology (CREST), and Math and Science Partnership (MSP). It has also received HBCU-Research Infrastructure in Science and Engineering (HBCU-RISE) grants since 2004. In addition MSE faculties have received funds from Army Research Laboratories, Army Research Office, Office of Naval Research, NASA, and industry.

## Table 10

### **University of Alabama at Birmingham (UAB)**

1825 University Blvd  
SHEL 121  
Birmingham, AL 35294-2182

**Contact(s): Randy Seay, [rseay@uab.edu](mailto:rseay@uab.edu)**

At the University of Alabama at Birmingham (UAB), we offer doctoral programs in 37 areas, including eight interdisciplinary themes that integrate more than 33 departments, 20 university research centers and the affiliated drug-discovery and biotechnology institutes in the state of Alabama. We are also an NIH-funded MD/PHD program (MSTP) that offers a unique opportunity to obtain a PhD not just in the eight interdisciplinary themes, but also in public health, health behavior, biostatistics, biomedical engineering, or nutrition sciences. UAB ranks among the top 25 institutions receiving federal research funding. With more than \$433 million dollars in funding, UAB is home to more than 100 research centers. UAB strives to nurture skills that transcend disciplinary boundaries, preparing graduate students to participate successfully in professional and academic arenas. With coordinated and interdisciplinary degree programs available, the UAB offers students an opportunity to tailor their educational experience to their own career objective.

# Exhibitor Descriptions

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**Table 13**

**University of California, San Diego**

9500 Gilman Drive MC 0003  
La Jolla, CA 92093-0003

**Contact(s): Elisa Maldonado, [emmaldonado@ucsd.edu](mailto:emmaldonado@ucsd.edu)**

The Graduate Division is the central resource for all matters related to graduate education at UC San Diego. Our team is there at every step in a graduate student's career, helping students navigate their path from admission to graduation and beyond. Working behind-the-scenes and in collaboration with faculty, staff and students, the Graduate Division guides today's scholars on their upward trajectory to becoming tomorrow's leaders.

**Table 40**

**University of Chicago**

5710 S. Woodlawn Avenue  
Room 005  
Chicago, IL 60637

**Contact(s): Lisa Abston-Leftridge, [lraabston@uchicago.edu](mailto:lraabston@uchicago.edu)  
Carlos Cardenas-Iniguez, [cardenas@uchicago.edu](mailto:cardenas@uchicago.edu)  
Victoria Okuneye, [victoriaokuneye@uchicago.edu](mailto:victoriaokuneye@uchicago.edu)**

The University of Chicago is one of the world's premier academic and research institutions. Today, UChicago is an intellectual destination that draws inspired scholars to our Hyde Park and international campuses, keeping UChicago at the nexus of ideas that challenge and change the world.

**Table 7**

**University of Chicago, Division of Biological Sciences**

924 E. 57th Street  
Suite 104  
Chicago, IL 60637

**Contact(s): Nancy Schwartz, [nbs0@uchicago.edu](mailto:nbs0@uchicago.edu)**

The University of Chicago is an institution that values the transformative power of ideas, and many of those ideas come directly from our graduate student body. Unlike many other institutions, our graduate students represent a driving force that underlies the cutting edge research we do. Graduate programs in the Biological Sciences Division (BSD) are organized in 4 broader umbrella groups called clusters: Biomedical Sciences, Darwinian Sciences, Molecular Biosciences and Neuroscience. The programs within a cluster have overlapping course work and share additional training activities. A few graduate programs (Biophysical Sciences; Interdisciplinary Scientist Training Program - MD/PhD; Medical Physics; Public Health Sciences) offer unique experimental approaches to a question and stand alone.

To learn more about graduate education at the University of Chicago BSD, please visit our website: [bdsgrad.uchicago.edu](http://bdsgrad.uchicago.edu)

**Table 3**

**University of Maryland, Baltimore County**

**UMBC Graduate School**

1000 Hilltop Circle  
Chemistry 110  
Baltimore, MD 21250

**Contact(s): Justine Johnson, [j.johnson@umbc.edu](mailto:j.johnson@umbc.edu)**

UMBC reflects the future of research universities. Young and dynamic, the university is small enough to provide personal attention, yet large enough to provide a rich and diverse experience. Collaboration isn't just a buzz word here – it's a way of life among our faculty and students who take full advantage of the wealth of opportunities and meaningful partnerships this region has to offer.

With 39 master's degree programs, 24 doctoral degree programs, and 23 graduate certificate programs, UMBC seeks to provide you with an enriched experience drawing upon leading scholars attracted to a campus that prides itself on diversity and multiculturalism. UMBC graduate students come from 45 states and over 100 countries, who go on to careers in such fields as information technology, university teaching and research, mental health delivery, arts, education, business, industry, government, and policy making.

**Table 48**

**University of Michigan**

500 S. State Street  
Room 2212 LSA Bldg.  
Ann Arbor, MI 48109-1382

**Contact(s): Bob Megginson, [meggin@umich.edu](mailto:meggin@umich.edu)**

The University of Michigan offers 100 graduate programs ranked in the Top 10 and over 1,000 faculty in the College of Literature, Science, and the Arts--experts in anthropology through zoology--teach courses that explore the world's cultural, social, and scientific big questions. Our faculty members produce some of the most notable research in their respective fields. Admitted graduate students are offered funding packages that cover at least 5 years of study, including tuition, stipend, and health insurance for students and their dependents. In addition, our facilities include one of the most extensive library systems in the world, seven museums, and research labs for the natural and physical sciences. Some of these include the Biological Station in northern Michigan and Camp Davis in Wyoming. A vibrant literary and performing arts tradition in the College enriches the minds and hearts of the campus community. All that a college experience should be--the intellectual challenges, the exposure

to the new, the growth of knowledge and of individuals--can be found here, in the College of Literature, Science, and the Arts at the University of Michigan.

## Table 14

### University of Michigan - College of Pharmacy

428 Church Street  
Ann Arbor, MI 48109-1065

**Contact(s):** Cherie Dotson, [crdotson@umich.edu](mailto:crdotson@umich.edu)  
Jennifer Schmidt, [cheried05@gmail.com](mailto:cheried05@gmail.com)  
Ronald Woodard, [rww@umich.edu](mailto:rww@umich.edu)

The University of Michigan - College of Pharmacy offers graduate (Ph.D.) degrees in Medicinal Chemistry and Pharmaceutical Sciences. Graduate students in Medicinal Chemistry are trained in research pertaining to drug discovery and drug design while those in Pharmaceutical Sciences are focused on the study of drug transport and drug delivery systems. Students with interests in obtaining clinical training with regard to the practice of pharmacy are encouraged to consider the Pharm.D. program. The University of Michigan - Pharm.D. program provides students with opportunities for patient contact and clinical experience throughout the four years of study. The educational training and exposure provided through the program prepares students for a broad range of career opportunities upon graduation. Summer undergraduate research opportunities are available through the Interdisciplinary REU Program (<https://pharmacy.umich.edu/re>).

For further information, regarding these programs please visit: <https://pharmacy.umich.edu/>.

## Table 16

### University of Missouri Graduate Life Sciences Programs

150C Bond Life Sciences Center  
1201 Rollins Street  
Columbia, MO 65211

**Contact(s):** Debbie Allen, [allendebr@missouri.edu](mailto:allendebr@missouri.edu)  
[gradlifesci@missouri.edu](mailto:gradlifesci@missouri.edu)

#### *Experience the Joy of Discovery and Innovation*

The joy of discovery has propelled the University of Missouri to one of the top-ranked Life Sciences research institutions in the 21st Century. Our PhD programs emphasize interdisciplinary collaboration and innovation. University of Missouri faculty from diverse disciplines come together to develop cures for human diseases, to improve our nation's food supply, to develop new sources of biofuels and to preserve and protect our environment. Our PhD students use cutting-edge technologies to solve problems. Our research core facilities

include state-of-the-art DNA sequencing, proteomics, nanotechnology, microscopy and whole-animal imaging technologies. We are committed to the success of our graduate students, with strong mentorship programs and career-directed resources. We offer a comprehensive support package including stipend, paid tuition, professional development resources, and travel funding. Columbia, Missouri is an excellent, diverse and affordable city with impressive amenities.

Learn More: <http://www.missouri.edu/research/>

## Table 49

### University of North Texas

1155 Union Circle, #305459  
Eagle Student Services Center, Room 354  
Denton, TX 76203

**Contact(s):** Dana Mordecai, [dana.mordecai@unt.edu](mailto:dana.mordecai@unt.edu)

Choose, belong, discover and achieve at the University of North Texas. With 97 bachelor's, 83 master's and 36 doctoral degree programs, the flagship of the UNT system in Denton boasts cutting-edge research across many disciplines. With our signature programs at the top of national rankings, UNT serves as a hub for creative activities, economic development and research with global impact. You can discover your future at UNT, as you work closely with renowned faculty to gain the knowledge, experience and connections needed to shape today's world and achieve your own personal success.

## Table 24

### University of Notre Dame Graduate School

502 Main Building  
Notre Dame, IN 46556

**Contact(s):** Nyrée McDonald, [nmcdonal@nd.edu](mailto:nmcdonal@nd.edu)

The University of Notre Dame is renowned worldwide for academic excellence, and gifted students from around the globe join us to be part of our vibrant intellectual community. As a graduate student at Notre Dame, you will benefit from generous financial support that allows you to focus on your degree objectives and from exposure to and participation in innovative, collaborative, and interdisciplinary pursuits. We believe that our voice is best heard through the success of those we train at the highest level to become the academic and professional leaders of tomorrow. To that end, we work in concert with a world-class faculty across a variety of disciplines to mentor and develop our students by engaging them in meaningful research and other professional activities.

Notre Dame is committed to fully funding all doctoral-degree seeking students and many masters-degree seeking students. If you would like more information, please feel free to contact the

# Exhibitor Descriptions

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director of graduate studies in your prospective department of interest. If you would like to browse our Website or apply online, visit us at <http://graduateschool.nd.edu>. For up-to-the minute information on graduate student life at Notre Dame, visit our Facebook page: <http://www.facebook.com/notredamegraduateschool>.

## **Table 32**

### **University of South Florida (USF)**

#### **College of Engineering**

4202 East Fowler Avenue, ENB 118  
Tampa, FL 33620

**Contact(s): Bernard Batson, [bbatson@usf.edu](mailto:bbatson@usf.edu)**

The University of South Florida (USF) is a high-impact, global research university dedicated to student success. USF is classified by the Carnegie Foundation for the Advancement of Teaching in the top tier of research universities. Signature STEM research areas include: Aging and Brain Repair, Neuro-degenerative Diseases, Bioengineering, Neuro-engineering, Cancer Biology, Computer Vision and Pattern Recognition, Microwave/RF Communications, Cybersecurity, Nano-computing, Robotics, Drug Discovery, Environmental Biotechnology, Water Resources and Sustainability, Renewal Energy Systems, Global Health, Marine Science, Geosciences, Nanotechnology and Advanced Materials, and Rehabilitative Engineering.

For over a decade, USF has been recognized as a national leader in minority education through the Alfred P. Sloan Foundation's University Center of Exemplary Mentoring (UCEM), the NSF Florida-Georgia Louis Stokes Alliance for Minority Participation Bridge to the Doctorate Activity, and the Florida Education Fund's McKnight Doctoral Fellowship Program. Our students and alumni have received competitive pre-doctoral, dissertation, and postdoctoral awards (NSF, NASA, Ford, UNCF Merck, Whitaker, Fulbright, NRC) and obtained positions in academia, national labs, government, and industry.

Please visit our exhibit to learn about our graduate research opportunities, graduate funding, and summer research programs.

## **Table 26**

### **University of Tennessee, Knoxville PEER**

1414 Cumberland Avenue  
M407 Walters Life Sciences Building  
Knoxville, TN 37996

**Contact(s): Erica Echols, [eechols1@utk.edu](mailto:eechols1@utk.edu)**

The Program for Excellence & Equity in Research (PEER) is an initiative to increase the number of exceptional

underrepresented students graduating with doctoral degrees in STEM disciplines at the University of Tennessee, Knoxville. PEER seeks to advance a doctoral student's competitiveness and interest in their chosen career field by offering professional development, ambitious research, and dynamic mentoring opportunities.

## **Table 15**

### **University of Texas Southwestern Medical Center**

5323 Harry Hines Blvd.  
Dallas, TX 75390-9004

**Contact(s): Nancy Street, [nancy.street@utsouthwestern.edu](mailto:nancy.street@utsouthwestern.edu)**

Please visit table 15 for complete information.

## **Table 42**

### **University of the Virgin Islands**

#### **Master of Marine and Environmental Science (MMES)**

2 John Brewers Bay  
St Thomas, VI 00802

**Contact(s): Renata Platenberg, [renata.platenberg@uvi.edu](mailto:renata.platenberg@uvi.edu)**

The Master of Marine and Environmental Science (MMES) degree provides students with the training and skills necessary for planning, conducting, and evaluating research in marine and environmental science. Additionally, students explore how to utilize research to manage natural resources, with a particular focus on the issues and challenges related to natural resource management in the Caribbean region. The program draws upon the expertise of faculty within several units of UVI, in particular the Center for Marine and Environmental Studies and the College of Science and Mathematics. Further, it is a bridge between academia and natural resource management sectors within the US Virgin Islands, the greater Caribbean, and beyond. The program structure allows students to become conversant in the language of both research and resource management, and then to focus on their area of particular interest. Graduates of the program are prepared for a wide array of careers in academic, government, non-profit, and private sectors. Scholarships as well as Research and Teaching Assistantships are available.

## **Table 39**

### **University of Wisconsin-Madison**

258 CAE  
1410 Engineering Drive  
Madison, WI 53706

**Contact(s): Kelly Burton, [kelly.burton@wisc.edu](mailto:kelly.burton@wisc.edu)  
Douglass Henderson, [denise.thomas@wisc.edu](mailto:denise.thomas@wisc.edu)**

The Graduate Engineering Research Scholars (GERS) program was created in 1999 to increase the number of under-represented minority (URM) students receiving graduate degrees (specifically PhDs) in engineering and enter the professoriate. While completing their degrees, the students in GERS create a community of scholars who meet twice a month for personal and professional development opportunities. Since its inception, the program has graduated 56 PhDs and 61 MS. Already, 14 of the 56 graduates are in faculty positions; an additional 5 are in post-doctoral positions. Of the 56 PhDs awarded 33 (57%) were to women.

## Table 31

### Vanderbilt University

Vanderbilt MD/PhD and Biomedical PhD Programs  
340 Light Hall  
1161 21st Avenue S.  
Nashville, TN 37232-0301

**Contact(s): Megan Williams, [megan.williams@vanderbilt.edu](mailto:megan.williams@vanderbilt.edu)**

Vanderbilt University, located in Nashville, TN, is a top 10 NIH funded research institution and a US News & World Report top 15 medical school. Representatives will be available to discuss our Medical Scientist Training Program (MSTP or MD/PhD Program), Interdisciplinary Graduate Program which is an umbrella PhD program in the Biomedical Sciences, and Medical School at Vanderbilt. Please stop by our booth to learn more about any of these programs and see how the top notch research, faculty, and students at Vanderbilt University would be a good fit for your graduate training!

## Table 4

### Worcester Polytechnic Institute (WPI)

100 Institute Road  
Worcester, MA 01609-2280

**Contact(s): Mary Spencer, [mspencer@wpi.edu](mailto:mspencer@wpi.edu)**

A leader in science, engineering, and business, Worcester Polytechnic Institute anticipated some of the latest trends in higher education by nearly two generations.

WPI's founding principle of balancing theory with practice underlies a project-based, experiential curriculum that prepares students to solve important problems through interdisciplinary study and applied research.

The Institute's long-standing partnerships with biotechnology, IT, and manufacturing concerns have enabled it to answer recent national initiatives that call for new professional graduate programs in science and engineering.

Through their collaborative work and creative approaches to problem-solving, faculty and students at WPI will continue to make breakthroughs that improve the quality of our lives.

## Table 47

### XSEDE

University of Virginia  
PO Box 400744  
351 McCormick Road  
Charlottesville, VA 22903

**Contact(s): Eduardo Socolovsky, [eas2cs@cms.mail.virginia.edu](mailto:eas2cs@cms.mail.virginia.edu)  
Dwayne John, [djohn@utk.edu](mailto:djohn@utk.edu)**

XSEDE is a virtual organization that provides cyberinfrastructure and technical expertise to researchers, engineers, and scholars to enable discoveries that change the world. Funded by the National Science Foundation, XSEDE supports a growing collection of advanced computing, high-end visualization, data analysis, and other resources and services.

Researchers use this infrastructure to create simulations and mine huge volumes of data. With XSEDE resources, researchers study diseases and improve how drugs can be delivered to combat them; probe the mysteries of black holes; model earthquakes to help reduce their risk to life and property; and learn more about human behavior by analyzing data from online role-playing games.

XSEDE student programs are preparing the next generation of researchers, scholars, educators, and practitioners in the use of data analysis and management, modeling, simulation, and visualization techniques. XSEDE supports students by providing internship opportunities through the XSEDE Scholars Program, hosting in-person and online training events, and encouraging student paper presentations at the annual XSEDE conference. XSEDE also promotes internship, fellowship, and training offered by XSEDE partners and affiliates to connect students with a broad array of career development opportunities.

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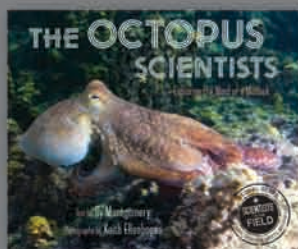
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Simon & Schuster, 2015.

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