Final Program

Annual Biomedical Research Conference for Minority Students

ABRCMS09

Phoenix, Arizona

Charting the Path to Careers in the Biomedical and Behavioral Sciences

Managed by
American Society for Microbiology

Sponsored by
Division of Minority Opportunities in Research
National Institute of General Medical Sciences

November 4-7, 2009 • Phoenix, Arizona

Keynote, Plenary, and Concurrent Scientific Speakers

Wednesday, November 4, 7:30 – 8:00 p.m.

OPENING KEYNOTE ADDRESS

Taking the Next Step

Speakers

Crystal Watkins, M.D., Ph.D.
Johns Hopkins University, Baltimore, MD

Erika Camacho, Ph.D.
Arizona State University, Glendale, AZ

Eihab Jaber, Ph.D.
Worcester State College, Worcester, MA

Thursday, November 5, 1:00 – 2:00 p.m.

PLENARY SCIENTIFIC SESSION

Robots with Emotion
Cynthia Breazeal, Ph.D.
Massachusetts Institute of Technology, Cambridge, MA

Friday, November 6, 8:15 – 9:15 a.m.

PLENARY SCIENTIFIC SESSION

Teaching Strategies: Why Students Don't Learn What We Think We Teach
Robert Duke, Ph.D.
University of Texas at Austin, Austin, TX

Friday, November 6, 1:00 – 2:00 p.m.

LUNCHEON KEYNOTE ADDRESS

Find Where the Wind Goes
Mae C. Jemison, M.D.
First Woman of Color to Go into Space
Jemison Group, Inc., and Bio Sentient Corp.

Saturday, November 7, 7:15 – 8:00 a.m.

PLENARY SCIENTIFIC SESSION

What Everyone Should Know About H1N1 Influenza
Joan Nichols, Ph.D.
University of Texas Medical Branch at Galveston
Galveston, TX

Saturday, November 7, 1:15 – 2:15 p.m.

LUNCHEON KEYNOTE ADDRESS

From Silent Spring to Silent Night: What Have We Learned
Tyrone Hayes, Ph.D.
University of California, Berkeley, CA

"This is a wonderful conference that gives young scientists a great opportunity to present their work and network. It is well planned with an understanding about what will help young people and is extremely well-executed. You should be very proud of the work you all have done."

2007 Faculty Participant

Wednesday, November 4

7:00 – 8:00 p.m. **CONFERENCE OVERVIEW, OPENING REMARKS, AND KEYNOTE ADDRESS** — Location: North Building, Ballroom 120 A-D

Conference Overview
John Fitzgerald Gates, Ph.D., *Harvard College, Cambridge, MA*

Opening Remarks
Clifford W. Houston, Ph.D., *University of Texas Medical Center at Galveston, Galveston, TX*

Conference Welcome
Clifton Poodry, Ph.D., *Minority Opportunities in Research Division, NIGMS, National Institutes of Health, Bethesda, MD*

Keynote Address: Taking the Next Step
Crystal Watkins, M.D., Ph.D., *Johns Hopkins University, Baltimore, MD*
Erika Camacho, Ph.D., *Arizona State University, Glendale, AZ*
Eihab Jaber, Ph.D., *Worcester State College, Worcester, MA*

Introduction
John Fitzgerald Gates, Ph.D., *Harvard College, Cambridge, MA*

8:15 – 9:15 p.m. **NETWORKING WITH DISCIPLINARY SOCIETIES**

This informal forum, led by disciplinary society members, provides an opportunity for the societies to interact one-on-one with students and discuss student activities and programs within their societies or organizations. Senior scientists will discuss career pathways and work and personal life balance, and program directors will be in attendance to mentor students. The session has been organized in the following groups.

NOTE: Participants interested in career pathways in the molecular biological sciences may attend session 1, 2, or 3. Molecular biological sciences cross cuts those three scientific groups.

Networking with Disciplinary Societies 1 — Location: North Building, Room 121 A-C
- Cell Biological Sciences
- Developmental Biological Sciences

Networking with Disciplinary Societies 2 — Location: North Building, Room 122 A-B
- Biochemical Sciences
- Chemical Sciences

Networking with Disciplinary Societies 3 — Location: North Building, Room 126 A-C
- Microbiological Sciences

Networking with Disciplinary Societies 4 — Location: North Building, Room 125 A-B
- Neuroscience
- Physiological Sciences

Networking with Disciplinary Societies 5 — Location: North Building, Room 124 A
- Social and Behavioral Sciences and Public Health

Networking with Disciplinary Societies 6 — Location: North Building, Room 129 B
- Physical Sciences and Mathematics

9:15 – 9:45 p.m. **ABRCMS and FASEB Travel Awardees Orientation** — Location: North Building, Room 131 A-C

9:45 – 10:45 p.m. **PEER MENTORING ORIENTATION** — Location: North Building, Room 131 A-C

(Mandatory for ABRCMS peer mentors and mentees)

FASEB and ABRCMS have developed a mentor/mentee program to provide first-time ABRCMS undergraduate and community college student attendees with an opportunity to be mentored by postdoctoral scientists and early-career faculty on successfully navigating a national conference. **Open to FASEB and ABRCMS Travel Awardees only.**

Continued on next page

Meet and Greet Speakers

Opportunity to meet one-on-one with speakers informally to gain in depth knowledge of their research and career pathway to success.

(See program book for speaker biographies)

Thursday, November 5, 2:30 p.m. – 4:30 p.m.

Isiah Warner, Ph.D.
Louisiana State University

Sandra Murray, Ph.D.
University of Pittsburgh

Jose Manautou, Ph.D.
University of Connecticut

Michael Anderson, Ph.D.
U.S Patent Office

Gilbert John, Ph.D.
Oklahoma State University

Javier Rojo, Ph.D.
Rice University

Michael Summers, Ph.D.
UMBC

John Carpten, Ph.D
TGen

Beverly Lyn-Cook, Ph.D.
FDA-NCTR

Beth Boyd, Ph.D.
University of South Dakota

Maria Elena Martinez, M.P.H, PhD
University of Arizona Cancer Center

Cynthia Breazeal, Ph.D.
Massachusetts Institute of Technology

Howard Adams, Ph.D
H.G. Adams and Associates (Visit at FASEB booth 409)

Friday, November 6, 11: 00 a.m. – Noon & 4:00 – 5:00p.m.

Robert Duke, Ph.D
University of Texas, Austin

Milton Brown, MD, Ph.D.
Georgetown University

Griffin Rodgers, M.D., M.A.C.P.
NIDDK, NIH

Crystal Watkins, M.D, Ph.D.
Johns Hopkins University

Erika Camacho, Ph.D.
Arizona State University

Eihab Jaber, Ph.D.
Worcester State College

Sandra Murray, Ph.D.
University of Pittsburgh

Jose Manautou, Ph.D.
University of Connecticut

Michael Anderson, Ph.D.
U.S Patent Office

Gilbert John, Ph.D.
Oklahoma State University

Javier Rojo, Ph.D.
Rice University

Michael Summers, Ph.D.
UMBC

John Carpten, Ph.D
TGen

Beverly Lyn-Cook, Ph.D.
FDA-NCTR

Beth Boyd, Ph.D.
University of South Dakota

Howard Adams, Ph.D
H.G. Adams and Associates (Visit at FASEB booth 409)

and Advance Program seminars in the area of faculty development. Her experience has been in higher education in public, land grant, private, and research universities and corporate education, both in the United States and abroad. Her engagements include Duke University, Penn State University, Stanford University, and the University of Michigan. Butterfield holds a doctorate in education administration and is an alumna of the University of Pennsylvania Wharton School of Business Advanced Management Program. She is the author of three books and a past president of the College and University Professional Association for Human Resources.

Erika Camacho, Ph.D.

Erika Camacho grew up in East Los Angeles and learned mathematics from the renowned professor Jaime Escalante. She received her doctorate in applied mathematics from Cornell University. Camacho is a Mellon Mays Fellow, a Sloan Fellow, and a Ford Foundation Fellow. She has held positions at Los Alamos National Laboratory, Loyola Marymount University, and Arizona State University. Camacho is cofounder of the Applied Mathematical Sciences Summer Institute, which recruits undergraduate women, underrepresented minorities, and others who might not otherwise have opportunities in science. Her research focuses on the interface of mathematical applications to biology and sociology.

John Carpten, Ph.D.

John Carpten is senior investigator and director of the Division of Integrated Cancer Genomics, Translational Genomics Research Institute (Phoenix, AZ), and an associate member of the Arizona Cancer Center, University of Arizona (Tucson, AZ). He served as an investigator of the Cancer Genetics Branch, National Human Genome Research Institute (NHGRI), National Institutes of Health, from 2000 to 2003 and as adjunct faculty, Department of Medical Microbiology, Howard University College of Medicine, in 1998 and 1999. Carpten is a recipient of the Trailblazer Award from *Science Spectrum* magazine (2006) and the Faculty Mentor Award from NHGRI (2002). He has been a member of the External Advisory Board, Childhood Cancer TARGET Initiative, National Cancer Institute, since 2007.

Robert P. Dottin, PhD.

Robert P. Dottin is the director of the Center for Study of Gene Structure and Function at Hunter College of CUNY. The center is a research consortium of 52 biologist, psychologist, chemist, and physicist research scientists. This interdisciplinary, racially diverse, collaborative group has worked on AIDS, cancer, and neurological diseases that disproportionately afflict minority populations. The Gene Center also hosts a highly successful summer program for undergraduate researchers. Dottin is also principal investigator of the Hunter component of a Clinical Translational Science Center that includes Weill Cornell Medical College, Memorial Sloan-Kettering Cancer Center, and the Hospital for Special Surgery. The component seeks to apply discoveries in basic research to medical problems. This "translational research" has become a new paradigm for clinical science in the 21st century. A molecular geneticist, he has published extensively on the mechanisms used to control gene expression by extracellular molecules and collaborated widely with investigators at the Pasteur Institute and Oxford University. Dottin is a native of Trinidad and Tobago and holds bachelor's, master's, and doctoral degrees from the University of Toronto. Even as a postdoctoral fellow at Massachusetts Institute of Technology and a professor at Johns Hopkins University, he has been a strong activist for increasing and improving the research output of minorities in science. Dottin has spoken extensively on this topic throughout the nation. He is also the developer of justgarciahill.org, a science website for the professional development of underrepresented minorities in science.

Shawn R. Drew, Ph.D.

Shawn R. Drew joined the staff of the National Institute of General Medical Sciences (NIGMS) in September 2003 as a program director in the Minority Access to Research Careers Branch. Prior to her NIGMS appointment, Drew served as director of the National Institutes of Health Academy and was an adjunct professor of biology at the University of Maryland University College and Prince Georges Community College. She earned a bachelor's degree in natural science (with a concentration in chemistry) in 1991 from Spelman College and went on to earn a doctorate in biology in 1998 from Howard University, where she participated in NIGMS's Minority Biomedical Research Support program as a research associate. Her postdoctoral research was conducted in the Molecular and Clinical Hematology Branch of the National Institute of Diabetes and Digestive and Kidney Diseases. Drew is a member of several professional societies, including the American Society of Hematology and the Association for Women in Science.

Robert Duke, Ph.D.

Robert Duke is the Marlene and Morton Meyerson Centennial Professor in Music and Human Learning, University Distinguished Teaching Professor, Elizabeth Shatto Massey Distinguished Fellow in Teacher Education, and director of the Center for Music Learning at the University of Texas, Austin (UTA). Duke founded the National Forum on Research in Motor Learning and Music, a research collaborative that studies motor skill development and procedural memory consolidation. A former studio musician and public school music teacher, he has worked closely with children at risk, both in public schools and through the juvenile court system, and he directs an active research program in motor skills learning and procedural memory at UTA. Duke has served on the editorial boards of the *Journal of Research in Music Education*, the *Bulletin of the Council for Research in Music Education*, *Psychomusicology*, and other publications, and he has directed national research efforts under the sponsorship of such organizations as the National Piano Foundation and the International Suzuki Institute. Duke lectures frequently on the topics of human learning, systematic observation and evaluation, and behavior management. He is the author of Scribe 4 behavioral analysis software, and his most recent books are *Intelligent Music Teaching: Essays on the Core Principles of Effective Instruction* and *The Habits of Musicianship: a Radical Approach to Beginning Band* (coauthored with Jim Byo of Louisiana State University and distributed freely online through the Center for Music Learning).