

Final Program

ABRCMS 10th Charlotte,
North Carolina, 2010
Anniversary



Annual Biomedical Research Conference for Minority Students

**The Future of Science:
Diverse People, Diverse Needs**

November 10-13, 2010 • Charlotte, North Carolina

Managed by



AMERICAN
SOCIETY FOR
MICROBIOLOGY

Sponsored by



NIGMS

National Institute of General Medical Sciences

What's New in 2010

Myers-Briggs Workshops

Working in collaboration with the National Institutes of Health Office of Intramural Training, ABRCMS will sponsor a Myers-Briggs Workshop on **Wednesday, November 10, 3:00 p.m. - 6:00 p.m.** See page 18 for details.

Keystone Travel Award for Graduate Students & Postdocs

Keystone Symposia will grant two travel awards to eligible graduate students and postdocs attending the 2010 ABRCMS. See page 14 for details.

ABRCMS Twitter and Facebook

Meet us online! Use the # ABRCMS Twitter and Facebook pages to connect with people and friends and meet new friends along the way. Post questions about the conference. Share views and videos. Stay connected.

Online Abstract Database for Exhibitors

This year, exhibitors can access student abstracts before the conference! The ABRCMS online abstract database provides information about student scientific disciplines that exhibitors can use to tailor recruitment efforts accordingly. Access to the database begins October 1. Visit www.abrcms.org/page04a.html for up-to-date information.

ABRCMS/FASEB MARC "Passport to Success" Networking Challenge:

FASEB MARC and ABRCMS travel award winners will be participating in a networking challenge designed to help develop the students' communication and networking skills during the meeting. The students will be interacting with the "Passport to Success" participating scientific societies and universities by visiting the designated societies'/universities' exhibit booths. This pilot program is only open to FASEB MARC and ABRCMS travel award winners.

10th Anniversary Celebrations

In addition to other special events to be held throughout the conference, on Thursday, November 11, ABRCMS will mark its 10th anniversary with a special dinner and an evening full of celebratory activities.



Men's polo shirt

To commemorate the special occasion, ABRCMS anniversary polo shirts will be available for purchase. Attendees are encouraged to wear their polo shirts on Thursday, November 11.



Women's v-neck polo shirt

Important Reminders

Preconference Workshops

Several workshops will be held on **Wednesday, November 10, 4:30 p.m. - 5:30 p.m.** See the program for details. Plan your travel accordingly so that you can attend these informative workshops.

Conference Orientation

All orientation sessions will be held on **Thursday, November 11, 8:15 - 9:00 a.m.** See page 20 for details.

Networking with Disciplinary Societies

Networking sessions with disciplinary societies will be held on **Wednesday, November 10, 8:15 p.m. - 9:15 p.m.** These informal sessions are led by professional society members and provide a forum for small group, student-centered discussions that focus on the societies' student activities and career pathways. Exhibitors and faculty representing the professional societies are strongly encouraged to attend.

Early Admittance into Exhibit Hall for Exhibitors

Exhibitors with exhibitor badges will be permitted in the exhibit hall 30 minutes prior to the opening of the exhibition.

Exhibit Program Recruitment Teams

One of ABRCMS goals is to address the needs of the diverse student population who attend the conference. To this end, ABRCMS strives to enhance its exhibits program and recommends a team approach for exhibitors. A recruitment team ideally includes at least three individuals, with each assuming a unique role and responsibility:

- (i) **Graduate Dean/Admissions Director** – Deans and admissions directors provide general information about the institution and pertinent deadlines and program requirements for summer programs and the graduate school application process.
- (ii) **Graduate Students** – Graduate students share candid information about personal experiences, particularly courses, advisers, mentor selection, campus environment, social life, and networking opportunities.
- (iii) **Research Faculty and/or Postdocs** – Faculty members and/or postdocs share information about research projects, career pathways, professional development opportunities, and general discipline information.

Travel Awards: Funding for Students

Two types of travel awards are being offered to undergraduate and postbaccalaureate students this year; the awards are from ABRCMS and the FASEB MARC Program. Visit <http://www.abrcms.org/page06a.html> for more information.

Onsite Registration Check-in Feature

SCAN & GO self registration will be offered at the 2010 ABRCMS. Bring a copy of your registration confirmation letter to expedite your registration process.

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“ *This was my first scientific conference, and it was AMAZING!!! I cannot wait for the one to come in Charlotte next year!!!!* ”
2009 UNDERGRADUATE STUDENT




“ *What a GREAT opportunity for undergrads. I have been so impressed with the quality of the program and the EXCELLENT planning, organization and running of the conference by the staff - AMAZING!* ”
2009 FACULTY PARTICIPANT

ABRCMS 10TH ANNIVERSARY TIMELINE

In 10 years, the Annual Biomedical Research Conference for Minority Students (ABRCMS) has become the premier venue for students in the biomedical or behavioral sciences, including mathematics, to network with and learn from the best thinkers and practitioners in the sciences.

ABRCMS 10th Anniversary
Charlotte, North Carolina, 2010



Annual Biomedical Research Conference for Minority Students

Program at a Glance

Wednesday, November 10, 2010

- 12:00 – 8:00 p.m. **Registration Open**
Location: Concourse C Foyer
- 12:00 – 4:00 p.m. **EXPLORE CHARLOTTE! EXPLORE CHARLOTTE!**
- 2:00 – 8:00 p.m. **Exhibit Set-up**
Location: Exhibit Hall C
- 3:00 – 6:00 p.m. **Myers-Briggs Workshop: Using the Myers-Briggs Type Indicator for Self-Awareness and Group Learning**
Location: Ballroom C
- 4:30 – 5:30 p.m. **PRECONFERENCE PROFESSIONAL DEVELOPMENT SESSIONS**
- Session 1**
Presentation Techniques: How to Make Effective Poster and Oral Presentations
Location: Room 213D
- Session 2**
Managing Stress, Time, and Work/Life Balance as a Scientist
Location: Room 213B/213C
- 6:00 – 6:45 p.m. **Dinner**
Location: Crown Ballroom
- 6:45 – 8:00 p.m. **Conference Overview and 10th Anniversary Kickoff**
Location: Crown Ballroom
- 8:15 – 9:15 p.m. **Networking with Disciplinary Society Representatives**
See page 19
- 9:30 – 10:00 p.m. **ABRCMS Student Travel Awardees Orientation**
Location: Room 213D
- 9:30 – 10:30 p.m. **PREP Director Meeting**
Location: Westin Hotel, Sharon Room
- 9:30 – 10:30 p.m. **GRADUATE STUDENT/POSTDOCTORAL SCIENTIST ORIENTATION AND MIXER**
Location: Westin Hotel, Ember Grille

Thursday, November 11, 2010

- 7:00 a.m. – 5:00 p.m. **Registration Open**
Location: Concourse C Foyer
- 7:00 – 8:00 a.m. **Networking Breakfast**
Location: Crown Ballroom
- 8:00 a.m. – 12:00 p.m. **Exhibit Set-up**
Location: Exhibit Hall C
- 8:15 – 9:00 a.m. **CONFERENCE ORIENTATION**
- Orientation for Undergraduate Students and Postbaccalaureates**
Location: Ballroom A/D
- Orientation for Graduate Students and Postdoctoral Scientists**
Location: Ballroom C
- Orientation for Exhibitors, Faculty, and Program Directors**
Location: Room 203A/203B
- Orientation for Judges (All Ten Disciplines)**
See page 12
- 9:15 – 10:15 a.m. **PLENARY SCIENTIFIC SESSION**
- In Search of King Solomon's Ring: Studies on the Cognitive and Communicative Abilities of Grey Parrots**
Irene Pepperberg, Ph.D.
Research Associate and Lecturer, Harvard University, Cambridge, MA
Adjunct Associate Professor, Brandeis University, Waltham, MA
Location: Ballroom A/D

- 10:30 a.m. – 12:00 p.m. **CONCURRENT PROFESSIONAL DEVELOPMENT SESSIONS**
See page 21
- 10:30 a.m. – 12:00 p.m. **DOCTORAL GRADUATE STUDENT POSTER SESSION 1 AND POSTDOCTORAL FELLOWSHIP RECRUITMENT FAIR**
Location: Ballroom B
- 12:15 – 1:00 p.m. **Networking Lunch**
Location: Crown Ballroom (overflow in Ballroom C)
- 1:00 – 2:00 p.m. **PLENARY SCIENTIFIC SESSION**
- The Dark Side of the Universe: Black Holes, Dark Matter, Dark Energy**
Neil deGrasse Tyson, Ph.D.
Director, Hayden Planetarium
Location: Crown Ballroom (overflow in Ballroom C)
- 2:00 – 6:00 p.m. **Exhibits Open**
Location: Exhibit Hall
- 2:15 – 3:30 p.m. **POSTER SESSION 1 (A)**
Location: Exhibit Hall C
- 2:30 – 3:30 p.m. **Career Coaching Corner/Meet and Greet Speakers**
- 3:45 – 5:00 p.m. **POSTER SESSION 2 (B)**
Location: Exhibit Hall C
- 5:15 – 6:15 p.m. **ORAL PRESENTATION SESSIONS 1 - 10**
(All Disciplines)
See pages 22-25
- 6:30 – 8:30 p.m. **HAPPY 10th ANNIVERSARY, ABRCMS! AWARDS DINNER & CELEBRATION**
Location: Crown Ballroom (overflow in Ballroom C)
- 9:00 – 11:00 p.m. **Anniversary Festivities at Offsite Location**

Friday, November 12, 2010

- 7:00 a.m. – 5:00 p.m. **Registration Open**
Location: Concourse C Foyer
- 7:00 – 8:00 a.m. **Networking Breakfast**
Location: Crown Ballroom
- 8:15 – 9:15 a.m. **CONCURRENT SCIENTIFIC SESSIONS**
(Nine sessions available)
- A Study of Thymic Nurse Cell Function during T-Cell Development**
(Sponsored by the American Society for Cell Biology)
Jerry Charles Guyden, Ph.D.
Professor of Biology; Director, Research Centers in Minority Institutions Program, College University of New York, CUNY, New York, NY
Location: 217A
- Toxicity: Key Consideration for Drug Discovery and Development**
(Sponsored by the Society of Toxicology)
Myrtle A. Davis, D.V.M., Ph.D.
Chief, Toxicology and Pharmacology Branch, Developmental Therapeutics Program Division of Cancer Treatment and Diagnosis, National Cancer Institute, National Institutes of Health, Bethesda, MD
Location: Room 213D
- HIV-Related Pulmonary Arterial Hypertension: Lessons from Non-Human Primate Models**
(Sponsored by the American Society for Microbiology)
Sonia C. Flores, Ph.D.
Professor of Medicine and Microbiology, University of Colorado, Denver, Denver, CO
Location: 217D
- The Role of Doctor-Patient Relationships in Overcoming Healthcare Disparities**
Lisa A. Cooper, M.D., M.P.H., F.A.C.P.
Professor of Medicine, Division of General Internal

Medicine; Welch Center for Prevention, Epidemiology, and Clinical Research; The Johns Hopkins University School of Medicine, Baltimore, MD
Location: 217B/217C

Zirconia and Hafnia Materials in Bioanalysis

Luis A. Colón, Ph.D.

Professor and Chair, Department of Chemistry, University at Buffalo, Buffalo, NY
Location: 213B/213C

Biological Sensors of Oxygen

Marie-Alda Gilles-Gonzalez, Ph.D.

Associate Professor of Biochemistry, UT Southwestern Medical Center, Dallas, TX
Location: 213A

Mathematical Epidemiology with Applications: The Case of Influenza in Mexico

Carlos Castillo-Chavez, Ph.D.

Regents Professor, Joaquin Bustoz, Jr., Professor of Math Biology; director, Mathematical and Computational Modeling Sciences Center; director, Graduate Program in Applied Mathematics in the Life; Arizona State University, Tempe, AZ
Location: Room 209/210

Food for Thought: Connecting Genetic Diversity and Epigenetics to Improved Nutrition and Cancer Prevention

(Sponsored by the American Society of Plant Biologists)

Eleanor Wurtzel, Ph.D.

Professor, Lehman College of CUNY, Bronx, NY

Raymond Rodriguez, Ph.D.

Professor, Molecular and Cellular Biology, University of California, Davis, CA
Location: Room 218/219

9:30 – 10:30 a.m. PLENARY SCIENTIFIC SESSION

Imaging the Glycome

Carolyn Bertozzi, Ph.D.

Molecular Foundry, Lawrence Berkeley National Laboratory, and University of California, Berkeley, Berkeley, CA
Location: Ballroom A/D

10:30 a.m. – 12:00 p.m. Exhibits Open
Location: Exhibit Hall

10:45 a.m. – 12:00 p.m. POSTER SESSION 3 (C)
Location: Exhibit Hall C

11:00 – 12:00 p.m. Career Coaching Corner Open/Meet and Greet Speakers
Location: Exhibit Hall C

12:15 – 1:00 p.m. Networking Lunch
Location: Crown Ballroom (overflow in Ballroom C)

1:00 – 2:00 p.m. LUNCHEON KEYNOTE ADDRESS

Exceptional Opportunities for Biomedical Research

Francis Collins, M.D., Ph.D.

Director, National Institutes of Health, Bethesda, MD
Location: Crown Ballroom (overflow in Ballroom C)

2:15 – 3:30 p.m. DOCTORAL GRADUATE STUDENT POSTER SESSION 2 AND POSTDOCTORAL FELLOWSHIP RECRUITMENT FAIR
Location: Ballroom B

2:15 – 3:30 p.m. CONCURRENT PROFESSIONAL DEVELOPMENT SESSIONS
See page 28

3:15 – 6:30 p.m. Exhibits Open
Location: Exhibit Hall C

3:45 – 5:00 p.m. POSTER SESSION 4 (D)
Location: Exhibit Hall C

5:15 – 6:30 p.m. POSTER SESSION 5 (E)
Location: Exhibit Hall C

6:45 – 8:00 p.m. PROFESSIONAL DEVELOPMENT SESSIONS
See page 29

7:30 – 9:00 p.m. RECEPTION FOR EXHIBITORS, SPEAKERS, PROGRAM DIRECTORS, AND JUDGES
(This event is NOT open to undergraduates, postbaccalaureates, graduate students, or postdoctoral scientists)
Location: Hilton Hotel Grand Ballroom

7:45 p.m. FREE TIME! FREE TIME!

9:00 – 10:15 p.m. MARC/MBRS/RISE/SCORE Program Director Meeting
Location: Hilton Hotel - North Carolina Room

9:30 – 10:15 p.m. BRIDGES Program Director Meeting
Location: Hilton Hotel - South Carolina Room

Saturday, November 13, 2010

7:00 a.m. – 12:00 p.m. Registration Open
Location: Concourse C Foyer

7:00 – 8:00 a.m. Networking Breakfast
Location: Crown Ballroom

7:30 – 8:00 a.m. Open Forum for Feedback
Location: Crown Ballroom

8:15 – 9:15 a.m. Exhibitor Feedback Session
Location: Main Exhibit Hall C

8:15 – 9:15 a.m. ORAL PRESENTATION SESSIONS 11-20 (All Disciplines)
See page 31

9:15 a.m. – 12:00 p.m. Exhibits Open
Location: Exhibit Hall C

9:30 – 10:45 a.m. POSTER SESSION 6 (F)
Location: Exhibit Hall C

10:45 a.m. – 12:00 p.m. POSTER SESSION 7 (G)
Location: Exhibit Hall C

12:00 – 4:00 p.m. Exhibit Takedown
Location: Exhibit Hall C

12:15 – 1:00 p.m. Networking Lunch
Location: Crown Ballroom (overflow in Ballroom C)

1:00 – 2:00 p.m. Luncheon Keynote Address
An Afternoon with Maya Angelou
Maya Angelou, Numerous Honorary Degrees Educator, Poet, Author, and Entertainer
Location: Crown Ballroom (overflow in Ballroom C)

2:30 – 3:45 p.m. CONCURRENT PROFESSIONAL DEVELOPMENT SESSIONS
See page 34

4:00 – 5:30 p.m. CONCURRENT PROFESSIONAL DEVELOPMENT SESSIONS
See page 35

5:30 – 6:30 p.m. PROFESSIONAL DEVELOPMENT SESSION
See pages 35

6:30 – 7:30 p.m. FREE TIME! FREE TIME!

7:30 – 9:30 p.m. BANQUET, CONFERENCE WRAP-UP, AND STUDENT PRESENTATION AWARDS CEREMONY
Location: Crown Ballroom

9:30 – 10:00 p.m. Photo Session for ABRCMS Presentation Award Winners
Location: Room 213A/213B/213C

9:30 p.m. – 1:00 a.m. Dance and Social (All Are Invited)
Location: Westin Hotel, Grand Ballroom

Greetings From The Mayor



Greetings!

As Mayor, and on behalf of the City of Charlotte, I extend warmest greetings to all those attending the 2010 Annual Biomedical Research Conference for Minority Students (ABRCMS). We are thrilled to be your hosts as you mark the 10th anniversary of the conference on November 10-13.

During its history, ABRCMS has provided the leadership to substantially address the needs of underrepresented minority students who participate in the biomedical research enterprise of our nation. I commend ABRCMS for its commitment to supporting the “Diverse People, Diverse Needs” of the biomedical and behavioral sciences.

While you are in the Queen City, I invite you to explore the wonder, beauty and people who make this a great city. We have many amenities, including historic sites, cultural museums, delicious dining, and shops that are distinctly Charlotte.

Again we are pleased to have you join us in Charlotte, and we welcome the opportunity to share our southern hospitality with you. Best wishes for an enjoyable and memorable conference.

Sincerely,

A handwritten signature in black ink, appearing to read 'Anthony R. Foxx', written in a cursive style.

Anthony R. Foxx

Mayor

Office of the Mayor

600 East Fourth Street Charlotte, NC 28202-2853 704/336-2241



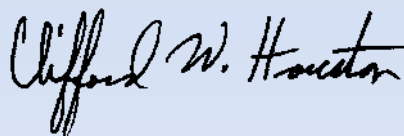
Welcome to Charlotte, NC, and the 2010 Annual Biomedical Research Conference for Minority Students (ABRCMS). This is a landmark event, as we are celebrating the 10th anniversary of ABRCMS and honoring the contributions that many individuals have made to the advancement of underrepresented minority students in the sciences. Whether you are new to the conference or an alumnus, you will see firsthand the power and breadth of the ABRCMS community. You'll have the opportunity to meet renowned speakers, industry experts, faculty, and administrators; network with peers; learn about recent advances in the biomedical and behavioral sciences; and participate in discussions about some of the most important issues facing minority students today.

This year's conference theme is the "Future of Science: Diverse People, Diverse Needs," reflecting the full spectrum of ABRCMS participants from a diversity of locations, institutions, and backgrounds. We will have numerous professional development workshops, student oral and poster presentations, opportunities to receive mentoring, occasions to explore graduate school and summer research options, and scientific sessions filled with cutting-edge research. In addition, several special anniversary activities have been planned, and I am especially delighted to have National Institutes of Health director Dr. Francis S. Collins and National Institute of General Medical Sciences director Dr. Jeremy M. Berg with us to participate in the celebration.

ABRCMS could not happen without the help of many dedicated people and generous sponsors. I thank the ABRCMS Steering Committee members, ASM staff, program directors, exhibitors, and volunteer judges for all of their hard work in preparation for and during the conference. I also thank all of our conference sponsors, especially the Minority Opportunities in Research Division of the National Institute of General Medical Sciences at the National Institutes of Health, whose contributions have made this conference possible.

It's your conference. I am confident that you will find this year's event a rewarding experience, and I thank you for being part of the ABRCMS community and for helping to make the conference what it is today.

Enjoy your time at ABRCMS!

A handwritten signature in black ink that reads "Clifford W. Houston". The signature is written in a cursive, flowing style.

Clifford W. Houston, Ph.D.

Associate Vice President for Educational Outreach

The Herman Barnett Distinguished Professorship in Microbiology and Immunology

The University of Texas Medical Branch at Galveston

Chairperson, ABRCMS Steering Committee

Past President, ASM

Greetings

Dear Students, Colleagues and Friends,

On behalf of the National Institute of General Medical Sciences (NIGMS), we would like to welcome you to the 10th Annual Biomedical Research Conference for Minority Students.

The theme for this year's conference, "The Future of Science: Diverse People, Diverse Needs," echoes the NIGMS goal of preparing a scientific workforce that is representative of the diverse U.S. population.

The program for this year's meeting is outstanding and features talks by Dr. Francis Collins, Dr. Juliet Garcia and Dr. Maya Angelou. We encourage you to take advantage of the many scientific presentations, professional development workshops and networking sessions.

For our students, it is our hope that ABRCMS helps to prepare you for the next stages of your research careers. We look to you, the future of science, to help advance the biomedical research enterprise.

We're delighted that you could celebrate this 10th anniversary milestone with us and look forward to an exciting, inspirational and productive meeting in Charlotte.

Sincerely,



Jeremy M. Berg, Ph.D.
Director, National Institute of General Medical Sciences
National Institutes of Health



Clifton A. Poodry, Ph.D.
Director, Division of Minority Opportunities in Research
National Institute of General Medical Sciences, National Institutes of Health

Steering Committee Members

- **Sherrice Allen, Ph.D.**
Fayetteville State University, Fayetteville, NC
- **Cherrie B. Boyer, Ph.D.**
University of California, San Francisco, CA
- **Robert Full, Ph.D.**
University of California, Berkeley, CA
- **Marie-Alda Gilles-Gonzalez, Ph.D.**
UT Southwestern Medical Center at Dallas, Dallas, TX
- **Clifford W. Houston, Ph.D.**
ABRCMS Chairperson and ASM Past President
University of Texas Medical Branch, Galveston, TX
- **Trachette Jackson, Ph.D.**
University of Michigan, Ann Arbor, MI
- **Jerainne Johnson, Ph.D.**
*National Institutes of Standards & Technology,
Gaithersburg, MD*
- **Mary Sanchez Lanier, Ph.D.**
Washington State University, Pullman, WA
- **Elba Serrano, Ph.D.**
New Mexico State University, Las Cruces, NM

National Institute of General Medical Sciences Staff and Advisors

- **Clifton A. Poodry, Ph.D.**
Director, MORE Division
- **Adolphus P. Toliver, Ph.D.**
Chief, MARC Branch, MORE Division
- **Hinda Zlotnik, Ph.D.**
Chief, MBRS Branch, MORE Division

American Society for Microbiology (ASM) Staff

- **Amy L. Chang**
Director, Education Department
- **Irene V. Hulede**
Manager, Student Programs
- **Ronica Rodela**
Coordinator, Student Conferences
- **Shana McBean**
Program Assistant, ABRCMS
- **Tiffani Fonseca**
Coordinator, Student Fellowships
- **Leslie Robinson**
Communications Specialist, Education Department



ASM/ABRCMS staff (left to right) Ronica Rodela, Amy Chang, Tiffani Fonseca, Irene Hulede, Leslie Robinson, Traci Williams, Shana McBean.

Important Conference Information

Information for All Attendees

ABRCMS Booth

Visit the ABRCMS booth, located near the exhibit hall, for information on the following items and activities:

- General information
- Exhibit hall raffle

Call for Judges

On-site judges for ten disciplines in the biomedical and behavioral sciences, including mathematics, are needed to evaluate the approximately 1,500 poster and oral presentations at the 2010 ABRCMS. For more information, visit the judges' lounge (Room 104, on the street level in the Charlotte Convention Center) or attend the judges' orientation (see page 20) on Thursday, November 11, at 8:15 a.m.

Cell Phone Usage

Out of consideration for your colleagues, all cell phones must be turned off in session rooms.

Child Policies

Because ABRCMS is a professional meeting, bringing young children to the conference is discouraged. Attendees who bring children to ABRCMS should contact their hotel to coordinate childcare services in their hotel rooms. Note that if children two years old and over attend any portion of the conference (e.g., sessions, exhibits, or meals), they must be paid registrants of the conference, wear a conference badge, and be accompanied by a parent and/or guardian at all times. Please note the following policies regarding children at ABRCMS:

Meals. Anyone entering conference meal areas must be registered and show an ABRCMS name badge at the door. Children under age two may accompany their parents and/or guardians to meals as long as they are seated in a stroller or on the lap of a parent or guardian. There are no exceptions to this policy.

Sessions. The presence of young children at ABRCMS sessions is particularly discouraged because this may distract other participants. Please contact your hotel to coordinate childcare services in your hotel room.

***Exhibit hall.* For any minor, regardless of registration status, a liability waiver must be completed at the registration desk by a parent or guardian. An ABRCMS staff representative will cosign the waiver and provide the parent or guardian with a copy to show security guards to gain entry into the exhibit hall. The waiver permits access to the exhibit hall only, not to meal areas or meeting rooms. No strollers are allowed in the exhibit hall. For the protection of all attendees, no dangerous or disruptive behavior will be tolerated.**

Conference Orientation

The orientation is scheduled for Thursday, November 11, from 8:15 to 9:00 a.m. and is required for all attendees; it sets the tone for participants and prepares them to take advantage of the many opportunities available at ABRCMS. Topics will include navigating through a scientific meeting, the importance of networking, and best practices in recruitment.

Dress Code

ABRCMS is a professional conference; therefore, attendees are expected to dress professionally for all conference activities. Student attendees should be especially mindful that they are at the beginning of their careers and first impressions are critical. It is recommended that male students wear button-down shirts with collars. Although ties are appropriate, they are not required. Female students must also dress professionally. Short skirts, half tops, and anything considered "club attire" are not appropriate attire for conferences.

E-Mail Center

The e-mail center, located outside Ballroom B, is available for all attendees to receive and send e-mail during ABRCMS. Please limit your sessions to 15 minutes.

E-Mail Center Hours

Wednesday, November 10	12:00 p.m. – 10:00 p.m.
Thursday, November 11	7:00 a.m. – 10:00 p.m.
Friday, November 12	7:00 a.m. – 10:00 p.m.
Saturday, November 13	7:00 a.m. – 8:00 p.m.

Evaluation

A conference evaluation will be e-mailed to all attendees immediately following the conference. We value participant feedback, and every completed evaluation helps us improve future conferences.

Exhibits

Over 300 academic institutions, organizations, foundations, professional societies, and federal agencies that offer services and programs for minority students in the biomedical and behavioral sciences will showcase information on fellowships, graduate programs, postdoctoral training opportunities, and student membership during the ABRCMS exhibits program.

The exhibits program is located in the main exhibit hall, Exhibit Hall C on the exhibit level of the convention center. The hall is open to all attendees at the following times:

Exhibits Program Schedule

Thursday, November 11	2:00 p.m. – 6:00 p.m.
Friday, November 12	10:30 a.m. – 12:00 p.m. 3:15 p.m. – 6:30 p.m.
Saturday, November 13	9:15 a.m. – 12:00 p.m.

Please refer to the ABRCMS exhibitor guide for more information.

First Aid

First Aid services will be available during the conference at the Convention Center. Check registration for location.

Hours

Wednesday, November 10	12:00 p.m. - 10:00 p.m.
Thursday, November 11	7:00 a.m. - 8:30 p.m.
Friday, November 12	7:00 a.m. - 8:00 p.m.
Saturday, November 13	7:00 a.m. - 9:30 p.m.

Message Board

A message board, prominently displayed in the registration area, provides a location for attendees to post messages, job openings, or announcements during the conference.

Name Badge Replacement Fee

Attendees must wear their ABRCMS name badge to all conference functions. Name badges permit access to all sessions, the e-mail center, exhibits program, and conference meals. No individual without an official ABRCMS name badge will be permitted in these areas. **Please note: there is a \$100 charge for replacement name badges.**

Networking Meals

ABRCMS offers many opportunities for networking. For example, during lunch, tables charted on screen according to ten scientific disciplines in the biomedical and behavioral sciences. Join colleagues with similar interests to share ideas and develop research collaborations. All ABRCMS meals are held in the Crown Ballroom, and the conference registration fee covers all meals except Friday dinner. Name badges are required to enter the meals area. See Networking Tables below.

Networking Tables

STAGE

Cell Biological Sciences	Microbiological Sciences	Chemical Sciences	
Neuroscience	Molecular Biological Sciences	Biochemical Sciences	
Social & Behavioral/ Public Health	Physical Sciences & Mathematics	Physiological Sciences	Developmental Biological Sciences

ENTRANCE

ENTRANCE

ENTRANCE

Safety Tips

Meeting participation, with its related travel, is a major component of scientific work. New cities, people, and environments move us away from our normal, routine lives and may cause us to let down our guard. It is important for ABRCMS participants to remember that no place is exempt from crime. For safety tips to help you travel safely, please inquire at the Convention Center information desk.

Speaker Ready Room

The speaker ready room is located in the Charlotte Convention Center, Room 215. Technical support staff will be available in the room to assist speakers and student oral presenters with their presentations. **All speakers should check in with the technical support staff at least one hour prior to giving their presentations.**

Information for Student Presenters

Oral Presentations

Student oral presentations have been divided into two sessions. One will be held on Thursday, November 11, from 5:15 p.m. to 6:15 p.m., and the other on Saturday, November 13, from 8:15 a.m. to 9:15 a.m. Presentation numbers and room assignments are listed in the abstract book. **Students who arrive late or who do not turn in their presentations by the deadline will not be permitted to present. There are no exceptions to this policy.**

Poster Presentations

All undergraduate, postbaccalaureate and master level student poster presentations will take place in seven sessions scheduled from Thursday through Saturday, November 11 to 13, in the Charlotte Convention Center Exhibit Hall C. Students are expected to be present at their respective poster boards and to present their research during the entire duration of their assigned time. Students who do not show up for their presentations are subject to disciplinary action and may not be permitted to present in the future. **Faculty mentors should not coach students during their presentations.** Students whose abstracts were not accepted may not put up posters or present their findings at any time during the conference.

Important Conference Information (continued)

Please refer to the poster set-up and take-down times below for each respective poster session. Posters not removed promptly may be discarded; posters set up late may be ineligible for the poster competition.

Poster Presentation Schedule

Session 1 (A)	Thursday, November 11, 2:15 p.m. – 3:30 p.m. Set-up: 2:00 p.m. – 2:15 p.m. Take-down: 5:00 p.m. – 5:15 p.m.
Session 2 (B)	Thursday, November 11, 3:45 p.m. – 5:00 p.m. Set-up: 2:00 p.m. – 2:15 p.m. Take-down : 5:00 p.m. – 5:15 p.m.
Session 3 (C)	Friday, November 12, 10:45 a.m. – 12:00 p.m. Set-up: 10:30 a.m. – 10:45 a.m. Take-down : 12:00 p.m. – 12:15 p.m.
Session 4 (D)	Friday, November 12, 3:45 p.m. – 5:00 p.m. Set-up: 3:30 p.m. – 3:45 p.m. Take-down: 6:15 p.m. – 6:30 p.m.
Session 5 (E)	Friday, November 12, 5:15 p.m. – 6:30 p.m. Set-up: 3:30 p.m. – 3:45 p.m. Take-down: 6:30 p.m. – 6:45 p.m.
Session 6 (F)	Saturday, November 13, 9:30 a.m. – 10:45 a.m. Set-up: 9:15 a.m. – 9:30 a.m. Take-down: 12:00 p.m. – 12:15 p.m.
Session 7 (G)	Saturday, November 13, 10:45 a.m. – 12:00 p.m. Set-up: 9:15 a.m. – 9:30 a.m. Take-down: 12:00 p.m. – 12:15 p.m.

Raffle Drawings

At the end of each of the seven poster sessions, a raffle is held outside the main exhibit hall at the ABRCMS booth. This is an effort to promote student participation in the exhibits program; as such, exhibitors may give raffle tickets to students who show genuine interest in the programs they have to offer. Winners receive exhibitor-donated, institutional logo items such as hats, shirts, bags, mugs, or portfolios. Students may enter to win the prizes on each day of exhibits.

Student Certificates

Each student who participates in a poster or oral presentation will be eligible to receive a certificate of participation. Certificates will be mailed after the conference to the address that the student listed on the abstract submission site.

Information for Judges

Judges' Orientation

(Mandatory for All Student Presentation Judges)

An orientation session is scheduled for all judges on Thursday, November 11, from 8:00 a.m. to 9:00 a.m. Anyone volunteering to judge student presentations **must** attend this session. Orientations will be held by scientific discipline; please attend the session for your particular discipline.

Expectations of judges and the ABRCMS judging process will be discussed, and judging packets will be distributed. If you have questions about the session, please come to the judges' lounge (Room 104, on the Street Level in the Convention Center).

Judges' Orientation: Biochemical Sciences

Location: Room 207C/D

Judges' Orientation: Cell Biological Sciences

Location: Room 217D

Judges' Orientation: Chemical Sciences

Location: Room 213A

Judges' Orientation: Developmental Biological Sciences

Location: Room 209/210

Judges' Orientation: Microbiological Sciences

Location: Room 208A/B

Judges' Orientation: Molecular Biological Sciences

Location: Room 217A

Judges' Orientation: Neuroscience

Location: Room 218/219

Judges' Orientation: Physical Sciences and Mathematics

Location: Room 213B/C

Judges' Orientation: Physiological Sciences

Location: Room 213D

Judges' Orientation: Social and Behavioral Sciences and Public Health

Location: Room 217B/C

Information for MORE/NIGMS Program Directors

PREP Program Director Meeting: This meeting is scheduled for Wednesday, November 10, from 9:30 p.m. to 10:30 p.m. at the Westin Hotel, Sharon Room.

MARC/MBRS Program Director Meeting: This meeting is scheduled for Friday, November 12, from 9:00 p.m. to 10:30 p.m. at the Hilton Hotel, North Carolina Room.

BRIDGES Program Director Meeting: This meeting is scheduled for Friday, November 12, from 9:30 p.m. to 10:30 p.m. at the Hilton Hotel, North Carolina Room.

The 2010 conference offers a comprehensive program of scientific sessions, professional development workshops, student oral and poster presentations, and exhibits. Full program details are provided later in this program; meanwhile, take note of the following:

ABRCMS Student Travel Awardee Orientation

A brief, **mandatory** orientation for all ABRCMS Student Travel Awardees will be held Wednesday, November 10, from 9:30 to 10:00 p.m. **There will be no travel reimbursement for awardees who miss this orientation.**

Call for Judges

On-site judges for ten disciplines in the biomedical and behavioral sciences, including mathematics, are needed to evaluate the approximately 1,500 poster and oral presentations at the 2010 ABRCMS. Visit judges lounge, Suite 104, for more information.

Career Coaching Corner

The Career Coaching Corner offers a unique opportunity for participants to talk one on one with leaders in all scientific disciplines. Participants should not miss this opportunity to get advice on goal setting, identifying careers, and succeeding in the sciences.

Conference Orientation

The orientation is scheduled for Thursday, November 11, from 8:15 to 9:00 a.m. and is required for all attendees; it sets the tone for participants and prepares them to take advantage of the many opportunities available at ABRCMS. Topics will include navigating through a scientific meeting, the importance of networking, and best practices in recruitment.

Happy 10th Anniversary, ABRCMS!

On Thursday, November 11, ABRCMS will mark its 10th anniversary with a celebratory dinner and an evening full of special activities. Then, on Saturday, November 13, after nearly four days of intense scientific sessions, professional development workshops, and student presentations — and with the conclusion of another successful conference — attendees will celebrate even more by dancing the night away and relaxing with friends, old and new!

Judges' Orientation

All individuals volunteering to judge student presentations **must** attend this session, scheduled for Thursday, November 11, from 8:15 to 9:00 a.m. Expectations of judges and the ABRCMS judging process will be discussed, and judging packets will be distributed. If you have questions about the session, please come to the judges' lounge (Suite 104, on the street level in the Charlotte Convention Center).

Main Exhibits Program

The Main Exhibits Program is an integral component of the conference that provides attendees with opportunities to learn about the many summer research opportunities, funding sources, internships, professional networks, and graduate programs in the biomedical and behavioral sciences, including mathematics. Approximately 250 exhibitors, including educational institutions, associations, nonprofits, federal and government agencies, industry-based companies, foundations, and research hospitals will be represented.

Exhibit Set-Up and Break Down

Wednesday, November 10:	2:00 p.m. – 8:00 p.m. (Set-up)
Thursday, November 11:	8:00 a.m. – 12:00 p.m. (Set-up)
Saturday, November 13:	12:00 p.m. – 4:00 p.m. (Break Down)

Dates and Times of Exhibition

Thursday, November 11:	2:00 p.m. – 6:00 p.m.
Friday, November 12:	10:30 a.m. – 12:00 p.m. and 3:15 p.m. – 6:30 p.m.
Saturday, November 13:	9:15 a.m. – 12:00 p.m.

Meet and Greet Speakers

Invited ABRCMS speakers will be available to meet informally with students during main exhibition hours on Thursday and Friday. This is a wonderful opportunity to meet one on one with speakers and gain in-depth knowledge of their research and pathways to success.

NIGMS Grant Management Open House

NIGMS Grants Management is located near the entrance of the main exhibit hall. Stop by to discuss grant-specific issues with any of the NIGMS Grant Management staff.

Postdoctoral Recruitment Fair Hall

ABRCMS offers an opportunity for postdoctoral fellowship program representative to recruit graduate students and postdoctoral scientists at our postdoctoral recruitment fair. Exhibition times for the fair are Thursday, November 11, from 10:30 a.m. to 12:00 p.m., and Friday, November 12, from 2:15 p.m. to 3:30 p.m. This program provides a forum for senior, doctoral-level graduate students to present their research and network with faculty, postdoctoral scientists, and peers.

Program Highlights

Professional Development Sessions

To serve the needs of ABRCMS attendees, in addition to the keynote and scientific sessions offered at the conference, we have organized a series of professional development sessions and activities specifically for you. See details on pages 18-36 of this program.

Undergraduate and Postbaccalaureate Students

Wednesday, November 10

3:00 – 6:00 p.m.

- Myers-Briggs Workshop: Using the Myers-Briggs Type Indicator for Self-Awareness and Group Learning

4:30 – 5:30 p.m.

- Presentation Techniques: How to Make Effective Poster and Oral Presentations
- Managing Stress, Time, and Work/Life Balance as a Scientist

8:15 – 9:15 p.m.

- Networking with Disciplinary Society Representatives

Thursday, November 11

8:15 – 9:00 a.m.

- Undergraduate and Postbaccalaureate Student Orientation

10:30 a.m. – 12:00 p.m.

- Picking the Perfect Ph.D. Program for You
- M.D.-Ph.D. — Is It Right for Me?
- Summer Research Programs — Essential Components of the Graduate Application Process

2:30 – 3:30 p.m.

- Career Coaching Corner/Meet and Greet Speakers



Friday, November 12

11:00 – 12:00 p.m.

- Career Coaching Corner/Meet and Greet Speakers

2:15 – 3:30 p.m.

- Mentoring: An Enabling Relationship that Fosters Professional Growth and Development

6:45 – 7:45 p.m.

- Strategies for Taking Standardized Admissions Tests: Preparing for the GRE and MCAT Exams
- Graduate School Application Process/Interviewing for Graduate School Admissions: Do's and Don'ts
- The Ins and Outs of Time between College and Graduate School — the Postbaccalaureate Experience

Saturday, November 13

7:30 – 8:00 a.m.

- Open Forum for Feedback

2:30 – 3:45 p.m.

- Graduate School Experience: My Personal Story

4:00 – 5:30 p.m.

- Speed Application — Grad Application Networking
- Writing a Successful Personal Statement for Graduate School Admission and/or Summer Programs — Getting into Highly Competitive Graduate Schools and Summer Programs



Graduate Students and Postdoctoral Scientists

Wednesday, November 10

3:00 – 6:00 p.m.

- Myers-Briggs Workshop: Using the Myers-Briggs Type Indicator for Self-Awareness and Group Learning

4:30 – 5:30 p.m.

- Managing Stress, Time, and Work/Life Balance as a Scientist

8:15 – 9:15 p.m.

- Networking with Disciplinary Society Representatives

9:30 – 10:30 p.m.

- Graduate Student and Postdoctoral Scientist Mixer

Thursday, November 11

8:15 – 9:00 a.m.

- Graduate Students and Postdoctoral Scientists Orientation

10:30 a.m. – 12:00 p.m.

- Doctoral Graduate Student Poster Session 1 and Postdoctoral Fellowship Recruitment Fair

2:30 – 3:30 p.m.

- Career Coaching Corner/Meet and Greet Speakers

Friday, November 12

11:00 – 12:00 p.m.

- Career Coaching Corner/Meet and Greet Speakers

2:15 – 3:30 p.m.

- Doctoral Graduate Student Poster Session 2 and Postdoctoral Fellowship Recruitment Fair

2:15 – 3:30 p.m.

- Mentoring: An Enabling Relationship that Fosters Professional Growth and Development

Saturday, November 13

7:30 – 8:00 a.m.

- Open Forum for Feedback

2:30 – 3:45 p.m.

- Graduate School Experience: My Personal Story
- Getting Published: Advice for Graduate Students and Postdoctoral Scientists

4:00 – 5:30 p.m.

- Opportunities for a Successful Early Scientist Career Experience

Faculty, Program Directors and Exhibitors

Wednesday, November 10

3:00 – 6:00 p.m.

- Myers-Briggs Workshop: Using the Myers-Briggs Type Indicator for Self-Awareness and Group Learning

4:30 – 5:30 p.m.

- Managing Stress, Time, and Work/Life Balance as a Scientist

8:15 – 9:15 p.m.

- Networking with Disciplinary Society Representatives

9:30 – 10:30 p.m.

- PREP Program Director Meeting

Thursday, November 11

8:15 – 9:00 a.m.

- Judges Orientation (All Ten Disciplines)
- Nonstudent Orientation (First-Time Exhibitors, Returning Exhibitors, Faculty, and Program Directors)

10:30 – 12:00 p.m.

- Making Learning a Priority: Insights from Minority High Achievers

Friday, November 12

2:15 – 3:30 p.m.

- NIGMS Grants Management Workshop

7:30 – 9:00 p.m.

- Reception for Program Directors, Speakers, Exhibitors, and Judges

9:00 – 10:30 p.m.

- MARC/MBRS/RISE/SCORE Program Director Meetings

9:30 – 10:30 p.m.

- BRIDGES Program Director Meeting

Saturday, November 13

7:30 – 8:00 a.m.

- Open Forum for Feedback

8:15 – 9:15 a.m.

- Exhibitor Feedback Session

2:30 – 3:45 p.m.

- Getting Published: Advice for Graduate Students, Postdoctoral Scientists & Junior Faculty

2:30 – 5:00 p.m.

- Vision and Change in Undergraduate Biology

5:30 – 6:30 p.m.

- MARC T34/NIGMS T32 Program Directors “Meet and Greet” Gathering

Graduate Student and Postdoctoral Scientist Opportunities

PROGRAM INCLUDES

- **Doctoral-level Graduate Student Poster Presentations**
- **Postdoctoral Fellowship Opportunities**
- **Networking Reception**
- **Mentoring**
- **Career Counseling**

Since 2001, ABRCMS has nearly tripled the number of graduate and postdoctoral scientist attendees. This has prompted ABRCMS to offer a new program to provide an opportunity for:

1. Representatives from postdoctoral fellowship programs to recruit graduate students and postdoctoral scientists.
2. Doctoral-level graduate students to present their research and network with faculty, postdoctoral scientists and colleagues.



Number of Graduate & Postdoc Attendees

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010*
Grad/Postdoc	161	251	311	316	371	400	235	294	293	262

*As of October 25, 2010.

NEW THIS YEAR

Keystone Travel Award for Graduate Students & Postdocs

Keystone Symposia on Molecular and Cellular Biology (formerly the UCLA Symposia) will grant two travel awards to eligible graduate students and postdocs attending the 2010 ABRCMS. These awards will cover the registration fee for the conference in addition to travel and lodging expenses up to \$1,000. Award eligibility requires submission of a brief survey during ABRCMS.

“The graduate student and post-doctoral sessions were excellent additions. The number of the attendees at the conference was astronomical, yet the environment was extremely personal. Everyone appeared totally integrated, and the energy of young minds absorbing energy in the form of information was very exhilarating. Thank you for this opportunity.”

2008 GRADUATE STUDENT

“Please continue the postdoc recruitment fair. We found this very helpful for networking with senior graduate students. We were able to identify potential postdocs for our training grant program.”

2009 FACULTY PARTICIPANT

“As a postdoc recruiter, I found the graduate student poster presentations to be very helpful. It allowed me to speak with the students more directly about their research and to evaluate their scientific abilities.”

POSTDOCTORAL RECRUITER

Conference Program

Keynote, Plenary, and Concurrent Scientific Speakers

Wednesday, November 10, 7:30 – 8:00 p.m.

OPENING KEYNOTE ADDRESS



Why Grey Matter Matters

Juliet V. Garcia, Ph.D.

University of Texas at Brownsville, Brownsville, TX

Friday, November 12, 9:30 – 10:30 a.m.

PLENARY SCIENTIFIC SESSION



Imaging the Glycome

Carolyn Bertozzi, Ph.D.

Molecular Foundry, Lawrence Berkeley National Laboratory, and University of California, Berkeley, Berkeley, CA

Thursday, November 11, 9:15 – 10:15 a.m.

PLENARY SCIENTIFIC SESSION



In Search of King Solomon's Ring: Studies on the Cognitive and Communicative Abilities of Grey Parrots

Irene Pepperberg, Ph.D.

Harvard University, Cambridge, MA, and Brandeis University, Waltham, MA

Friday, November 12, 1:00 – 2:00 p.m.

LUNCHEON KEYNOTE ADDRESS



Exceptional Opportunities for Biomedical Research

Francis S. Collins, M.D., Ph.D.

National Institutes of Health, Bethesda, MD

Thursday, November 11, 1:00 – 2:00 p.m.

PLENARY SCIENTIFIC SESSION



The Dark Side of the Universe: Black Holes, Dark Matter, Dark Energy

Neil deGrasse Tyson, Ph.D.

Hayden Planetarium, New York, NY

Saturday, November 13, 1:00 – 2:00 p.m.

LUNCHEON KEYNOTE ADDRESS



An Afternoon with Maya Angelou

Maya Angelou, Numerous Honorary Degrees

Educator, Poet, Author, and Entertainer

Thursday, November 11, 7:40 – 8:00 p.m.

ANNIVERSARY REMARKS



Opportunities and Challenges in Biomedical Research

Jeremy M. Berg, Ph.D.

National Institute of General Medical Sciences, National Institutes of Health, Bethesda, MD

“

I was very impressed by the level of professionalism of the student presenters. The scientific research presented at this conference by students and invited speakers was excellent. This is the best conference that I have attended in terms of offering students opportunities in research. The number of university recruiters, networking sessions, and motivational speakers and high-level science were a winning mixture for encouraging young scientists.”

2009 FACULTY PARTICIPANT

Concurrent Scientific Sessions – Friday, November 12, 8:15 – 9:15 a.m.



Concurrent Scientific Session 1

A Study of Thymic Nurse Cell Function during T-Cell Development

(Sponsored by the American Society for Cell Biology)

Jerry Charles Guyden, Ph.D.

City College of New York, CUNY, New York, NY



Concurrent Scientific Session 2

Toxicity: Key Consideration for Drug Discovery and Development

(Sponsored by the Society of Toxicology)

Myrtle A. Davis, D.V.M., Ph.D.

National Cancer Institute, National Institutes of Health, Bethesda, MD



Concurrent Scientific Session 3

HIV-Related Pulmonary Arterial Hypertension: Lessons from Non-Human Primate Models

(Sponsored by the American Society for Microbiology)

Sonia C. Flores, Ph.D.

University of Colorado, Denver, CO



Concurrent Scientific Session 4

The Role of Doctor-Patient Relationships in Overcoming Healthcare Disparities

Lisa A. Cooper, M.D., M.P.H., F.A.C.P.

The Johns Hopkins University School of Medicine, Baltimore, MD



Concurrent Scientific Session 5

Zirconia and Hafnia Materials in Bioanalysis

Luis A. Colón, Ph.D.

University at Buffalo, Buffalo, NY



Concurrent Scientific Session 6

Biological Sensors of Oxygen

Marie-Alda Gilles-Gonzalez, Ph.D.

UT Southwestern Medical Center, Dallas, TX



Concurrent Scientific Session 7

Mathematical Epidemiology with Applications: The Case of Influenza in Mexico

Carlos Castillo-Chavez, Ph.D.

Mathematical and Computational Modeling Sciences Center, Arizona State University, Tempe, AZ



Concurrent Scientific Session 8

Food for Health: Connecting Genetic Diversity and Epigenetics to Improved Nutrition and Cancer Prevention

(Sponsored by the American Society of Plant Biologists)

Eleanor Wurtzel, Ph.D.

Lehman College of CUNY, Bronx, NY



Concurrent Scientific Session 9

Raymond Rodriguez, Ph.D.

University of California, Davis, Davis, CA



Continue to do everything that has made the conference a success! This was my first year attending, and EVERYTHING from registration to packing up to leave was one of the smoothest processes I've experienced. I'm looking forward to attending next year's conference in Charlotte. Thank you!

2009 EXHIBITOR



ABRCMS sessions began and ended on time. The venue was great (spacious and easy to navigate). The speakers were inspiring and engaging. As a first time attendee and judge, I was pleasantly surprised by the high quality of student posters and presentation. It was absolutely the best conference I have ever attended! Congratulations to the organizers for a job very well done.

2009 FACULTY PARTICIPANT

Final Program

Wednesday, November 10, 2010

12:00 – 8:00 p.m.	Registration Open	Location: Concourse C Foyer
12:00 – 4:00 p.m.	EXPLORE CHARLOTTE! EXPLORE CHARLOTTE!	
2:00 – 8:00 p.m.	Exhibit Set-up	Location: Exhibit Hall C
3:00 – 6:00 p.m.	Myers-Briggs Workshop: Using the Myers-Briggs Type Indicator for Self-Awareness and Group Learning <i>(Recommended for all attendees)</i> The Myers-Briggs Type Indicator is a personality assessment tool that will help you understand individual differences and uncover new ways to work and interact with others. This three-hour session will help you understand and use personality preferences to enhance learning, improve individual and team performance, develop leadership skills, and reduce conflict. Using examples from the classroom, workplace, laboratory, and other areas of life, the workshop helps you develop an action plan based on the material presented. Knowledge gained from this workshop can benefit you throughout your professional career. (Sponsored by the National Institutes of Health Office of Intramural Training and Education; workshop books kindly provided by Otto Kroeger Associates.) <i>Speaker</i> Sharon L. Milgram, Ph.D. , National Institutes of Health Office of Intramural Training & Education; National Heart, Lung, and Blood Institute; and National Human Genome Research Institute, Bethesda, MD	Location: Ballroom C
4:30 – 5:30 p.m.	PRECONFERENCE PROFESSIONAL DEVELOPMENT SESSIONS <i>(two session options)</i>	
	Session 1 Presentation Techniques: How to Make Effective Poster and Oral Presentations <i>(Recommended for first-time presenters)</i> There are several essential elements of scientific communication that all students must master to be effective in their work. This workshop discusses strategies for effectively attending scientific meetings and improving poster presentations, platform talks, and lectures. Students will learn how to develop compelling presentations with presentation software (e.g., PowerPoint), prepare tables and graphics, and communicate effectively as scientists and educators. <i>Speaker</i> C. Gita Bosch, M.B.A., Ph.D. , Gerstner Sloan Kettering Graduate School, New York, NY	Location: Room 213D
	Session 2 Managing Stress, Time, and Work/Life Balance as a Scientist <i>(Recommended for all attendees)</i> This is a guided and facilitated, private and personal reflection of your life as a scientist. You will have the opportunity to hear information that assists you in journaling and thinking about how you want your life to be- which reflects work/ life balance and managing your daily stresses with the time you have available. We will reflect in interesting ways on how to close the gap between the quality of your life as you want it to be as a scientist and how it presently is. You will be guided in an exercise where you will take an objective picture of how your life is presently organized to manage your stresses and time, and develop strategies and a plan to find your own balance. <i>Speaker</i> Suzanne Anderson Zahir, M.Ed. , The Collaborations Group, Inc., Atlanta, GA	Location: Room 213B/213C
6:00 – 6:45 p.m.	Dinner	Location: Crown Ballroom
6:45 – 8:00 p.m.	Conference Overview and 10th Anniversary Kickoff John Fitzgerald Gates, Ph.D. , Criticality Management Consulting, New York, NY <i>Opening Remarks</i> Clifford W. Houston, Ph.D. , University of Texas Medical Center at Galveston, Galveston, TX <i>Conference Welcome</i> Clifton A. Poodry, Ph.D. , Minority Opportunities in Research Division, National Institute of General Medical Sciences, National Institutes of Health, Bethesda, MD <i>Keynote Address</i> Why Grey Matter Matters In her ABRCMS address, University of Texas at Brownsville president Juliet V. Garcia will focus on the importance of human capital, especially in minority populations. Some people are still surprised that the most cutting-edge research in gravitational wave astronomy is taking place in Brownsville or that Brownsville students — from kindergarten to college — are earning chess championships or that	Location: Crown Ballroom

Wednesday, November 10, 2010

we have undergraduates engaged in important biomedical research. It doesn't matter that the students may be first-generation college bound or that they meet all the federal criteria to be designated "at risk." All they need is the opportunity, and these students often surpass even their own expectations.

Speaker

Juliet V. Garcia, Ph.D., University of Texas at Brownsville, Brownsville, TX

Introduction of Speaker

Ilenys Pérez-Díaz, Ph.D., Former MARC Student, North Carolina State University, USDA Research Science Unit, Raleigh, NC

8:15 – 9:15 p.m.

Networking with Disciplinary Society Representatives

The goal of this session is to transition students to the next level — being involved with their disciplinary societies and attending professional society meetings. In this informal forum, led by disciplinary society members, society representatives interact one on one with students and discuss student activities and programs offered by their societies or organizations. More experienced scientists will discuss career pathways and work and personal life balance, and program directors will be in attendance to mentor students.

Session Leaders to Be Determined

Networking with Disciplinary Societies 1

- Microbiological Sciences

Location: Room 217A

Networking with Disciplinary Societies 2

- Cell Biological Sciences
- Developmental Biological Sciences
- Molecular Biological Sciences

Location: Room 217B/217C

Networking with Disciplinary Societies 3

- Chemical Sciences
- Biochemical Sciences

Location: Room 217D

Networking with Disciplinary Societies 4

- Neuroscience/Physiological Sciences

Location: Room 209/210

Networking with Disciplinary Societies 5

- Social and Behavioral Sciences and Public Health

Location: Room 218/219

Networking with Disciplinary Societies 6

- Physical Sciences and Mathematics

Location: Room 213A

Networking with Disciplinary Societies 7

- Plant Biology

Location: Room 213B/213C

9:30 – 10:00 p.m.

ABRCMS Student Travel Awardees Orientation

Location: Room 213D

9:30 – 10:30 p.m.

PREP Director Meeting

Location: Westin Hotel, Sharon Room

9:30 – 10:30 p.m.

GRADUATE STUDENT POSTDOCTORAL SCIENTIST MIXER

Location: Westin Hotel, Ember Grille

This mixer is a great opportunity for graduate students and postdoctoral scientists to relax and network. Recruiters of postdoctoral positions are invited to attend.

“ This was the first time I have attended a national conference, so my perspective may be limited. I found ABRCMS to be exceptional in delivering quality science, quality sessions, and quality people. After two days here, I talked to my adviser and said this conference is spectacular, we need to get more of our minority students here, and we need to get them here early.

Amazing conference! ”

2009 UNDERGRADUATE STUDENT



Continued on next page

Thursday, November 11, 2010

7:00 a.m. – 5:00 p.m. **Registration Open**

Location: Concourse C Foyer

7:00 – 8:00 a.m. **Networking Breakfast**

Location: Crown Ballroom

8:00 a.m. –
12:00 p.m. **Exhibit Set-up**

Location: Exhibit Hall

8:15 – 9:00 a.m. **CONFERENCE ORIENTATION**

Orientation for Undergraduate Students and Postbaccalaureates

Location: Ballroom A/D

This orientation sets the tone of the conference for undergraduate and postbaccalaureate attendees and prepares them to take advantage of the many opportunities available at ABRCMS. Presentations focus on (i) program overview, (ii) essential conference etiquette and how to make the best of a scientific meeting, (iii) establishing mentoring relationships, (iv) networking opportunities and techniques, and (v) professional growth opportunities.

Program Overview and Making the Best of ABRCMS

Speaker

Sandra Murray, Ph.D., University of Pittsburgh School of Medicine, Pittsburgh, PA

Networking as a Required Life Skill and Professionalism as a Necessary Attribute for Students

Speaker

Howard G. Adams, Ph.D., H.G. Adams and Associates, Norfolk, VA

Orientation for Graduate Students and Postdoctoral Scientists

Location: Ballroom C

This orientation sets the tone of the conference for graduate student and postdoctoral scientist attendees and prepares them to take advantage of the many opportunities available at ABRCMS. Presentations focus on (i) program overview, (ii) essential conference etiquette and how to make the best of a scientific meeting, (iii) establishing mentoring relationships, (iv) networking opportunities and techniques, and (v) professional growth opportunities.

Speaker

Ansley Abraham, Ph.D., Southern Regional Education Board, Atlanta, GA

Orientation for Exhibitors, Faculty, and Program Directors

Location: Room 203A/203B

This session focuses on the direction of the National Institute of General Medical Sciences/Minority Opportunities in Research (MORE) programs, particularly in relation to the expectations of exhibitors at ABRCMS. Topics include (i) MORE goals and the big picture, (ii) conference expectations, (iii) the exhibitor's role and potential contributions to ABRCMS and MORE, and (iv) program highlights.

The session also focuses on how exhibitors, faculty, and program directors can take leadership roles at ABRCMS. It features the exhibitor's role and potential contributions to ABRCMS and MORE and program highlights.

Speakers

Mary Sanchez Lanier, Ph.D., Washington State University, Pullman, WA

John Augusto, Ph.D., University of Kansas, Lawrence, KS

Orientation for Judges (All Ten Disciplines)

(Mandatory for all student presentation judges)

Expectations of judges and the ABRCMS judging process will be discussed. Judging packets will be distributed.

Locations:

- *Biochemical Sciences* Room 207C/207D
- *Cell Biological Sciences* Room 217D
- *Chemical Sciences* Room 213A
- *Developmental Biological Sciences* Room 209/210
- *Microbiological Sciences* Room 208A/208B
- *Molecular Biological Sciences* Room 217A
- *Neuroscience* Room 218/219
- *Physical Sciences and Mathematics* Room 213B/213C
- *Physiological Sciences* Room 213D
- *Social and Behavioral Sciences and Public Health* Room 217B/217C

Judges needed!
Attend this session if you are interested in serving as an ABRCMS judge.

Thursday, November 11, 2010

9:15 – 10:15 a.m.

PLENARY SCIENTIFIC SESSION

Location: Ballroom A/D

In Search of King Solomon's Ring: Studies on the Cognitive and Communicative Abilities of Grey Parrots

Animal behavior, animal cognition, and comparative psychology expert Irene Pepperberg will discuss her work of the past 30 years, training grey parrots to learn aspects of English speech and then using this communication code to study their intelligence. The oldest bird, Alex, succeeded in tasks that demonstrated a competence comparable to apes, dolphins, and young children.

Speaker

Irene Pepperberg, Ph.D., Harvard University, Cambridge, MA; and Brandeis University, Waltham, MA

Introducing Speaker

Marie-Alda Gilles-Gonzalez, Ph.D., UT Southwestern Medical Center, Dallas, TX

10:30 a.m. –
12:00 p.m.

CONCURRENT PROFESSIONAL DEVELOPMENT SESSIONS

(four session options)

Session 1

Location: 208A/208B

Picking the Perfect Ph.D. Program for You

(Recommended for undergraduate students interested in the Ph.D. track)

Pursuing a Ph.D. requires a major investment of time and energy. You will spend at least four years working as hard as you have ever worked and deferring earnings, so picking the Ph.D. program that will provide you with the best chance of success is crucial. Clearly you want to select a program with research strengths that match your interests. This workshop helps pose (and provide you with strategies for answering) questions that are equally important, including:

- Is the program structure compatible with my strengths and goals?
- How successful is the program at producing Ph.D.s, and what careers are those Ph.D.s pursuing?
- Will the program provide me with the professional skills I need to succeed?
- Will I have the support I need to complete the program?

Speaker

Sharon L. Milgram, Ph.D., National Institutes of Health Office of Intramural Training & Education; National Heart, Lung, and Blood Institute; and National Human Genome Research Institute, Bethesda, MD

Session 2

Location: Room 203A/203B

M.D.-Ph.D. — Is It Right for Me?

(Recommended for undergraduate students interested in the M.D.-Ph.D. track)

The goals of this session are to provide potential M.D.-Ph.D. applicants with information necessary to (i) decide if this is the correct pathway for them, (ii) prepare and plan for the M.D.-Ph.D. admissions process, and (iii) create and submit a competitive application packet. Topics include the admissions process, timeline, guidelines for preparing an application, school selection, criteria evaluated by M.D.-Ph.D. programs, necessary research experience, national program data, the interview process, matriculation, the M.D.-Ph.D. curriculum, and post-training pathways. The session ends with a Q&A period. In addition, several M.D.-Ph.D. directors and administrators will be present to speak with students individually.

Speakers

Joseph T. Barbieri, Ph.D., Medical Scientist Training Program, Medical College of Wisconsin, Milwaukee, WI

Ruth Gotian, M.S., Weill Cornell/Rockefeller/Sloan-Kettering, New York, NY

Skip Brass, M.D., Ph.D., Medical Scientist Training Program, University of Pennsylvania School of Medicine, Philadelphia, PA

Jana Marie Toutolmin, B.S., University of California, San Francisco, CA

Session 3

Location: Room 207C/207D

Summer Research Programs — Essential Components for Undergraduate Research Training

(Recommended for freshman and community college students)

Summer programs are essential for enhancing your graduate school admissions file. This session discusses (i) how to navigate the ABRCMS exhibit hall and identify the best summer program for you, (ii) the importance of summer internships, (iii) selecting and applying to these programs, (iv) establishing a good relationship with your faculty mentor, and (v) how to have a successful summer research experience. Don't miss this opportunity to take home tips and strategies for getting accepted into the best summer programs!

Speakers

Mekbib Gameda, B.S., New York University, New York, NY

Agustin Chikas, Ph.D., Cold Spring Harbor Laboratory, Cold Spring Harbor, NY

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	Session 4	Location: Room 207A/207B
	Making Learning a Priority: Insights from Minority High Achievers <i>(Recommended for faculty, exhibitors, and program directors)</i> High-achieving minorities are predicted to achieve at the highest levels of academic success. Because of their academic success, some faculty members and administrators assume that high achievers are doing well and require less support, but like so many other student populations, high achievers face distinct challenges that can impede their success. Many academically talented minority students encounter stereotypes about their academic ability and racial group affiliation, and they are often challenged with finding a community of peers who share their love of academics as well as their sense of commitment and pride in culture and community. Join us as we gain insights from their experiences with faculty and peers in and outside of the classroom and learn more about the within-group differences in this diverse community of minority scholars. <i>Speaker</i> Sharon Fries-Britt, Ph.D. , University of Maryland, College Park, College Park, MD	
10:30 a.m. – 12:00 p.m.	Doctoral-Level Graduate Student Poster Session 1 and Postdoctoral Fellowship Recruitment Fair <i>(Recommended for graduate students, postdoctoral scientists, and exhibitors)</i> The first 45 minutes of the session is a forum for doctoral-level graduate students to present posters and for graduate students and postdoctoral scientists to share experiences with each other. Any doctoral-level graduate student or postdoctoral scientist interested in securing a postdoctoral position or faculty position or networking with faculty and colleagues should attend. Postdoctoral fellowship program representatives should not miss this great recruitment opportunity!	Location: Ballroom B
12:15 – 1:00 p.m.	Networking Lunch	Location: Crown Ballroom (overflow in Ballroom C)
1:00 – 2:00 p.m.	PLENARY SCIENTIFIC SESSION The Dark Side of the Universe: Black Holes, Dark Matter, Dark Energy In this session, Hayden Planetarium director Neil deGrasse Tyson introduces the physics of black holes by explaining the gory details of what would happen to your body if you fell into one. “Holy Wars” examines the needless friction between science and religion in the context of historical conflicts. The “Search for Life in the Universe” explores astral life from the frontiers of astrobiology. And “Hollywood Nights” assails the movie industry’s feeble efforts to get the night skies right. Known for his ability to blend content, accessibility, and humor, Tyson is a natural teacher who simplifies some of the most complex concepts in astrophysics while simultaneously sharing his infectious excitement about our universe. Tyson will also highlight parts of his memoir, <i>The Sky Is Not the Limit: Adventures of an Urban Astrophysicist</i> . <i>Speaker</i> Neil deGrasse Tyson, Ph.D. , Hayden Planetarium, New York, NY <i>Introducing Speaker</i> Sandra Murray, Ph.D. , University of Pittsburgh School of Medicine, Pittsburgh, PA	Location: Crown Ballroom (overflow in Ballroom C)
2:00 – 6:00 p.m.	Exhibits Open	Location: Exhibit Hall C
2:15 – 3:30 p.m.	POSTER SESSION 1 (A)	Location: Exhibit Hall C
2:30 – 3:30 p.m.	Career Coaching Corner Open/“Meet and Greet” Speakers	
3:45 – 5:00 p.m.	POSTER SESSION 2 (B)	Location: Exhibit Hall C
5:15 – 6:15 p.m.	ORAL PRESENTATION SESSIONS 1 – 10	
	Oral Session 1: Biochemical Sciences	Location: Room 207 C/D
	O1 Understanding the Molecular Mechanism of Antagonism in <i>N</i> -Methyl-D-Aspartate Receptors Claudio L. Morales Pérez , University of Puerto Rico, Río Piedras Campus, San Juan, PR	
	O2 Inhibitory Effects of Salts on Chicken Phosphofructokinase-1 Wendy Plante , San Diego Mesa College, San Diego, CA	
	O3 Identification and Cloning of a Glutathione Transferase Superfamily Gene in <i>Leishmania tarentolae</i> Nana Yaw Osei-Owusu , University of Maryland Eastern Shore, Princess Anne, MD	
	O4 Identification of a Voltage-Gated Proton Channel Gene in <i>Karlodinium veneficum</i> Courtney Streater , University of Maryland Eastern Shore, Princess Anne, MD	
	Session Moderator Charles Bevins, M.D./Ph.D. , University of California, Davis, Davis, CA	

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Oral Session 2: Cell Biological Sciences

Location: Room 217 D

- O5** Tmprss2 — Ets-Related Gene Fusions in Mouse Models for Prostate Cancer
Nicola E. Abdul, University of the District of Columbia, Washington, DC
- O6** The Response of the p53 Pathway following Dose Dependent Irradiation in Mdm2^{SNP309} Mice
Beatriz Andujar, University of Puerto Rico, Mayaguez Campus, Mayaguez, PR
- O7** Gene Expression Profiling and Pathway Analysis following the Targeting of Hh Signaling by GANT61 in Human Colon Carcinoma Cell Lines
Leanne Woods, The University of Akron, Akron, OH
- O8** The Transcription Factor c-Myb Regulates Neuromedin U Expression in Primary Human CD34⁺ Cells Undergoing Erythroid Differentiation
Roxana Loperena, University of Puerto Rico, Rio Piedras Campus, San Juan, PR

Session Moderator

Cynthia van Golen, Ph.D., Delaware State University, Dover, DE

Oral Session 3: Chemical Sciences

Location: Room 213 A

- O9** Novel Tunable Temperature-Responsive Nanofibers for Biomedical Applications
Martial A. Webster, Jr., Morehouse, Atlanta, GA
- O10** Novel Zn-Porphyrin Tweezer as a Circular Dichroism Sensitive Reporter of Amino Alcohol Chirality
Yashira L. Negron-Abriel, University of Puerto Rico, Rio Piedras Campus, San Juan, PR
- O11** Synthesis of 1,13-Dichloro 5,6,8,9-Tetraaza Dibenzo Anthracene, Helical Considerations
Yvonne A. Pupilampu-Dove, Department of Natural Sciences, University of Maryland Eastern Shore, Princess Anne, MD
- O12** Tunable Temperature-Responsive Hydrogels as Novel Biomedical Materials
Brandon M. Lynch, Morehouse College, Atlanta, GA

Session Moderator

Alvin Holder, Ph.D., The University of Southern Mississippi, Hattiesburg, MS

Oral Session 4: Developmental Biological Sciences

Location: Room 209/210

- O13** Dependence of Embryonic Stem Cell Pluripotency Transcripts on Cell Cycle
Heba Elnaiem, Howard University, Washington, DC
- O14** Identifying Regulatory Elements for MicroRNA-9 Expression in the Central Nervous System
Mytrang H. Do, Louisiana State University, New Orleans, LA
- O15** Spatial Patterning of Muscle Fibers in the *X. laevis* Embryo
Armbien Sabillo, San Francisco State University, San Francisco, CA
- O16** Endocardial-Myocardial Interactions Direct Cardiac Morphogenesis
Olivier F. Noel, Queens College of CUNY, Flushing, NY

Session Moderator

Judith Venuti, Ph.D., Louisiana State University HSC, New Orleans, LA



◀ A faculty member counsels a student during the “Meet and Greet” speaker session.



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Oral Session 5: Microbiological Sciences

Location: Room 208 A/B

- O17** Host-Response Genetic Profiling from *Bacillus anthracis* for Asymptomatic Detection in Dendritic Cells
JeanHeyd Meneide, Morehouse College, Atlanta, GA
- O18** Bacterial LPS Triggers Distinct Cellular Responses in Interleukin-4 and Interleukin-15 Dendritic Cells
Olufunmilola Adebajo, University of Maryland School of Medicine, Baltimore, MD
- O19** The Investigation of Metacaspase Protein Expression During Aging in *Karenia brevis* and Heat Stress in *Symbiodinium microadriaticum*
Andrew Z. Morrison, Savannah State University, Savannah, GA
- O20** Increased β -Arrestin-1 Expression Inhibits Apoptotic Signaling Pathways Induced by Tumor Necrosis Factor- α (tnf- α)
Melissa N. Youssef, Furman University, Greenville, SC

Session Moderator

Sherrice Allen, Ph.D., Fayetteville State University, Fayetteville, NC

Oral Session 6: Molecular Biological Sciences

Location: Room 217 A

- O21** Cryptic Species of *Polycera alabe* from the Eastern North Pacific Ocean
Monica Santander, California State Polytechnic University, Pomona, CA
- O22** Role of Muscleblind on Aberrant Splicing in Myotonic Dystrophy Type 2
Marlyn S. Davila, University of Houston-Downtown, Houston, TX
- O23** An *In Vivo* Model to Study the Effects of p53 Dosage in Mammalian Aging
Behram S. Radmanesh, University of Minnesota, Minneapolis, MN
- O24** A Comparative Proteomic Analysis of the Reproductive Organs of *Anopheles gambiae* Mosquitoes
Priscilla K. Abiakonu, University of Maryland Eastern Shore, Princess Anne, MD

Session Moderator

Marlene de la Cruz, Ph.D., University of California, Irvine, CA

Oral Session 7: Neuroscience

Location: Room 218/219

- O25** The Effects of Exposure to Mold on Learning and Memory in Mice
Adeola N. Harewood, Hunter College of CUNY, New York City, NY
- O26** Effect of Dipyrindamole on Brain Microvasculature in Mouse Model of Cerebral Amyloid Angiopathy
Christopher M. Ventura, University of California, Irvine, Irvine, CA
- O27** The Role of the Vomeronasal Organ and the Main Olfactory Epithelium in Fear Reaction in Mice
Janell S. Payano Sosa, University of Maryland, Baltimore County, Baltimore, MD
- O28** Investigating the Role of Gpr98 (ush2c) in Zebrafish Sensory Cell Development and Function
Kelsey L. Anubhl, Spring Hill College, Mobile, AL

Session Moderator

Peter O'Day, Ph.D., University of Oregon, Eugene, OR

Oral Session 8: Physical Sciences and Mathematics

Location: Room 213 B/C

- O29** Metabolic Flux Analysis: Application to Pre-Transplantation of INS-1 Beta Cells
Jonathan M. Jones, University of Georgia, Athens, GA
- O30** Long-Term *In Vivo* Characterizations of Various Alginate Microcapsules in BALB/c Mice
Chun Yong, Georgia Institute of Technology, Atlanta, GA
- O31** Incidence of Heart Failure and Blood Pressure Control Is a Strong Predictor of Graft Failure and other Cardiovascular Events Regardless of Race
Carly S. Ingram, Newberry College, Newberry, SC

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- O32** Evolution of Dynamic Braitenberg Vehicles for Odor Mediated Search
Ivan I. Rodriguez-Pinto, University of California-Los Angeles, Los Angeles, CA

Session Moderator

Rebecca Hubbard, Ph.D., University of Washington, Seattle, WA

Oral Session 9: Physiological Sciences

Location: Room 213 D

- O33** Effect of Zinc on Aerobic Metabolism and Cellular Respiration in Crayfish *Orconectis immunis* Acclimated at Various Temperatures
Maria R. Juarez Demery, City Colleges of Chicago, Chicago, IL
- O34** Exocytosis in Mast Cells
Adolfo Lara, University of Houston-Downtown, Houston, TX
- O35** Mechanisms of Osteopathic Manipulative Medicine (OMM): Effects of OMM on Pain-Induced Sympathoexcitation
Nerissa A. Misuela, St. Mary's University San Antonio, San Antonio, TX
- O36** The Molecular Basis of Atypical Antipsychotic Drug-Mediated Weight Gain: The Role of IPMK in the LKB1-AMPK Pathway
Torrey L. Salmon, The University of Scranton, Henryville, PA

Session Moderator

Martin Muntzel, Ph.D., Lehman College of CUNY, Bronx, NY

Oral Session 10: Social and Behavioral Sciences and Public Health

Location: Room 217 B/C

- O37** Beaver Dams Act as Natural Water Quality Filters for New York City's Drinking Water Supply
Joshua R. Salmon, Dutchess Community College, Poughkeepsie, NY
- O38** Children's Explanations and What They Reveal about Their Conceptions of Free Will: A Developmental Approach
Jimena Santillan, Hunter College of CUNY, New York, NY
- O39** What You Say and How You Say It: Verbal and Non-Verbal Reactions to Discrimination Claims
Karina V. Medved, San Diego State University, San Diego, CA
- O40** Understanding Self-Efficacy and Well-Being in Patients with Schizophrenia
Denisse Tiznado, San Diego State University, San Diego, CA

Session Moderator

Louise Hainline, Ph.D., Brooklyn College of CUNY, Brooklyn, NY

6:30 – 8:30 p.m.

HAPPY 10th ANNIVERSARY, ABRCMS! ANNIVERSARY DINNER

Location: Crown Ballroom, with overflow in Ballroom C

Welcome

John Fitzgerald Gates, Ph.D., Criticality Management Consulting, New York, NY

ABRCMS Chairperson Address

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

Anniversary Remarks from the NIGMS Director

Opportunities and Challenges in Biomedical Research

Jeremy M. Berg, Ph.D., National Institutes of General Medical Sciences, National Institutes of Health, Bethesda, MD

Introducing Speaker

Mary Sanchez Lanier, Ph.D., Washington State University, Pullman, WA

Awards Ceremony

Closing Remarks

Clifton A. Poodry, Ph.D., Minority Opportunities in Research Division, National Institutes of General Medical Sciences, National Institutes of Health, Bethesda, MD

9:00 – 11:00 p.m.

ABRCMS 10th ANNIVERSARY FESTIVITIES – SHH! IT'S A SURPRISE!

Location: Offsite

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7:00 a.m. – 5:00 p.m. **Registration Open**

Location: Concourse C Foyer

7:00 – 8:00 a.m. **Networking Breakfast**

Location: Crown Ballroom

8:15 – 9:15 a.m. **CONCURRENT SCIENTIFIC SESSIONS** (*eight session options*)

Session 1

Location: Room 217A

A Study of Thymic Nurse Cell Function during T-Cell Development (Sponsored by the American Society for Cell Biology)

Thymic nurse cells (TNCs) are epithelial components that contain T cells enclosed in intracytoplasmic vacuoles. Little information about the function of TNCs has been reported; but they are believed to play a role in thymocyte development. In the past year, we have studied the role of TNCs during major histocompatibility complex (MHC) restriction by analyzing TNCs isolated from B6HY-TCRTransRag^{-/-} transgenic mice. The results, which we believe present a strong case for a functional role of thymic nurse cells during the process of MHC restriction, will be discussed in this session.

Speaker

Jerry Charles Guyden, Ph.D., City University of New York, New York, NY

Introducing Speaker

Sandra Murray, Ph.D., University of Pittsburgh School of Medicine, Pittsburgh, PA

Session 2

Location: Room 213D

Toxicity: Key Consideration for Drug Discovery and Development (Sponsored by the Society of Toxicology)

In this talk, the National Cancer Institute's Myrtle Davis discusses basic concepts of toxicology and the application of toxicology to drug development. The use of experimental results to form hypotheses about potential toxicity early in drug discovery will be a primary focus. Specific examples of hypothesis generation used to identify potential on-target toxicity and potential toxicology-related challenges of combining therapeutic agents will be described. Roles for drug targets in normal cell function and pathway mapping will also be presented as a method that can provide insight about biological pathways and regulatory events key to mechanisms of toxicity.

Speaker

Myrtle A. Davis, D.V.M., Ph.D., National Cancer Institute, National Institutes of Health, Bethesda, MD

Introducing Speaker

Jennifer Rayner, Ph.D., Oak Ridge National Laboratory, Oak Ridge, TN

Session 3

Location: Room 217D

HIV-Related Pulmonary Arterial Hypertension: Lessons from Non-Human Primate Models (Sponsored by the American Society for Microbiology)

Sonia Flores, a professor at the University of Colorado Denver, will address how a non-human primate model of infection with S(H)IV chimeric virions has been used to study the natural history of severe pulmonary vascular remodeling. The studies focus on the specific HIV protein nef and several mutations in its functional domains that may contribute to lung pathogenesis. Flores and colleagues are also testing the biological consequences of these mutations and how their presence in human populations may predict patients at risk of developing this disease.

Speaker

Sonia C. Flores, Ph.D., University of Colorado, Denver, CO

Introducing Speaker

Patricia Baynham, Ph.D., St. Edwards University, Austin, TX

Session 4

Location: Room 217B/217C

The Role of Doctor-Patient Relationships in Overcoming Healthcare Disparities

Lisa A. Cooper, a professor at The Johns Hopkins University, will discuss the roles of doctor-patient communication, racial concordance or matching between doctors and patients, and physician bias in understanding disparities or differences in healthcare. A conceptual model that relates patients' personal and financial barriers and structural dimensions of healthcare with healthcare processes and outcomes will be presented. Cooper will review her research, including descriptive studies and clinical trials testing interventions

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to eliminate health care disparities. The role of this work in informing clinical practice, education and training of health professionals, health care policy, and future health disparities research will be discussed.

Speaker

Lisa A. Cooper, M.D., M.P.H., F.A.C.P., *The Johns Hopkins University School of Medicine, Baltimore, MD*

Introducing Speaker

Cherrie B. Boyer, Ph.D., *University of California, San Francisco, CA*

Session 5

Location: Room 213B/213C

Zirconia and Hafnia Materials in Bioanalysis

Chemical analysis of complex biological samples can be a very challenging task that may require the fractionation of many components in a sample prior to identification and/or quantification. One aspect of the research efforts of Luis A. Colón, a professor at the University at Buffalo, explores the adsorptive characteristics of hafnia (HfO₂) and zirconia (ZrO₂) materials, developed in his laboratory, for the isolation/enrichment of phosphorylated peptides, which has direct impact in the analysis of complex samples in the field of phosphoproteomics. Monolithic structures of these materials can also provide enabling platforms for specific chromatographic applications. This lecture focuses on the synthesis, characterization, and potential applications of the monolithic materials of these metal oxides.

Speaker

Luis A. Colón, Ph.D., *University at Buffalo, Buffalo, NY*

Introducing Speaker

Joseph Skrivanek, Ph.D., *SUNY, Purchase College, Purchase, NY*

Session 6

Location: Room 213A

Biological Sensors of Oxygen

Marie-Alda Gilles-Gonzalez, a professor at UT Southwestern Medical Center, will discuss oxygen sensor proteins that control broad lifestyle changes in bacteria, including the switch to living in a biofilm or a eukaryotic host. The sensors to be discussed include those that govern *Escherichia coli* cyclic-di-GMP synthesis and degradation, rhizobial nitrogen fixation, and *Mycobacterium tuberculosis* latency.

Speaker

Marie-Alda Gilles-Gonzalez, Ph.D., *UT Southwestern Medical Center, Dallas, TX*

Introducing Speaker

Phillip Ortiz, Ph.D., *SUNY Empire State College, Saratoga Springs, NY*

Session 7

Location: Room 209/210

Mathematical Epidemiology with Applications: The Case of Influenza in Mexico

In a highly interconnected world, epidemic outbreaks become instant potential health and/or economic global threats, with increasing segments of the population playing active roles on the transmission patterns of infectious diseases. Travel, social distancing, and availability of medical supplies and diagnostic tools are some of the factors linked to the ongoing influenza patterns. We start with the work of the physicians-mathematicians Bernoulli, Ross, Kermack, and McKendrick, who developed the mathematical theory of infectious diseases. We use extensions of their models and theories to highlight what we learned from the H1N1 pandemic in the context of Mexico.

Speaker

Carlos Castillo-Chavez, Ph.D., *Mathematical and Computational Modeling Sciences Center, Arizona State University, Tempe, AZ*

Introducing Speaker

Rebecca Hubbard, Ph.D., *University of Washington, Seattle, WA*

Session 8

Location: Room 218/219

Food for Health: Connecting Genetic Diversity and Epigenetics to Improved Nutrition and Cancer Prevention

(Sponsored by the American Society of Plant Biologists)

Plant biology research is making fundamental contributions to our understanding of the basic biological principles underpinning improvements in human health and nutrition; to the sustainable development of better foods, fabrics, and building materials; and to fuel security and environmental stewardship. Join professors Eleanor Wurtzel (Lehman College, CUNY) and Ray Rodriguez

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(University of California, Davis) as they respectively explain how research on maize genetic diversity can improve efforts to combat global vitamin A deficiency and how detailed cellular and molecular studies of a dietary peptide from soy may lead to novel approaches to cancer prevention and treatment.

Speakers

Eleanor Wurtzel, Ph.D., Lehman College of CUNY, Bronx, NY

Raymond Rodriguez, Ph.D., University of California, Davis, Davis, CA

Introducing Speakers

Maria Elena Zavala, Ph.D., California State University, Northridge, CA

9:30 – 10:30 a.m.	PLENARY SCIENTIFIC SESSION Imaging the Glycome Changes in a cell's glycome are known to correlate with development and disease transformation. We are developing chemical tools for probing the changes in cell surface and protein glycosylation associated with these processes. Metabolic labeling with chemical reporters enables subsequent visualization of glycans using bioorthogonal reactions performed <i>in vitro</i> and in living animals. Applications to non-invasive imaging and cancer biomarker identification will be discussed. <i>Speaker</i> Carolyn Bertozzi, Ph.D. , Molecular Foundry, Lawrence Berkeley National Laboratory, and University of California, Berkeley, Berkeley, CA <i>Introducing Speaker</i> Marlene de la Cruz, Ph.D. , University of California, Irvine, CA	Location: Ballroom A/D
10:30 a.m. – 12:00 p.m.	Exhibits Open	Location: Exhibit Hall C
10:45 a.m. – 12:00 p.m.	POSTER SESSION 3 (C)	Location: Exhibit Hall C
11:00 a.m. – 12:00 p.m.	Career Coaching Corner Open/Meet and Greet Speakers	Location: Exhibit Hall C
12:15 – 1:00 p.m.	Networking Lunch	Location: Crown Ballroom (overflow in Ballroom C)
1:00 – 2:00 p.m.	LUNCHEON KEYNOTE ADDRESS Exceptional Opportunities for Biomedical Research Francis Collins, director of the National Institutes of Health, will share some of his own scientific research and more broadly discuss the National Institutes of Health, the global scientific and science education enterprise. <i>Speaker</i> Francis S. Collins, M.D., Ph.D. , National Institutes of Health, Bethesda, MD <i>Introducing Speaker</i> Sharon L. Milgram, Ph.D. , National Institutes of Health Office of Intramural Training & Education; National Heart, Lung, and Blood Institute; and National Human Genome Research Institute, Bethesda, MD	Location: Crown Ballroom (overflow in Ballroom C)
2:15 – 3:30 p.m.	Doctoral-Level Graduate Student Poster Session 2 and Postdoctoral Fellowship Recruitment Fair This session is a forum for doctoral-level graduate students to present posters and for graduate students and postdoctoral scientists to share experiences with each other. Any doctoral-level graduate student or postdoctoral scientist interested in securing a postdoctoral position or faculty position or networking with faculty and colleagues should attend. Postdoctoral fellowship program representatives should not miss this great recruitment opportunity!	Location: Ballroom B
2:15 – 3:30 p.m.	PROFESSIONAL DEVELOPMENT SESSIONS Session 1 Mentoring: An Enabling Relationship that Fosters Professional Growth and Development <i>(Mandatory for undergraduate, community college, and master's-level students)</i> This seminar introduces mentoring as a strategy for enhancing academic, career, personal, and professional development. It explores success stories in mentoring undergraduate and graduate students and describes mentorship models. It is structured to provide participants with (i) the philosophy and terminology of mentoring, (ii) the rationale for mentoring, (iii) mentoring roles and responsibilities, (iv) tips for forming an effective mentoring alliance, and (v) ways to use mentoring as a strategy for developing people.	Location: Ballroom A/D

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Students who are entering graduate study often assume that the relationship with their new advisor will be just like the one they had with their undergraduate advisor. The session points out the graduate advisor's roles and the warning signs of unethical relationships. Case studies and participant experiences will be used as tools to delve into intersection of mentoring. The speakers for this session are past recipients of the Presidential Awards for Excellence in Science, Mathematics, and Engineering Mentoring (PAESMEM) program. All serve as exemplars to their colleagues and leaders in the national effort to more fully develop the nation's human resources in science, mathematics, and engineering.

Speakers

Howard G. Adams, Ph.D. (1996 PAESMEM Awardee), *H.G. Adams and Associates, Norfolk, VA*

Carlos Gutiérrez, Ph.D., (1996 PAESMEM Awardee), *California State University, Los Angeles, CA*

Goldie Bryd, Ph.D., (2009 PAESMEM Awardee), *North Carolina A&T State University, Greensboro, NC*

Session Moderator

Maureen Wright, Ph.D., *U.S. Department of Agriculture, New Orleans, LA*

Session 2

Location: Room 208A/208B

NIH/NIGMS Grants Management Workshop

(Recommended for program directors and faculty)

This session covers (i) National Institute of General Medical Sciences/Minority Opportunities in Research updates, including current budget information; (ii) clarification of requirements for the use of human subjects; (iii) use of the "Streamlined Noncompeting Award Process" for applications; and (iv) areas of interest in the Minority Biomedical Research Support and Minority Access to Research Careers programs.

Speakers

Lori Burge, B.S.; Robert Altieri, M.P.A.; Justin Rosenzweig, M.P.A.; Michael Mace, M.A., *NIGMS, Grants Management Office, National Institute of General Medical Sciences, Bethesda, MD*

3:15 – 6:30 p.m.

Exhibits Open

Location: Exhibit Hall C

3:45 – 5:00 p.m.

POSTER SESSION 4 (D)

Location: Exhibit Hall C

5:15 – 6:30 p.m.

POSTER SESSION 5 (E)

Location: Exhibit Hall C

6:45 – 8:00 p.m.

CONCURRENT PROFESSIONAL DEVELOPMENT SESSIONS

(three session options)

Session 1

Location: Room 203A/203B

Strategies for Taking Standardized Admissions Tests: Preparing for the GRE and MCAT Exams

(Recommended for undergraduate students and master's level students)

This session focuses on test-taking strategies and provides valuable information about resources for preparing for standardized admissions tests, including the GRE and MCAT. It is important to note that this session is not intended to take the place of formal comprehensive workshops, such as courses offered by your institution and/or independent test preparation agencies.

Speaker

Gayle Slaughter, Ph.D., *Baylor School of Medicine, Houston, TX*

Session 2

Location: Room 208A/208B

Graduate School Application Process

Interviewing for Graduate School Admissions: Dos and Don'ts

(Recommended for undergraduate students and master's level students)

This half of the session provides potential graduate students with the information necessary to prepare and plan for the graduate school admissions process and to subsequently create and submit a competitive application packet. Part one briefly covers the undergraduate years — coursework, internships, and standardized tests. The process of selecting schools for application and subsequent matriculation will be discussed as well as the application process, with a focus on the admissions file. There will be a discussion of the application form and supporting documentation, with a special focus on the personal statement. Also covered are the interview process, financing graduate school, and succeeding in graduate school. The personal statement introduces the applicant to the school and its admissions committee; therefore, part two provides tips and strategies on writing a powerful personal statement for applications for graduate school and/or summer internships. In part three, strategies for financing your education will be discussed. At the end of this session, students should be prepared to put together outstanding application packets.

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This half of the session discusses tips and strategies for a successful graduate school interview. It reviews some interview pitfalls and how to overcome them and discusses how to make the most of visits to the schools in the context of selecting a school for matriculation.

Speakers

John Augusto, Ph.D., University of Kansas, Lawrence, KS

C. Gita Bosch, M.B.A., Ph.D., Gerstner Sloan Kettering Graduate School, New York, NY

Session 3

Location: Room 209/210

The Ins and Outs of Time between College and Graduate School — the Postbaccalaureate Experience

(Recommended for postbaccalaureates and undergraduate students considering postbaccalaureate training)

Many students decide to pursue postbaccalaureate training before moving on to graduate studies. This session addresses (i) courses and training to focus on during your postbaccalaureate experience and (ii) tips on how to present a strong graduate school application.

Speaker

Richard McGee, Ph.D., Northwestern University, Chicago, IL

7:30 – 9:00 p.m.

RECEPTION FOR EXHIBITORS, SPEAKERS, PROGRAM DIRECTORS, AND JUDGES

Location: Hilton Hotel - Grand Ballroom

This event is NOT open to undergraduates, postbaccalaureates, graduate students, or postdoctoral scientists.

7:45 p.m.

FREE TIME! FREE TIME!

9:00 – 10:15 p.m.

MARC/MBRS/RISE/SCORE Program Director Meeting

Location: Hilton Hotel - North Carolina Room

9:30 – 10:15 p.m.

BRIDGES Program Director Meeting

Location: Hilton Hotel - South Carolina Room



◀ Griffin Rodgers, Director of NIH/NIDDK presents at 2009 ABRCMS.

Saturday, November 13, 2010

7:00 a.m. – 12:00 p.m.	Registration Open	Location: Concourse C Foyer
7:00 – 8:00 a.m.	Networking Breakfast	Location: Crown Ballroom
7:30 – 8:00 a.m.	Open Forum for Feedback	Location: Crown Ballroom
8:15 – 9:15 a.m.	Exhibitor Feedback Session	Location: Main Exhibit Hall C
8:15 – 9:15 a.m.	ORAL PRESENTATION SESSIONS 11-20 (All Disciplines)	
	Oral Session 11: Biochemical Sciences	Location: Room 207 C/D
	O41 Regulation of SREBP-1 Transcription by iPLA ₂ ; <i>Iliana Ycute, California State University Dominguez Hills, CA</i>	
	O42 CB1 and D2 Receptors Knockdown in Rat Striatum using AAV10-EGFP-shRNA <i>Jasmine M. Richardson, Winston-Salem State University, Winston-Salem, NC</i>	
	O43 Exploring Wild-Type and Mutant <i>E. coli</i> Strains for the Synthesis of Site-Specific Labels to Study RNA Structure and Dynamics by NMR <i>Jacob N. Sama, University of Maryland, College Park, MD</i>	
	O44 Spatial Distribution of Metabolic Enzymes in Adult Mouse Retina; Implications in Vision Preservation <i>Elda M. Rueda, University of Houston Downtown, Houston, TX</i>	
	Session Moderator <i>Joseph Urban, Ph.D., Southern University of Shreveport, Shreveport, LA</i>	
	Oral Session 12: Cell Biological Sciences	Location: Room 217 D
	O45 Characterizing the Molecular Basis for Variation in Flower Color in a California Wild Flower (<i>Mimulus aurantiacus</i>) <i>Cristina Enrique, California State Polytechnic University, San Luis Obispo, CA</i>	
	O46 Role of Phosphoinositide 3-kinase (PI-3K) for Prostate Tumor Cell Proliferation <i>Jamilah Jenkins, Tuskegee University, Tuskegee, AL</i>	
	O47 Death-Receptor Signaling in Hematopoietic Stem Cells and Granulocyte-Macrophage Progenitors <i>Trit Garg, University of California, Berkeley, CA</i>	
	O48 Development of KSR1 Small Molecule Inhibitor for the Treatment of RAS-Dependent Tumors <i>Ab Rume (Julie) Park, University of Chicago, Chicago, IL</i>	
	Session Moderator <i>Jacob Varkey, Ph.D., Humboldt State University, Arcata, CA</i>	
	Oral Session 13: Chemical Sciences	Location: Room 213 A
	O49 Investigation of the Antiproliferative and Synergistic Effects of Botanical Therapies Used in the USVI <i>Dimitri A. Maduro, University of the Virgin Islands, St. Thomas, VI</i>	
	O50 A Disulfide Cross-linked Mesogel for the Thermal Insulation of a Hyperthermal Therapeutic for Cancer <i>A'Lester C. Allen, Stanford University, Stanford, CA</i>	
	O51 Extracting Textile Dyes from Contaminated Water using Soybean Hulls, Rice Hulls, and Highly Characterized Peats <i>Darcel Lancaster, Claflin University, Orangeburg, SC</i>	
	O52 MgO Composite Paints: Protecting Humans against Harmful Bacteria <i>David J. Zuniga, California State Polytechnic University, Pomona, CA</i>	
	Session Moderator <i>Brahmadeo Dewprashad, Ph.D., Borough of Manhattan Community College, New York, NY</i>	

Saturday, November 13, 2010

Oral Session 14: Developmental Biological Sciences

Location: Room 209/210

- O53** Endothelin Is Involved in the Development of the Murine Ventricular Cardiac Conduction System
Javier Pino, Florida International University, Miami, FL
- O54** Identification of a New Gene Required for Synapse Formation in the *Drosophila* Visual System
Letonia D. Copeland-Hardin, Howard University, Washington, DC
- O55** Investigation of Direct Mist1 Transcriptional Targets
Lydia A. Espinoza, University of Puerto Rico, Rio Piedras Campus, PR
- O56** IBA Resistance in Arabidopsis Thaliana: Map-Based Cloning of Genes Defective in HR Mutants
Victoria A. Hanna, University of California, Irvine, Irvine, CA

Session Moderator

DiAnna L. Hynds, Ph.D., Texas Women's University, Denton, TX

Oral Session 15: Microbiological Sciences

Location: Room 208 A/B

- O57** Heat Shock Protein 90 Inhibition in Murine Macrophages Prevents Chronic Alcohol-Induced TNF- α Production
Dominique R. Dotson, University of Maryland Eastern Shore, Baltimore, MD
- O58** Construction of Recombinant Antibodies to Isolate Cell-Free Varicella-Zoster Virus
Emily M. Eshleman, Cedar Crest College, Allentown, PA
- O59** Silencing the Call to Arms: Loss of the Drug Efflux Regulator MexL Severely Impairs Production of the *Pseudomonas aeruginosa* Quorum Signal PQS
James V. McCann, St. Edward's University, Austin, TX
- O60** NADPH Oxidase Is Necessary for Optimal Insulin Secretion
Christie A. Ojiaku, University of Florida, Gainesville, FL

Session Moderator

Patricia Baynham, Ph.D., St. Edward's University, Austin, TX

Oral Session 16: Molecular Biological Sciences

Location: Room 217 A

- O61** Identifying Candidate Aging Genes using *Caenorhabditis remanei* Strains Divergent for Longevity
Alecia B. Stewart-Malone, University of Wisconsin-Stevens Point, WI
- O62** Evolution of the Calcium Binding Protein *calb2* after Genome Duplication
Jackie D. Gorham, Grambling State University, Grambling, LA
- O63** Overexpression of p190B RhoGap, Alters Expression Levels of Mitotic Genes Involved with Chromosomal Instability
Camilo M. Mobar, Florida International University, Miami, FL
- O64** A Genetic Screen for Arf1 Mutants that Disrupt a Transport Pathway in *Saccharomyces cerevisiae*
Bertheleau M. Ngakam, Cornell University, Ithaca, NY

Session Moderator

Teresa Singleton, Ph.D., Winston-Salem State University, Winston-Salem, NC

Oral Session 17: Neuroscience

Location: Room 218/219

- O65** Fate of Cajal-Retzius Neurons in the Postnatal Mouse Neocortex
Jessica C. Jimenez, UCLA, Los Angeles, CA
- O66** Methamphetamine Self-Administration Is Associated with Changes in the Expression of Glutamate AMPA Receptors in the Rat Striatum
Rashalai A. Currington, University of Maryland Eastern Shore, Princess Anne, MD
- O67** Acute Changes in Activity of Signaling Proteins Following Early-Life Seizures
Raul J. Martinez, Stonehill College, Brockton, MA

Saturday, November 13, 2010

- O68** GABA Regulates Light-Induced Phase Shifts of the Circadian Clock
Colton A. Walker, Morehouse College, Atlanta, GA

Session Moderator

Stephanie Bingham, Ph.D., Barry University, Miami Shores, FL

Oral Session 18: Physical Sciences and Mathematics

Location: Room 213 B/C

- O69** Comparative Analyses of Osmotic Stress Response in Ascomycete Yeasts
Aurian García-González, University of Puerto Rico, Río Piedras, PR
- O70** Susceptibility of Biofilm Propagation by *Pseudomonas aeruginosa* and *Staphylococcus Epidermidis* on Titanium-Boron Prosthetic Biometals
Jessamine A. Quijano, California State Polytechnic University, Pomona, CA
- O71** Optimization of Agrobacterium-Mediated Genetic Transformation in Valeria (*Valeriana officinalis* L)
Katy Sanon, University of the Virgin Islands, St. Thomas, Virgin Islands
- O72** Statistical Model for the Analysis of European Starling Songs
Tram Ta, Florida International University, Miami, FL

Session Moderator

Rebecca Hubbard, Ph.D., University of Washington, Seattle, WA

Oral Session 19: Physiological Sciences

Location: Room 213 D

- O73** Photosynthetic and Polyphenolic Responses of Soybean to Abiotic Stress
Steven Le, Xavier University of Louisiana, New Orleans, LA
- O74** Neuroprotective Effects of Curcumin on the Dopaminergic SH-SY5Y Cell Line
Zakiya Qualls, Howard University, Washington, DC
- O75** Impaired Bioavailability of Nitric Oxide Due Uncoupling of Enos May Contribute to Hypertension in Male Inlgr Offspring
Lateia S. Taylor, Tougaloo College, Jackson, MS
- O76** Currying the Heart
Quentin Wilson, Tuskegee University, Tuskegee, AL

Session Moderator

Latanya Hammonds-Odie, Ph.D., Georgia Gwinnett College, Atlanta, GA

Oral Session 20: Social and Behavioral Sciences and Public Health

Location: Room 217 B/C

- O77** Orienting and Disengagement Mechanisms in Affect-Based Inhibition of Return
Helene Ramirez, Hunter College of CUNY, New York, NY
- O78** Gender Differences in Attitudes Toward Intimate Partner Violence: Does Context Matter?
Thomas E. Benjamin, Jr., Morehouse College, Atlanta, GA
- O79** The Parent-Adolescent Relationship and Obesity: Associations Between Parents' Control Strategies and Adolescents' Responsibility for Weight-Related Behaviors
Danielle D. Barton, Morgan State University, Baltimore, MD
- O80** Community Health Centers Have an Important Role in the Provision of STD Services: A Comparison of Chlamydia Screening Rates in Community Health Centers, Physician Offices, and Outpatient Clinics
Jeffrey M. Eugene, Hampton University, Hampton, VA

Session Moderator

Cherrie B. Boyer, Ph.D., University of California, San Francisco, CA

Final Program (continued)

Saturday, November 13, 2010

9:15 a.m. – 12:00 p.m.	Exhibits Open	Location: Exhibit Hall C
9:30 – 10:45 a.m.	POSTER SESSION 6 (F)	Location: Exhibit Hall C
10:45 a.m. – 12:00 p.m.	POSTER SESSION 7 (G)	Location: Exhibit Hall C
12:15 – 1:00 p.m.	Networking Lunch	Location: Crown Ballroom (overflow in Ballroom C)
1:00 – 2:00 p.m.	Luncheon Keynote Address An Afternoon with Maya Angelou <i>Speaker</i> <i>Maya Angelou, Numerous Honorary Degrees, Educator, Poet, Author, and Entertainer</i> <i>Introducing Speaker</i> <i>John Fitzgerald Gates, Ph.D., Criticality Management Consulting, New York, NY</i>	Location: Crown Ballroom (overflow in Ballroom C)
2:30 – 3:45 p.m.	CONCURRENT PROFESSIONAL DEVELOPMENT SESSIONS	
	Session 1 Graduate School Experience: My Personal Story <i>(Recommended for undergraduate, postbaccalaureate, and master's-level students)</i> Graduate students share their graduate school experiences. Discussions include goal setting, selecting a mentor, time management, conflict resolution, and balancing academics and social life. <i>Speakers</i> <i>Kanatokie Ford, Ph.D. candidate, Harvard University, Cambridge, MA</i> <i>Robert Drummond, M.D./Ph.D. candidate, Johns Hopkins University, Baltimore, MD</i> <i>Ilenys Diaz-Perez, Ph.D., North Carolina University, USDA Research Science Unit, Raleigh, NC</i> <i>Robert Thorpe, Ph.D., Johns Hopkins University, Baltimore, MD</i> <i>Session Moderators</i> <i>Beronda Montgomery, Ph.D., Michigan State University, East Lansing, MI</i>	Location: Room 217D
2:30 – 3:45 p.m.	Session 2 Getting Published: Advice for Graduate Students, Postdoctoral Scientists, and Junior Faculty <i>(Recommended for graduate students, postdoctoral scientists, and junior faculty)</i> Publishing your work is the key to expanding your success and influence. This session will help you choose a journal in which to publish, provide guidance as you prepare and submit your manuscript, and suggest ways to deal with requests for revision and cope with rejection; it also will explain the ethics of scholarly publishing, including authorship, multiple submissions and redundant publication. There will be time for questions. <i>Speakers</i> <i>Victor DiRita, Ph.D., University of Michigan Medical School, Ann Arbor, MI</i>	Location: Room 213A
2:30 – 5:00 p.m.	Vision and Change in Undergraduate Biology – A Call to Action and Discussion with Funders: What You Can Do and What Resources Are Available This is an exciting time to be a biologist. Science is changing radically, and so is what we know about teaching it, not to mention the resources available for both. This session will present findings and recommendations from two recent, seminal reports. One, <i>Vision and Change in Undergraduate Biology Education</i> , originates from the American Association for the Advancement of Science. The other, <i>A New Biology for the 21st Century: Ensuring the United States Leads the Coming Biology Revolution</i> , is from the National Academy of Sciences Research Council. Both reports present blueprints for change and call for a more integrated approach to education that capitalizes on advances within the science itself and existing effective practices. The findings and recommendations of the reports align well (i) with the concepts and competencies within biology called for by committees studying changes needed in approaches to AP biology and (ii) to AAMC committee recommendations for the preparation of future medical professionals. Presenters will include representatives of the Vision and Change advisory board, and the funding agencies that helped support these activities. The session format includes brief presentations and time for questions and discussion. A free copy of <i>A New Biology for the 21st Century</i> can be downloaded from www.nap.edu/catalog.php?record_id=12764 . This symposium is funded by a grant to the American Association for the Advancement of Science from the National Science Foundation under grant no. DUE-0923874.	Location: Room 208A/208B

Saturday, November 13, 2010

Speakers

Cynthia Bauerle, Ph.D., Precollege and Undergraduate Science Education Programs, Department of Science Education, Howard Hughes Medical Institute, Chevy Chase, MD

Shawn R. Drew, Ph.D., MARC Branch, Minority Opportunities in Research Division, National Institute of General Medical Sciences, National Institutes of Health, Bethesda, MD

Shiva P. Singh, Ph.D., MARC Branch, Minority Opportunities in Research Division Special Initiatives Branch, National Institute of General Medical Sciences, National Institutes of Health, Bethesda, MD

Terry Woodin, Ph.D., National Science Foundation, Directorate for Education and Human Resources, Division of Undergraduate Education, and Acting Executive Officer, Education and Human Resources, Arlington, VA

María Elena Zavala, Ph.D., California State University, Northridge, CA

Session Moderator

Yolanda George, Ph.D., Education and Human Resources Programs, American Association for the Advancement of Science

4:00 – 5:30 p.m.

CONCURRENT PROFESSIONAL DEVELOPMENT SESSIONS

Session 1

Location: Ballroom C

Speed Application – Conversations with Graduate Admissions Officers

(Recommended for undergraduate students)

This is a hands-on session about the graduate school application process. Participants will network with faculty in small groups to discuss components of their graduate school applications. Learn more about building a competitive application package; topics include (i) writing an insightful personal statement, (ii) informing referees about your future plans, (iii) prepping for interviews, and (iv) reflecting on your interview experiences.

Session Moderators

Alexandra (Sacha) Patera, Ph.D., Interdepartmental Biological Sciences (IBiS) Graduate Program Biophysics Training Grant Minority Outreach Coordinator, Northwestern University, Evanston, IL

Minnetta V. Gardinier, Ph.D., Associate Dean, Graduate College; Associate Professor of Pharmacology, University of Iowa, Iowa City, IA

Additional Faculty Facilitators to be Determined

Session 2

Location: Room 217B/217C

Writing a Successful Personal Statement for Graduate School Admission and/or Summer Programs — Getting into Highly Competitive Graduate Schools and Summer Programs

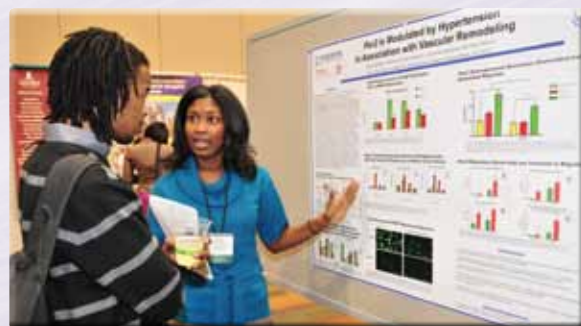
(Recommended for undergraduate, postbaccalaureate, and master's level students)

What are graduate programs in the sciences looking for in applicants? Find out in this session for grad-school-bound students. This program focuses on finding programs, using ranking systems smartly, getting better recommendations, selecting work samples, making that critical connection with potential mentors, writing awesome statements of purpose, and learning how to get full funding and go to school for free. The session offers useful tips on how to write powerful, effective statements for applications to graduate schools and/or summer programs. Get help from presenters who, during their careers, have written many personal statements, read thousands of submitted statements, and helped early-career students to write great statements. Bring a copy of a personal statement that you are working on.

Speaker

Joel Oppenheim, Ph.D., New York University, New York, NY

Victoria Freedman, Ph.D., Albert Einstein College of Medicine, New York, NY



Continued on next page

Saturday, November 13, 2010

- 4:00 – 5:30 p.m.** **Session 3** Location: Room 217A
Opportunities for a Successful Postdoctoral Experience
(Recommended for doctoral-level graduate students and postdoctoral scientists)
Discussion will focus on (i) setting goals, (ii) finding the right postdoctoral position, (iii) securing funding, and (iv) considering international postdoc positions. It also discusses many of the critical issues that students face when selecting postdoctoral positions, including funding, expected duration, racial and ethnic composition of the postdoctoral pool, health care and other benefits, job responsibilities, and career development activities.
- Session Moderator*
Jayne S. Reuben, Ph.D., Baylor College of Dentistry, Texas A&M University HSC, Dallas, TX
- Speakers*
Setting Goal and Finding the Right Postdoctoral Position
Jayne S. Reuben, Ph.D., Baylor College of Dentistry, Texas A&M University HSC, Dallas, TX
- Securing Funding**
Diane Adger-Johnson, B.S., Office of Special Populations and Research Training, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD
Victoria McGovern, Ph.D., Burroughs Wellcome Fund, Research Triangle Park, NC
- Exploring International Postdoc Positions**
Medeva Ghee, Ph.D., The Leadership Alliance, Providence, RI
-
- 5:30 - 6:30 p.m.** **PROFESSIONAL DEVELOPMENT SESSION** Location: Room 208A/208B
MARC T34/NIGMS T32 Program Directors “Meet and Greet” Gathering
(Recommended for MARC U-STAR students, MARC U-STAR program directors, and NIGMS T32 program directors)
Staff of the National Institute of General Medical Sciences/Minority Opportunities in Research (NIGMS/MORE) Division invite Minority Access to Research Careers (MARC) T34 and NIGMS predoctoral T32 program directors to join us at a “meet and greet” session at ABRCMS. Our goal is to promote stronger interactions between MARC undergraduate research training programs and NIGMS predoctoral T32 research training programs.
- Speakers*
Shawn R. Drew, Ph.D., MARC Branch, Minority Opportunities in Research Division, National Institute of General Medical Sciences, National Institutes of Health, Bethesda, MD
Adolphus P. Toliver, Ph.D., MARC Branch, Minority Opportunities in Research Division, National Institute of General Medical Sciences, National Institutes of Health, Bethesda, MD
Alison Cole, Ph.D., National Institute of General Medical Sciences, National Institutes of Health, Bethesda, MD
-
- 6:30 – 7:30 p.m.** **FREE TIME! FREE TIME! FREE TIME!**
-
- 7:30 – 9:30 p.m.** **BANQUET, CONFERENCE WRAP-UP, AND STUDENT PRESENTATION AWARDS CEREMONY** Location: Crown Ballroom
Conference Wrap-up
John Fitzgerald Gates, Ph.D., Criticality Management Consulting, New York, NY
Student Presentation Awards Ceremony
Concluding Remarks
Speaker
Clifford W. Houston, Ph.D., University of Texas Medical Center at Galveston, Galveston, TX
-
- 9:30 – 10:00 p.m.** **Photo Session for ABRCMS Presentation Award Winners** Location: Room 213A/213B/213C
-
- 9:30 p.m. – 1:00 a.m.** **Dance and Social (All Are Invited)** Location: Westin Hotel, Grand Ballroom



“
The conference was very well organized and executed. It was my 2nd time attending, and I found it to be more beneficial to my professional and academic development the 2nd time around. Everyone on the ABRCMS staff, as well as the participating graduate students and faculty, were very helpful and encouraging. This conference has fine-tuned my pathway in biomedical research, and I hope I can play a part and contribute to the conference in the near future. Thank you all on a job well done!”

2009 UNDERGRADUATE STUDENT



Mae Jemison interacting with students in the exhibit hall.

“
A program model that should be duplicated around the country to encourage students interested in math and science. Phenomenal program!”

2009 FACULTY PARTICIPANT



“Meet & Greet” session with speaker after presentation.

“
This was my first time attending the ABRCMS meeting, and it far exceeded my expectations. Superb resources and learning experiences for undergraduate students!”

2009 FACULTY PARTICIPANT

“
The conference was well organized in an excellent location (good layout) and enough time allowed for exhibiting. It was a great meeting.”

2009 EXHIBITOR



◀ Student presentation awardees with disciplinary society representatives.



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 11, 2:30 p.m. – 3:30 p.m.

Irene Pepperberg, Ph.D.

Harvard University, Cambridge, MA, and
Brandeis University, Waltham, MA

Session Title:

**In Search of King Solomon's Ring: Studies on
the Cognitive and Communicative Abilities of
Grey Parrots**

Neil deGrasse Tyson, Ph.D.

Hayden Planetarium, New York, NY

Session Title:

**The Dark Side of the Universe: Black Holes,
Dark Matter, Dark Energy**

Friday, November 12, 11:00 a.m. – Noon

Jerry Charles Guyden, Ph.D.

City College of New York, CUNY, New York, NY

Session Title:

**A Study of Thymic Nurse Cell Function during
T-Cell Development**

Marie-Alda Gilles-Gonzalez, Ph.D.

UT Southwestern Medical Center, Dallas, TX

Session Title:

Biological Sensors of Oxygen

Myrtle Davis, D.V.M., Ph.D.

National Cancer Institute, National Institutes of
Health, Bethesda, MD

Session Title:

**Toxicity: Key Consideration for Drug
Discovery and Development**

Carlos Castillo-Chavez, Ph.D.

Mathematical and Computational Modeling
Sciences Center, Arizona State University, Tempe,
AZ

Session Title:

**Mathematical Epidemiology with Applications:
The Case of Influenza in Mexico**

Sonia C. Flores, Ph.D.

University of Colorado Denver, Denver, CO

Session Title:

**HIV-Related Pulmonary Arterial Hypertension:
Lessons from Non-Human Primate Models**

Eleanore Wurtzel, Ph.D.

Lehman College of CUNY, Bronx, NY

Raymond Rodriguez, Ph.D.

University of California, Davis, Davis, CA

Session Title:

**Food for Health: Connecting Genetic Diversity
and Epigenetics to Improved Nutrition and
Cancer Prevention**

Lisa A. Cooper, M.D., M.P.H., F.A.C.P.

The Johns Hopkins University School of
Medicine, Baltimore, MD

Session Title:

**The Role of Doctor-Patient Relationships in
Overcoming Healthcare Disparities**

Carolyn Bertozzi, Ph.D.

Molecular Foundry, Lawrence Berkeley National
Laboratory, and University of California, Berkeley,
Berkeley, CA

Session Title:

Imaging the Glycome

Luis A. Colon, Ph.D.

University at Buffalo, Buffalo, NY

Session Title:

Zirconia and Hafnia Materials in Bioanalysis

Speaker Biographies

Conference Speakers

Howard G. Adams, Ph.D.

Howard G. Adams is president and founder of H. G. Adams & Associates, Inc., a consulting company that provides a full range of career, personal, and professional development services to educational, governmental, and industrial organizations. Adams served as executive director of the National Consortium for Graduate Degrees for Minorities in Engineering and Science, Inc. (the GEM program), headquartered at the University of Notre Dame. He has written extensively in the area of workforce development, student programs, mentorship program development, and program evaluation and has authored or coauthored more than 15 self-help guides and handbooks. Adams has received numerous awards and citations recognizing his work, including the Presidential Award for Excellence in Science, Mathematics, and Engineering Mentoring. In 1999, he was named a 20th Century Outstanding Educator by *Black Issues in Higher Education*. Before joining GEM, Adams was vice president for student affairs at Norfolk State University. Adams holds a bachelor's degree from Norfolk State University, a master's degree from Virginia State University, and a doctorate from Syracuse University.

Diane Adger-Johnson, B.S.

Diane Adger-Johnson serves as the Minority Health Program Manager in the Office of Special Populations and Research Training of the National Institute of Allergy and Infectious Diseases (NIAID). She is responsible for providing advice and guidance in areas that encompass minority health and health disparities research, policies on issues impacting minorities, research training, science education, and outreach coordination for the institute. Adger-Johnson joined NIAID in 1990 as a supervisor biologist in the Laboratory of Infectious Disease, Division of Intramural Research. Before her appointment at NIAID, she worked as a microbiologist at the United States Department of Agriculture, Agriculture Research Service, in the area of *Eimeria* coccidiosis vaccine development.

Robert Altieri, M.P.A.

Robert Altieri is a grants management specialist for the Center for Bioinformatics and Computational Biology (CBCB) and the Minority Opportunities in Research team of the National Institute of General Medical Sciences (NIGMS). Since joining NIGMS in 2005, Altieri has been responsible for the fiscal administration of a diverse portfolio of grants awarded through the various minority programs supported by the institute, as well as those awarded through CBCB. Before joining NIGMS, he worked as an investigative analysis specialist for U.S. Customs and Border Protection. Altieri holds a bachelor's degree in public management and a master's degree in public administration from Florida Atlantic University.

Maya Angelou, Numerous Honorary Degrees

Maya Angelou is hailed as one of the great voices of contemporary literature and as a remarkable Renaissance woman. As a poet, educator, and director, Angelou travels the world, spreading her legendary wisdom. Swaying and stirring when she moves, a mesmerizing vision of grace, Angelou captivates her audiences

lyrically with vigor, fire, and perception. She has a unique ability to shatter the opaque prisms of race and class between reader and subject through her books of poetry and autobiographies. Angelou has authored 11 best-selling books, including *I Know Why the Caged Bird Sings* and her current best-seller *Wouldn't Take Nothing for My Journey Now*. In 1981, she was appointed to a lifetime position as the first Reynolds Professor of American Studies at Wake Forest University. In January 1993, Angelou became the second poet in U.S. history to have the honor of writing and reciting original work for the presidential inauguration. Her poem for the Clinton inauguration, "On The Pulse of Morning," earned a 1994 Grammy award (best spoken word performance).

John Augusto, Ph.D.

John Augusto is assistant dean in the Office of Research and Graduate Studies at the University of Kansas, overseeing the graduate application processing center for the main campus. He has more than 15 years of experience with graduate admissions. Augusto authored a study with the Educational Testing Service and the National Association of Graduate Admissions Professionals on student use of the Internet in selecting graduate programs.

Joseph Barbieri, Ph.D.

Joseph Barbieri is director of the Medical Scientist Training Program at the Medical College of Wisconsin (M.D.-Ph.D.). He joined the faculty at College in the Department of Microbiology and Molecular Genetics in 1986. Barbieri studies the mode of bacterial toxin action, addressing the mechanisms that make these toxins lethal for the host. With translational studies to develop vaccines and diagnostics against bacterial pathogens, his research addresses how toxins recognize their substrates and how toxins enter host cells. Barbieri has served as an editor for the American Society for Microbiology and trained four M.D.-Ph.D. students. In addition, he serves on the American Association of Medical Colleges M.D.-Ph.D. Section Communications Committee. Barbieri holds a doctorate in microbiology from the University of Massachusetts at Amherst and was a postdoctoral fellow at University of California, Los Angeles, and Harvard Medical School.

Cynthia Bauerle, Ph.D.

Cynthia Bauerle is Senior Program Officer in Precollege and Undergraduate Science Education at Howard Hughes Medical Institute (HHMI). Bauerle manages the HHMI Professors Program, which provides competitive awards to top research scientists to conduct projects in science education. She is a molecular biologist by training whose research has focused on cellular homeostasis and enzyme assembly in yeast. Bauerle has held faculty appointments at several primarily undergraduate-serving institutions and has 20 years of experience in science education reform and curriculum development. Bauerle served on the science faculty at Hamline University from 1992 to 2005. She was awarded a Fulbright Senior Scholarship for her sabbatical project consulting for a national biotechnology training program at the University of Dar es Salaam in Tanzania. Most recently, she served as biology chair at Spelman College, where she also directed the college's HHMI Undergraduate Science Education program. Bauerle earned

her undergraduate degree in biology from the University of Virginia and her doctorate in molecular biology from the University of Wisconsin-Madison.

Jeremy M. Berg, Ph.D.

Jeremy M. Berg is director of the National Institute of General Medical Sciences (NIGMS), which supports numerous research grants as well as a substantial amount of research training and programs designed to increase the number of minority biomedical scientists. Before joining the NIGMS, Berg directed the Institute for Basic Biomedical Sciences at The Johns Hopkins University, where he also served as professor and director of the Department of Biophysics and Biophysical Chemistry. In addition, he directed the university's Markey Center for Macromolecular Structure and Function and codirected the W.M. Keck Center for the Rational Design of Biologically Active Molecules. Berg's research focuses on the structural and functional roles that metal ions, especially zinc, have in proteins. He has made major contributions to understanding how zinc-containing proteins bind to DNA or RNA and regulate gene activity. His honors include a Presidential Young Investigator Award and the Eli Lilly Award for Fundamental Research in Biological Chemistry. Berg holds bachelor's and master's degrees in chemistry from Stanford University and a doctorate in chemistry from Harvard University. He is a coauthor of more than 130 research papers and three textbooks, *Principles of Bioinorganic Chemistry*, *Biochemistry* (5th and 6th editions), and *A Clinical Companion to Accompany Biochemistry*.

Carolyn Bertozzi, Ph.D.

Carolyn Bertozzi is the T.Z. and Irmgard Chu Distinguished Professor of Chemistry and Professor of Molecular and Cell Biology at the University of California, Berkeley (UC Berkeley), an investigator of the Howard Hughes Medical Institute, and director of the Molecular Foundry. She holds an undergraduate degree in chemistry from Harvard University and a doctorate in chemistry from UC Berkeley. After postdoctoral work in the field of cellular immunology at UC San Francisco, Bertozzi joined the UC Berkeley faculty in 1996. Her research interests include chemistry and biology with an emphasis on studies of cell surface glycosylation pertinent to disease states. Her lab focuses on profiling changes in cell surface glycosylation associated with cancer, inflammation, and bacterial infection, and exploiting this information for the development of diagnostic and therapeutic approaches. Bertozzi is an elected member of the National Academy of Sciences, the American Academy of Arts and Sciences, and the German Academy of Sciences Leopoldina. Her honors include the Whistler Award, the Ernst Schering Prize, a MacArthur Foundation Fellowship, and the Presidential Early Career Award in Science and Engineering.

C. Gita Bosch, M.B.A./Ph.D.

C. Gita Bosch is Associate Dean of the Memorial Sloan-Kettering (MSK) Graduate School of Biomedical Sciences and Associate Director of Graduate Studies at the Sloan-Kettering Institute, Memorial Sloan-Kettering Cancer Center. At MSK, she is responsible for all graduate and undergraduate education and training programs. Before joining MSK, Bosch was Associate Dean at the Graduate School of Biological Sciences, Mount Sinai

School of Medicine. Previously, she was a research assistant in the Departments of Biochemistry and Orthopedics at Mount Sinai School of Medicine. Bosch was also involved in HIV research for several years with the New York City Department of Health.

Lawrence (Skip) Brass, M.D., Ph.D.

Lawrence Brass is a graduate of Harvard College and Case Western Reserve University, where received his medical and doctoral degrees in biochemistry. After residency training in internal medicine he became a fellow in hematology-oncology at the University of Pennsylvania (Penn). There he served as vice chair for research in the Department of Medicine from 2004 to 2007 and is currently professor of medicine and pharmacology. Brass became associate dean and director of Penn's Medical Scientist Training Program in 1998. He has been active at the national level in the development of training programs for physician-scientists and has served as President of the National Association of M.D.-Ph.D. Programs and chair of the American Association of Medical Colleges GREAT group section on M.D.-Ph.D. training. Brass is also a practicing hematologist whose research interests are in the fields of hemostasis and vascular biology, has been elected to membership in the American Society for Clinical Investigation and the Association of American Physicians, and was an Established Investigator of the American Heart Association. His honors include the Christian R. and Mary F. Lindback Award for Distinguished Teaching from the University of Pennsylvania and (to his greatest satisfaction) numerous teaching awards from Penn medical students.

Lori Burge, B.S.

Lori Burge is a senior grants management specialist for the Center for Bioinformatics and Computational Biology and the Minority Opportunities in Research team of the National Institute of General Medical Sciences (NIGMS). Burge joined the grants management team of NIGMS in 2002, and as a senior specialist, she is responsible for a diverse portfolio of grant awards and has signatory authority to release National Institutes of Health research grant awards. Before joining NIGMS, Burge was an accountant with the U.S. Department of Health and Human Services. Burge holds a bachelor's degree in accounting from the University of Maryland.

Goldie Byrd, Ph.D.

Goldie Byrd is the Nathan F. Simms Endowed Distinguished Professor Biology at North Carolina A&T State University (NC A&T). She conducts research in the genetics of Alzheimer's disease in African Americans and was the first female chairperson of biology at NC A&T. For more than two decades, Byrd has been actively involved in research training and mentoring students in the biomedical sciences. She has developed new courses, bridge programs, Saturday academies, and summer research programs for science students at the middle school through college levels. Bird has been instrumental in conducting research, developing new research curricula, and advancing minority students toward doctoral degrees. She serves several organizations and boards that support the sciences, including the North Carolina Board of Science and Technology, the Board of Directors for the North Carolina Biotechnology Center, and the Board of Trustees for Peace

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College. She also serves on study sections and review panels for the National Institutes of Health, the National Science Foundation, the Alzheimer's Association, and the North Carolina Biotechnology Center. Her honors include the Award for Teaching Excellence from the University of North Carolina Board of Governors, the Presidential Award for Excellence in Science Mathematics and Engineering Mentoring, and induction into the National Black College Alumni Hall of Fame. She holds bachelor degrees in professional biology and biology education from NC A&T and a doctorate in microbial genetics from Meharry Medical College.

Carlos Castillo-Chavez, Ph.D.

Carlos Castillo-Chavez is a Regents and a Joaquin Bustoz Jr. Professor at Arizona State University. He is the founding director of the Mathematical, Computational and Modeling Sciences Center and has co-authored nearly 200 publications. His honors include a Presidential Faculty Fellowship Award and a Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring, the SACNAS Distinguished Scientist Award, the AAAS Mentor award, and the American Mathematical Society Distinguished Public Service Award. Castillo-Chavez is a fellow of the American Association for the Advancement of Science and the Society for Industrial and Applied Mathematics.

Agustin Chikas, Ph.D.

Agustin Chikas is a postdoctoral fellow at Cold Spring Harbor Laboratory, working in Scott Lowe's laboratory studying the role of tumor suppressor pathways and epigenetic modifiers in cellular senescence. Chikas began his scientific career at the University of the District of Columbia, from where he obtained a bachelor's degree in biology. During that period, he did summer undergraduate research at Hunter College, CUNY, and this experience motivated him to apply to graduate school. He obtained a doctorate in molecular and cellular biology from Hunter College, working in the laboratory of Jill Bargonetti on the DNA binding and *trans*-activation properties of wild-type and mutants of the tumor suppressor gene p53. After his obtaining his doctorate, he went to Rome, Italy, where he studied the role of the RNAi machinery in directing the modification of histone tails.

Alison Cole, Ph.D.

Alison Cole is a program director in the Division of Pharmacology, Physiology, and Biological Chemistry at the National Institutes of Health (NIH) National Institute of General Medical Sciences (NIGMS). Prior to joining NIGMS, she was a research assistant professor in the department of neurology at Johns Hopkins University. Cole conducted postdoctoral research at the University of California, San Francisco, and was a Pharmacology Research Associate Training program fellow at the National Institute of Neurological Disorders and Stroke, NIH. At NIGMS, Cole administers research and training grants in anesthesiology as well as training grants on systems and integrative biology. In addition, she serves as NIGMS' acting assistant director for research training. Cole holds a bachelor's degree in zoology from the University of Massachusetts and a doctorate in pharmacology from the University of Texas Medical Branch.

Francis S. Collins, M.D., Ph.D.

Francis S. Collins is director of the National Institutes of Health (NIH). A physician-geneticist, Collins is noted for his discoveries of disease genes, leadership of the Human Genome Project, and direction of the NIH National Human Genome Research Institute from 1993 to 2008. The Human Genome Project culminated in April 2003 with the completion of a finished sequence of the human DNA instruction book. In March 2010, Collins was named a corecipient of the Albany Medical Center Prize in Medicine and Biomedical Research for his role in this effort. His research laboratory has discovered a number of important genes, including those responsible for cystic fibrosis, Huntington's disease, and type 2 diabetes. He has a longstanding interest in the interface between science and faith and has written about this in *The Language of God: A Scientist Presents Evidence for Belief*. Collins also authored *The Language of Life: DNA and the Revolution in Personalized Medicine*. He holds a bachelor's degree in chemistry from the University of Virginia, a doctorate in physical chemistry from Yale University, and a medical degree from the University of North Carolina at Chapel Hill. His honors include the Presidential Medal of Freedom and the National Medal of Science, the highest honor bestowed on scientists by the U.S. government.

Luis A. Colón, Ph.D.

Luis A. Colón is professor and chair of the Department of Chemistry at SUNY Buffalo. He conducted his postdoctoral studies at Stanford University. He has mentored 19 doctoral and 10 master's-degree students. Colón holds eight U.S. patents and has more than 75 research-related publications under his belt. He is a member of various professional associations, including the American Association for the Advancement of Sciences (AAAS) and the American Chemical Society (ACS). Colón is a fellow of the Royal Society of Chemistry. His honors include an AAAS Mentor Award and an ACS Stanley C. Israel Regional Award for Advancing Diversity in the Chemical Sciences. He holds a bachelor's degree in chemistry from the University of Puerto Rico, Cayey, and a doctorate in analytical chemistry from the University of Massachusetts Lowell.

Lisa A. Cooper, M.D., MPH, FACP

Lisa A. Cooper is a professor of medicine at The Johns Hopkins University School of Medicine. Cooper is an internal medicine physician with training in public health. She studies patient attitudinal barriers to care (e.g., mistrust) and mechanisms for racial disparities in healthcare quality (e.g., doctor-patient communication, racial matching between doctors and patients, physician bias, and cultural competence). She has also led clinical trials that test interventions to improve patient outcomes and overcome disparities in care. She directs a multidisciplinary research center at Johns Hopkins that tests interventions to eliminate disparities in cardiovascular disease.

Myrtle A. Davis, DVM, Ph.D.

Myrtle A. Davis is Branch Chief for Toxicology and Pharmacology in the Developmental Therapeutics Program (DTP) of the Division of Cancer Diagnostics and Treatment of the National Cancer Institute, National Institutes of Health. Her responsibilities include serving as the toxicology expert for project and program teams in

drug discovery through first human dose, providing mechanistic toxicology expertise, creating and leading major research initiatives within DTP, and managing the daily operations of the Toxicology and Pharmacology Branch. Davis came to NIH from Lilly Research Labs (Eli Lilly and Co.), where she held the position of research advisor in the investigative toxicology group. At Eli Lilly, she established cross-functional partnerships to achieve an early, data-driven focus on safety in the development of kinase inhibitors as therapeutic agents. She also established a signal transduction laboratory and implemented strategies for pathway analysis. Davis has been an associate professor in the pathology department of the University of Maryland, where she had an active research program exploring mechanisms of toxicant-induced apoptosis and the role of protein phosphorylation. She holds a doctorate in toxicology from the University of Illinois Champaign-Urbana and completed a postdoctoral fellowship in toxicologic pathology at the University of Maryland. She completed undergraduate work in chemistry and obtained her veterinary medicine degree from Tuskegee University.

Shawn R. Drew, Ph.D.

Shawn R. Drew is a program director at the National Institute of General Medical Sciences at the National Institutes of Health (NIH) where she manages research and research training programs aimed at increasing the number of historically underrepresented populations for leadership positions in science. Drew also manages the Biostatistics T32 training grants and the R01 research grants from the Biostatistical Methods and Research Design study section. Before her current position, Drew was director of the NIH Academy, an intramural postbaccalaureate research training program. She holds a bachelor's degree in chemistry from Spelman College and her doctorate in biology from Howard University, where she conducted her doctoral dissertation research and postdoctoral work at the National Institute of Diabetes and Digestion and Kidney Diseases, NIH.

Robert J. Drummond, B.S.

Robert J. Drummond is a 9th-year M.D./Ph.D. candidate at the Johns Hopkins University School of Medicine. He is a graduate of Morehouse College, where he majored in biology and was inducted into Phi Beta Kappa academic honor society. At Morehouse, Drummond was a MARC/USTAR scholar and conducted research at the Morehouse School of Medicine, Yale University School of Medicine (BioSTEP), and the National Institutes of Health National Heart Lung and Blood Institute. While at Johns Hopkins, Drummond has served as a student recruiter for the M.D./Ph.D. program, a chapter member and officer in the Student National Medical Association, a founding and executive board member for the Thomas J. Blocker Society for Health Professionals, and a counselor for several Baltimore community programs. His honors include the Johns Hopkins Diversity Leadership Award, the Henry Strong Denison Research Award, and a travel award to present his thesis research at the Karolinska Institute in Stockholm, Sweden. Drummond recently completed his doctoral thesis under the mentorship of Antonio De Maio. After completion of his M.D./Ph.D., he plans to pursue a combined medicine-pediatrics residency and a career in academic medicine in the area of hematology/oncology, with a focus on sickle cell disease.

Sonia C. Flores, Ph.D.

Sonia C. Flores is a professor in the Department of Medicine, Division of Pulmonary Sciences and Critical Care Medicine and Microbiology, at the University of Colorado, Denver (UCD). She also directs the Graduate Training for Multicultural Students Summer Internship Program at UCD. Flores holds a bachelor's degree in biology from the University of Puerto Rico, Mayaguez, and a doctorate in biochemistry from the University of South Alabama. She was a postdoctoral fellow at UCD. Flores has been a member of numerous associations and committees, including the National Institute of General Medical Sciences Minority Biomedical Research Support Review Subcommittee and the American Society for Biochemistry and Molecular Biology Minority Action Committee. Her honors include an NIH National Research Service Award award, a New Investigator Award from the editors of *Free Radical Biology & Medicine* journal, an NIH Research Career Development Award for Minority Faculty, and a Teaching and Research Award from UCD.

Knatokie Ford, M.S.

Knatokie Ford works in the laboratory of Patricia D'Amore at the Schepens Eye Research Institute, where she is studying the role of vascular endothelial growth factor in the retinal pigment epithelium. Ford holds bachelor's and master's degrees in chemistry from Clark Atlanta University. She began her graduate work in the Biological and Biomedical Sciences Program at Harvard Medical School and later took a leave of absence to re-evaluate her life goals. During her leave, Ford worked as a substitute teacher in the Los Angeles Unified School District, which spurred a passion for academic empowerment of minority youth. Feeling reinvigorated, she returned to graduate school in 2006, and upon completion of her doctorate, Ford plans to work in science policy and education.

Victoria H. Freedman, Ph.D.

Victoria H. Freedman is assistant dean for graduate studies at the Albert Einstein College of Medicine, overseeing all aspects of graduate training, including recruitment, admissions, curriculum and academic affairs, career development, and alumni tracking. She also directs the Summer Undergraduate Research Program and is developing a high school science intensive. Freedman was the recipient of a Helen Hay Whitney Postdoctoral Fellowship at The Rockefeller University, where she conducted research in tumor immunology and then moved on to studying the cellular immune response to tuberculosis infection. Her long-standing interest in graduate education and graduate student training brought her to the position she holds today. Freedman holds a doctorate from the Albert Einstein College of Medicine.

Sharon Fries-Britt, Ph.D.

Sharon Fries-Britt is an associate professor in the College of Education at the University of Maryland, College Park. In 1998-1999, Fries-Britt was a visiting professor at the Harvard Graduate School of Education. Her research and practice in higher education focuses on race, equity, and diversity. Fries-Britt is particularly interested in the experiences of high-ability black collegians and their interactions with faculty, peers, and the extended black

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community. She was co-PI on a grant funded by the Lumina Foundation to study race, equity, and diversity in the 23 southern and border states. Fries-Britt is a consultant and research associate for the National Society of Black Physicists, exploring patterns of success. Before her academic appointments, for nearly ten years she was Assistant to the Vice President for Student Affairs at the University of Maryland, College Park. Fries-Britt has been an independent consultant for more than 20 years and has developed and implemented innovative training programs in the area of racial sensitivity for professional organizations in and outside higher education. She has served as a consultant on these issues for the U.S. Office of Personnel Management since 1992 and has worked with numerous colleges and universities and national organizations.

Juliet V. García, Ph.D.

Juliet V. García became president of The University of Texas at Brownsville (UTB) in 1992 after serving as president of Texas Southmost College (TSC) for six years. At TSC, she was recognized as the first Mexican-American woman in the nation to become president of a college or university. García led the development of a unique partnership between UTB, then an upper-level university, with TSC, a community college. Her honors include a National Network of Hispanic Women Hall of Fame Education Award, an American Association of Higher Education Hispanic Caucus Award, and the first-ever VIDA Award from NBC and *Hispanic Magazine*. Additionally she is one of *Hispanic Business* magazine's 100 Most Influential Hispanics. García has chaired the American Council on Education, the nation's foremost educational policy organization, representing members of 1,800 colleges and universities. She is vice chair of the Carnegie Foundation for the Advancement of Teaching. García holds a doctorate in communication and linguistics from The University of Texas at Austin and master's and bachelor's degrees in speech and English, respectively, from The University of Houston. Her postdoctoral studies include work at the Institute for Educational Management and the JFK School of Government at Harvard, MIT, and the London School of Business as a member of the Society for International Business Fellows program.

Minnetta Gardinier, Ph.D.

Minnetta Gardinier is the Associate Dean for Graduate Recruitment and Professional Development in the Graduate College at the University of Iowa. She holds a doctorate in biochemistry and molecular biology from Louisiana State University Medical Center. Gardinier conducted postdoctoral research at the Centre Hospitalier Universitaire Vaudois in Lausanne, Switzerland. Her research interests are in the areas of central nervous system myelination and molecular neurobiology. She is also an associate professor of pharmacology and the program director for the Molecular and Cellular Biology Training Program (funded by the National Institute of General Medical Sciences). Gardinier oversees the Office of Graduate Ethnic Inclusion, directs the Professional Development Seminar Series and the Principles of Scholarly Integrity course, and interfaces with the Women in Science and Engineering and the Iowa Biosciences Advantage programs. She also directs of the University of Iowa McNair Scholars Program. Gardinier is committed to partnering with

departments and programs to promote efforts that foster student success and greater inclusivity across our classrooms and research laboratories.

John Fitzgerald Gates, Ph.D.

John Fitzgerald Gates is a co-founder of Criticality Consulting Management Group. Before holding this position, he served as Associate Dean for Administration and Finance at Harvard College (the undergraduate division of Harvard University) and previously he was Special Assistant to the President and the Provost and Lecturer of Higher Education at the University of Vermont (UVM). At UVM, Gates advised the executive leadership, oversaw the Diversity and Equity Unit and university events, participated on the master planning counsel, and represented the university to the public. For nearly a decade prior, Gates served New York University (NYU) in numerous capacities, including as Executive Director of Global Operations with oversight of NYU campuses in Great Britain, Italy, the Czech Republic, and Argentina. He has also served NYU as Assistant Provost, Associate Director of the Africana Studies Program and the Institute of African-American Affairs, and Associate Director of the Faculty Resource Network. He is a fellow of the British-American Project and has served on numerous organizational boards. Gates holds a bachelor's degree in English from Morehouse College and a master's degree in higher education administration from NYU and a doctorate degree in organizational leadership at the University of London.

Mekbib Gameda, B.S.

Mekbib Gameda is the Assistant Dean for Diversity Affairs and Community Health and the Director of the Center for the Health of the African Diaspora at New York University (NYU) School of Medicine. As cochair of the Dean's Council on Institutional Diversity and head of the Office of Diversity Affairs, he has been responsible for developing programs and initiatives to increase diversity among students, residents, faculty, and the leadership and for developing pipeline programs. Gameda also leads initiatives to expand cultural competency education across the medical center and to integrate community health and health disparities education and research in the core medical school curriculum. He has more than a decade of experience in national and local efforts to reduce health disparities and increase diversity in the biomedical workforce. Before joining NYU, Gameda was involved in developing a robust biomedical research center supported by the National Institutes of Health and a nationally recognized faculty and graduate student recruitment and retention program at Hunter College, CUNY. He was also involved in developing the largest online, national network of minorities in science, justgarciahill.org.

Yolanda S. George, M.S.

Yolanda S. George is Deputy Director and Program Director, Education and Human Resources Programs, American Association for the Advancement of Science (AAAS). Her responsibilities include planning, development, management, implementation, and evaluation of multi-year science, mathematics, and technology (SMT) education and educational research projects. She has served as Director of Development, Association of Science-Technology Centers; Director, Professional Development Program,

University of California, Berkeley; and research biologist, Lawrence Livermore Laboratory. George conducts evaluations, project and program reviews, and workshops for both the National Institutes of Health and National Science Foundation and reviews SMT proposals for private foundation and public agencies. She develops and coordinates conferences and workshops related to SMT undergraduate reform and recruitment and retention of minorities, women, and persons with disabilities in SMT. George is the lead AAAS staff person for the L'Oreal USA Fellowships for Women in Science Program and the David and Lucile Packard Foundation HBCU Graduate Scholars Program. George serves on numerous boards and committees, including the International Network of Women Scientists and Engineers, American Institute of Biological Sciences Education Committee, and McNeil/Lehrer Productions Online Science Reports Advisory Committee. George has authored or co-authored more than 50 papers, pamphlets, and hands-on science manuals. She received her bachelor's and master's degrees from Xavier University of Louisiana and Atlanta University in Georgia, respectively.

Medeva Ghee, Ph.D.

Medeva Ghee is acting executive director of the Leadership Alliance. She joined the Alliance as assistant director in 2006 and in 2008 became associate director and also manager of the executive office staff. Her postdoctoral research was conducted in Paris, France, at l'Hopital de la Pitie Salpetriere, where she used biochemical and gene therapy technologies to investigate the impact of protein aggregation in Parkinson's disease. In 2005, Ghee worked with the William J. Clinton Foundation as a laboratory systems specialist for the HIV/AIDS Initiative. In this capacity, she provided technical assistance and strategic advice on the development of laboratory plans and systems to support national HIV/AIDS prevention, care, and treatment programs in the initiative's partner countries in Sub-Saharan Africa. Ghee holds a bachelor's degree in zoology from North Carolina State University and a master's degree and doctorate in microbiology from the New York University School of Medicine.

Maria Alda Gilles-Gonzalez, Ph.D.

Gilles-Gonzalez was born in Jeremie, Haiti. She came to the United States in her early teens, initially living in the Bedford-Stuyvesant section of Brooklyn, NY, and later obtaining her bachelor's degree in biochemistry from the State University of New York at Stony Brook. For her doctorate, she attended the Massachusetts Institute of Technology, where she examined structure-function relationships in the proton-pumping membrane protein bacteriorhodopsin under the direction of Nobel laureate Gobind Khorana. She is responsible for identifying the first known direct sensor of molecular oxygen, a protein kinase called FixL. Since this discovery, Gilles-Gonzalez has focused her research on the mechanisms by which living organisms respond to physiological gases. During a postdoctoral fellowship with the Nobel laureate Max Perutz at the MRC Laboratory of Molecular Biology in Cambridge (United Kingdom), she began to study the properties of a heme cofactor present in these sensors. In her own laboratory, initially at the Ohio State University, and now

at the UT Southwestern Medical Center at Dallas Biochemistry Department, she and her colleagues showed that there exists a large family of sensors related to FixL in *Bacteria*, *Archaea*, and *Eukarya*. Her research has expanded to examine several representative sensors, with the aim of unraveling their regulatory mechanisms and physiological functions.

Ruth Gotian, M.S.

Ruth Gotian was born in Israel and raised in New York and is bilingual in Hebrew and English. She received her bachelor's and master's degrees in business management from Stony Brook University. After two years as an investment banker, Gotian realized that she missed working with students, something she always did in college and graduate school. In 1996, Gotian joined the Weill Cornell/Rockefeller/Sloan-Kettering Tri-Institutional M.D.-Ph.D. Program in New York City and has served as its administrative director ever since. Since joining the program, she has seen its size increase by nearly 25% and the number of applications to the program increase by more than 30%. In addition, the number of underrepresented minority students in the program has doubled and is now one of the highest in the country. Gotian also oversees the Gateways to the Laboratory Summer Program, a unique summer program for college freshman and sophomores of underrepresented minority/disadvantaged backgrounds who wish to pursue M.D.-Ph.D. degrees. This first-of-its-kind program has given Gotian the opportunity to speak about minority recruitment at conferences and meetings across the country. Recently, Gotian was asked to advise program directors from Belgium and South Korea who are seeking to establish M.D.-Ph.D. programs in their countries.

Carlos G. Gutiérrez, Ph.D.

Carlos G. Gutiérrez is the University President's Distinguished Professor of Chemistry at California State University, Los Angeles (Cal State LA). He and his students design and synthesize small molecules to probe the details of iron acquisition and transport in bacteria. Gutiérrez has administered MARC and RISE research training programs that develop the talents of minority students and send approximately 20 to 25 of them to the nation's top Ph.D. programs each year. Many of the students have earned doctorates and are in independent research careers in academia and industry. Gutiérrez is a fellow of the American Association for the Advancement of Science (AAAS). His honors include the Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring, the 2001 American Chemical Society Award for Encouraging Disadvantaged Students into Careers in the Chemical Sciences, and the 2004 AAAS Lifetime Mentor Award. In 2005, he was named U.S. Professor of the Year by the Carnegie Foundation for the Advancement of Teaching. Gutiérrez grew up in Los Angeles and was educated in its public schools. He holds a bachelor's degree from University of California, Los Angeles, and a doctorate in chemistry from the University of California, Davis.

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Jerry Charles Guyden, Ph.D.

Jerry Charles Guyden is a professor of biology and director of the Research Centers in Minority Institutions (RCMI) program at the City College of New York (CCNY). Over the last 25 years at CCNY, RCMI has received NIH grants totaling more than \$44 million, a testament to Guyden's leadership and commitment to the mission of the organization. He has personally trained about 70 students, including undergraduates, graduates, and postdoctoral fellows, who have gone on to become very successful professionals in their own right. Guyden holds bachelor and master's degrees from North Texas State University and a doctorate from the University of California, Berkeley. He earned his doctorate under the guidance of G. Steven Martin, the scientist whose work led to the discovery of oncogenes. One of Guyden's many scientific achievements is the development of a unique technology and research area that has made him a world authority on the study of thymic nurse cells. He has published many peer-reviewed articles on the subject, most recently in the *Journal of Cellular Immunology*.

Clifford W. Houston, Ph.D.

Clifford W. Houston is a tenured professor at the University of Texas Medical Branch (UTMB), where he is also the Associate Vice President for Educational Outreach. In addition, he is the original holder of the Herman Barnett Distinguished Professorship in Microbiology and Immunology. Houston serves or has served on many boards in the Galveston, TX, community. He was chairman of the University of Texas System Committee on the Advancement of Minorities and is cochair of the Galveston County Science Fair. Houston has received numerous awards for his work in the community, including the UTMB Kempner Award, the Martin Luther King, Jr. Service Award, and the Presidential Award for Science, Math, and Engineering Mentoring. Funding to support the many programs and activities of Houston's office comes from the National Science Foundation, the Howard Hughes Medical Institute, the Harris and Eliza Kempner Fund, the National Institutes of Health, and the Houston Livestock Show and Rodeo as well as the UTMB President's Cabinet Award. Houston is a past president of the American Society for Microbiology (ASM) and a past chairperson of the ASM Education Board.

Mary Sanchez Lanier, Ph.D.

Mary Sanchez Lanier is Associate Dean in the College of Sciences and a professor of microbiology at Washington State University (WSU). Lanier did her postdoctoral training at the Centers for Disease Control. Following that, she accepted a faculty position at WSU. Lanier's research focuses on the pathogenesis of viruses in their interactions with humans; she has studied the role of influenza virus in Reye's syndrome and the immunosuppressive effects of measles virus. Lanier chairs the American Society for Microbiology (ASM) Committee on Minority Education and is past chair of the review committees for the ASM Robert D. Watkins Graduate Research Fellowship and the ASM Microbiology Undergraduate Research Fellowship. She is also a reviewer for the Barry M. Goldwater Scholarship and Excellence in Education Program.

Nancy Malson

Nancy Malson is a candidate for a bachelor's degree in English at the University of Maryland University College. She is a member of the Golden Key International Honour Society, the National Society of Collegiate Scholars, and Sigma Tau Delta (an international English honor society). Malson has been the program administrator for the University of Maryland School of Medicine M.D./Ph.D. program since 2001. She has served in numerous volunteer activities at the University of Maryland, Baltimore. In 1995, Malson was elected to the Executive Committee of the University of Maryland Staff Senate and served two years as chair. From 2000 to 2005, she served as a representative to the University of Maryland System Women's Forum Executive Committee.

Richard McGee, Ph.D.

Richard McGee is Associate Dean for Faculty Recruitment and Professional Development and Associate Professor of Medical Education at Northwestern University, Feinberg School of Medicine. Before joining Northwestern University in 2007, he held faculty and administrative leadership positions associated with the development of Ph.D., M.D./Ph.D., and M.D. scientists at Georgetown University, the Medical College of Ohio, the Mayo Clinic College of Medicine, and the National Institutes of Health (NIH). At Mayo, McGee initiated the first postbaccalaureate research training model funded by NIH. He was also one of several advisors to the National Institute of General Medical Sciences during its creation of the Postbaccalaureate Research Education Program. McGee has led several NIH-funded studies of student development and has a special interest in helping students grow through the purposeful use of a period of time between college and graduate school. McGee's goal is to stimulate thinking, experimentation, and research into student learning and professional development.

Victoria McGovern, Ph.D.

Victoria McGovern joined the Burroughs Wellcome Fund (BWF) in 1997. She is a senior program officer for the BWF's assistant-professor-level career development program in infectious diseases as well as for similar career development activities in toxicology and pharmacology. McGovern's research interests have focused on chromosome structure and infectious diseases; this background contributes to her enthusiasm for advancing pathogen genomics. She has long been involved in science policy issues related to the strength of the scientific workforce, an interest she continues at BWF. McGovern has taught courses ranging from biochemistry to bioinformatics at Birmingham Southern College, the University of North Carolina-Charlotte, and Davidson College. She is a member of the National Postdoctoral Association's advisory board and chairs Sigma Xi's Committee on the Public Understanding of Science.

E. C. Melvin, B.A.

E. C. Melvin spent the first 11 years of his career at the National Cancer Institute. In 1999, Melvin was hired by the National Institute of General Medical Sciences as a senior grants management specialist. In 2001, he completed the Executive Leadership Program run by the U.S. Department of Agriculture; the program was designed to develop leaders in the federal

government. Also in 2001, Melvin was promoted to senior grants management specialist with delegated signatory authority to sign and release notices of grant awards. In March 2006, Melvin was promoted to grants management officer (team leader) of the Cell Biology and Biophysics Grants Management team. Melvin supervises eight specialists who award more than \$400 million each year in federal research grants. In May 2008, he completed the National Institutes of Health Senior Leadership Program. Melvin holds a bachelor's degree in business administration from Towson University and spent 23 years in the U.S. Army Reserve's Finance Corps. Melvin has served in various units throughout Maryland and Delaware and was called to active duty in Germany, Hungary, and Croatia in 1996.

Sharon Milgram, Ph.D.

Sharon Milgram received a doctorate in cell biology and anatomy from Emory University in 1991 and completed postdoctoral work at The Johns Hopkins University before joining the faculty at The University of North Carolina at Chapel Hill. She is currently the director of the Graduate Partnerships Program and the Office of Intramural Training and Education at the National Institutes of Health (NIH), where she also runs an active research lab in the NIH Intramural Program. Milgram teaches and advises young scientists and has served on the admissions committees for Ph.D. and M.D./Ph.D. programs.

Sandra Murray, Ph.D.

Sandra Murray is a full professor in the Department of Cell Biology and Physiology in the School of Medicine at the University of Pittsburgh. She holds a bachelor's degree from the University of Illinois, a master's degree from Texas Southern University, and a doctorate from the University of Iowa. Her postdoctoral training was in cellular and molecular endocrinology at the University of California. Murray serves on numerous professional and scientific society committees, including the Council for the American Society of Cell Biology. She has been committed to teaching students at foreign university sites and was partly responsible for developing the first physician's assistant program in sub-Saharan Africa. Murray has received numerous honors and awards, written and coauthored research and training grants, served as a resource scientist, presented seminars at leading universities, and collaborated with scientists at top research sites. She has been a visiting professor at the Scripps Research Institute, the Hospital Debrousse (Lyon, France), and the University Center for the Study of Germinal Cells (Siena, Italy). Murray plays a pivotal role in building the intellectual capacity and educational empowerment of students in the United States and abroad.

M. Kerry O'Banion, M.D.-Ph.D.

M. Kerry O'Banion is a tenured professor in the Department of Neurobiology and Anatomy at the University of Rochester. His research focuses on the role of cytokines and lipid mediators in promoting neuroinflammation, with active projects in Alzheimer's disease and radiation injury funded by the National Cancer Institute, the National Institute on Aging, NASA, and the U.S. Department of Energy. As director of Rochester's Medical Scientist Training Program, O'Banion oversees 60 M.D.-Ph.D. trainees.

He chairs the M.D.-Ph.D. Section of the American Association of Medical College's Group on Graduate Research Education and Training and cochaired of the Section's Communications Committee. O'Banion is also a founding board member of the American Physician Scientists Association.

Joel Oppenheim, Ph.D.

Joel Oppenheim holds a bachelor's degree in zoology and genetics from the University of Wisconsin and master's and doctoral degrees in medical microbiology from Loyola University School of Medicine. He was a National Institutes of Health postdoctoral fellow at the New York University (NYU) School of Medicine in the Department of Microbiology. Oppenheim first served on the NYU School of Medicine faculty as an assistant professor and then as an associate professor of microbiology for more than 20 years. In 1994, he was appointed Associate Dean for Graduate Studies and Director of NYU's Sackler Institute of Graduate Biomedical Sciences. Recently he was promoted to Senior Associate Dean of the Medical School. Oppenheim serves on the NYU School of Medicine's M.D. and M.D./Ph.D. admissions committees, and he chairs the Ph.D. admissions committee. He founded and directs the NYU Summer Undergraduate Research Program. Oppenheim is an active member of the American Society for Microbiology (ASM) and has served on various ASM committees. He is active in the Leadership Alliance and serves on the steering committee of the Group on Graduate Research, Education, and Training of the Association of American Medical Colleges.

Alexandra "Sacha" Patera, Ph.D.

Alexandra "Sacha" Patera is the Assistant Director of the Interdepartmental Biological Sciences (IBiS) Graduate Program at Northwestern University in Evanston, IL. She holds a doctorate in biophysics and structural biology from Brandeis University. Patera conducted postdoctoral research and held a research assistant professor position at Northwestern University. Her doctoral and postdoctoral research interests were in protein structure and the functional determination of cytochrome, serpin, topoisomerase, and beta-lactamase proteins. Currently, Patera directs and oversees a variety of professional and career development programs for undergraduates, graduate students, and postdoctoral scholars at Northwestern. She is also involved in the training young scholars in scientific skills and the responsible conduct of research. As a member of Northwestern's Science and Engineering Committee for Multicultural Affairs, Patera is actively involved in the recruitment, retention, and mentoring of underrepresented minority young scientists across all STEM fields. Patera is also an active member of the Chicago Chapter of the American Women in Science and American Association of University Women.

Irene Pepperberg, Ph.D.

Irene Pepperberg holds a bachelor degree from MIT and master's and doctoral degrees from Harvard University. Pepperberg is a research associate and lecturer in the psychology department at Harvard and an adjunct associate professor in the psychology department at Brandeis University. She has been a visiting associate professor at MIT's Media Lab, later leaving a tenured professorship

Conference Speakers (continued)

at the University of Arizona to accept a research scientist position there. She has been a fellow at the Radcliffe Institute of Advanced Study and won a John Simon Guggenheim Foundation Fellowship, the 2000 Selby Fellowship, and the 2005 Frank Beach Award. She also received fellowships from the Harry Frank Guggenheim and Whitehall Foundations, and numerous grants from the NSF. Her book, *The Alex Studies*, describing more than 20 years of peer-reviewed experiments on grey parrots, received favorable mention from publications as diverse as the New York Times and Science. Her memoir, *Alex & Me*, was a New York Times best seller. She has presented her findings nationally and internationally and has published numerous journal articles, reviews, and book chapters. She is a fellow of the Animal Behavior Society, the American Psychological Association, the American Psychological Society, the American Ornithologists' Union, American Association for the Advancement of Science, the Eastern Psychological Association and serves as consulting editor for four journals.

Ilenys Pérez-Díaz, Ph.D.

Ilenys Pérez-Díaz is a scientist at the USDA Agriculture Research Service. Her research interests include the development of microbiology-based technologies for the improvement of the quality, safety, and value of commercially available vegetable products and to develop improved techniques to prevent the growth of spoilage microorganisms and assure inactivation of pathogenic bacteria in acidified vegetable products. Pérez-Díaz initiated her research career at the age of 13, while participating in a microbiological survey sponsored by a clinical laboratory in her hometown of Moca, Puerto Rico. At age 15, she left home to pursue high school education in a science and math boarding school. While furthering her research experiences by participating in a number of programs, Pérez-Díaz obtained a bachelor's degree in industrial microbiology from the University of Puerto Rico. She holds a doctorate in microbiology from the University of Wisconsin.

Clifton A. Poodry, Ph.D.

Clifton A. Poodry is Director of the Minority Opportunities in Research Division at the National Institute of General Medical Sciences (NIGMS), National Institutes of Health (NIH). Poodry is responsible for developing and implementing NIGMS policies and plans for minority research training programs. He also serves as a liaison between NIGMS and NIH, other federal agencies, and the scientific community. Before assuming this position in April 1994, Poodry was a professor of biology at the University of California, Santa Cruz, and the principal investigator on a \$1 million Howard Hughes Medical Institute grant for undergraduate biological sciences. He serves on several advisory boards (including those for the Headlands Indian Health Careers Program of the University of Oklahoma, the American Indian Science and Engineering Society, and the Society for the Advancement of Chicanos and Native Americans in Science [SACNAS]), and the advisory committee on Minority Science Education of the American Association for the Advancement of Science. Poodry is also a founding member of Open Mind, an association for the achievement of cultural diversity in higher education. He is a native of the Tonawanda Seneca Indian

Reservation. Poodry earned both bachelor's and master's degrees in biology at the State University of New York at Buffalo and holds a doctorate in biology from Case Western Reserve University. He received the Ely S. Parker Award from the American Indian Science and Engineering Society for Contributions in Science and Service to the American Indian Community in 1995 and the Distinguished Professional Mentor Award from SACNAS in 2004.

Jayne S. Reuben, Ph.D.

Jayne S. Reuben is an assistant professor in the Department of Biomedical Sciences at the Baylor College of Dentistry (a component of the Texas A & M Health Science Center). Her research interests include neuroimmunopharmacology and osteoimmunology. Reuben was formerly with the Department of Pathology at the University of Michigan; there, she was awarded a UNCF-MERCK Postdoctoral Science Research Fellowship and was elected to the executive board of the National Postdoctoral Association. Reuben holds a doctorate in pharmaceutical sciences from Florida Agricultural and Mechanical University (FAMU). At FAMU, she received several honors, including a pharmacology student research award, a student teaching award, and the FAMU College of Pharmacy Distinguished Leadership Award. Reuben is the recipient of fellowships from the American Foundation of Pharmaceutical Education, the Delores A. Auzenne Foundation, and the FAMU Faculty Development Program. She has also served as a MCAT/DAT/OAT instructor and curriculum adviser for Kaplan, Inc. Prior to her matriculation at FAMU, she worked as a biologist at the National Institute of Neurological Disease and Stroke. She is a member of the American Society for Investigative Pathology, American Association for Dental Research, American Dental Education Association, American Society of Pharmacology and Experimental Therapeutics, and FASEB/MARC Advisory Board.

Raymond Rodriguez, Ph.D.

Raymond Rodriguez is a professor in the Section of Molecular and Cellular Biology and director of the NIH-sponsored Center of Excellence in Nutritional Genomics at the University of California, Davis (UC Davis). After receiving his doctorate at UC Santa Cruz, he was an A.P. Giannini Foundation Postdoctoral Fellow in the laboratory of Herbert W. Boyer at UC San Francisco Medical Center. There, Rodriguez developed molecular cloning technologies that now serve as the foundation of the modern biotechnology industry. His 1977 article on the construction of the cloning vector pBR322 has been cited more than 5,000 times. Rodriguez is actively involved in research and teaching at the undergraduate and graduate level. From 1989 to 1992, Rodriguez formed and chaired the International Rice Genome Organization, a group that helped establish the framework for sequencing the rice genome. In 2003 he became director of the Center of Excellence for Nutritional Genomics, an NIH-sponsored, multi-investigator research program to study the impact of diet-genome interactions on human health. Rodriguez has been an advisor to the NIH and NSF since 1988. He has published numerous articles and books on molecular biology and biotechnology and holds 17 U.S. patents. His latest book is *Nutritional Genomics: Discovering the Path to Personalized*

Nutrition (J. Kaput and R.L. Rodriguez, eds.). His research focus is nutritional epigenomics or the study of how plant-based dietary factors alter human gene activity by chromatin modification.

Justin Rosenzweig, M.P.A.

Justin Rosenzweig is a grants management specialist with the Center for Bioinformatics and Computational Biology (CBCB) and the Minority Opportunities in Research (MORE) team of the National Institute of General Medical Sciences (NIGMS). Rosenzweig joined NIGMS in 2004 and manages the business and fiscal aspects of a portfolio of grants from the minority programs supported by the institute (the MORE division) and CBCB. Rosenzweig holds a bachelor's degree in political science from the University at Albany, SUNY, and a master's degree in public administration from American University.

Shiva P. Singh, Ph.D.

Shiva P. Singh is chief of the MORE Special Initiatives Branch at the National Institute of General Medical Sciences (NIGMS), National Institutes of Health. Singh (i) oversees programs that seek to increase the participation of underrepresented students and faculty in biomedical and behavioral sciences, (ii) serves as a program director in the Division of Genetics and Developmental Biology, where he manages grants in host-associated microbial community ecology, and (iii) is program director for the Modeling the Scientific Workforce program in the Center for Bioinformatics and Computational Biology. Before joining NIGMS, Singh was professor and chair of the Department of Biological Sciences and director of Biomedical Research and Training Programs at Alabama State University (ASU), where he led the effort to develop a new Ph.D. program in environmental microbiology. He also served as an NIH Extramural Associate. Singh has devoted much of his professional career to mentoring and training high school, undergraduate, and graduate students in biomedical disciplines. Singh is a past president of the Southeastern Branch of the American Society of Microbiology and has served on the Science and Public Policy Committee of the Alabama Academy of Sciences and on numerous scientific review panels. His honors include the City of Montgomery Mayor's Certificate of Recognition for Outstanding Professional Achievement, Presidential Award for Dedicated and Exemplary Service and Contributions to ASU, and an NIGMS Director's Award. Singh holds bachelor's and master's degrees in plant sciences from GB Pant University of Agriculture and Technology and a doctorate in microbiology from Auburn University. He conducted postdoctoral research at Auburn University and Argonne National Laboratory.

Gayle Slaughter, Ph.D.

Gayle Slaughter holds a bachelor's degree in chemistry and a doctorate in biochemistry. Her postdoctoral fellowship at Baylor College of Medicine was supported by a National Institutes of Health, National Research Service Award. She has served as an invited speaker for international and national conferences and as a reviewer for a number of journals, the Texas Heart Association, and National Institutes of Health and National Science Foundation (NSF) grant study sections. Slaughter was very involved in the design (and was designated director) of the SMART Summer Undergraduate Research Program and was Director of Special

Projects for the graduate school, with emphasis on training young scientists from underrepresented populations. More than 1,200 students have participated in the unique SMART program (partially funded by the U.S. Department of Defense, the National Institute of General Medical Sciences, the National Heart, Lung, and Blood Institute, and the NSF), a high school summer research program; the SMART GRE Prep Course and an Initiative for Minority Student Development Grant are some of the spinoff activities from the SMART program. Her skills workshop series, "Thriving, Not Just Surviving, as a Scientist," is presented annually for developing scientists. She was elected to the Steering Committee of the Group on Graduate Research, Education, and Training, which is composed of leaders of graduate education in medical schools. In 2001, she received the Presidential Excellence in Education Award from Baylor College of Medicine in recognition of the educational models she has created and supervised.

Roland J. Thorpe, Jr., Ph.D.

Roland J. Thorpe, Jr., PhD, is an Assistant Scientist in the Department of Health Policy and Management at The Johns Hopkins Bloomberg School of Public Health and Core Faculty of the Hopkins Center for Health Disparities Solutions. Dr. Thorpe completed a three year National Research Service Award Postdoctoral Fellowship in Gerontology and Health Disparities in the Division of Geriatrics and Gerontology and the Center on Aging and Health at the Johns Hopkins University School of Medicine. He is a gerontologist and epidemiologist whose research agenda focuses on how social and behavioral factors influence the health and functional status of middle- to old-age adults.

Adolphus Toliver, Ph.D.

Adolphus Toliver is Chief of the Minority Access to Research Careers (MARC) Branch of the National Institute of General Medical Sciences (NIGMS). He is responsible for the scientific and administrative management of the MARC Branch. Toliver came to NIGMS from the National Institutes of Health (NIH) Division of Research Grants (DRG), where he has served as a scientific review administrator for the Biochemistry Study Section since 1975. At DRG, Toliver was involved in efforts to recruit women and minorities to serve as NIH consultants as well as in activities related to research training and science education. Among his honors are two NIH Awards of Merit, the Public Health Service Special Recognition Award, the National Institutes of Health Director's Award, and the DRG Equal Employment Opportunity Special Achievement Award. Before joining the DRG, Toliver was a member of the faculty of the Department of Biochemistry and Biophysics at the University of California, Davis. He is the author of a number of scientific papers, the majority of which deal with the regulation of DNA replication in mammalian cells. Toliver holds a bachelor's degree in biology from Washington University (St. Louis, MO), where he was elected to membership in Alpha Sigma Lambda, an honorary scholastic society. He holds master's and doctoral degrees, both in molecular biology and biochemistry, from Purdue University, and did his postdoctoral training at Kansas State University. Toliver is a member of the American Society for Cell Biology, the American Society for Biochemistry and Molecular Biology, and Sigma Xi.

Conference Speakers (continued)

Jana Marie Toutolmin, Ph.D.

Jana Marie Toutolmin has been with the University of California, San Francisco (UCSF) Medical Scientist Training Program (MSTP) for 30 years and serves as its administrative director. She has participated in all aspects of the program's growth to assist the MSTP in becoming the premiere program it is today. Toutolmin has served as the MSTP diversity recruiter for the past 20 years, attending national recruitment symposia such as Society for the Advancement of Chicanos and Native Americans in Science (SACNAS), National Minority Research Symposium, and its successor, ABRCMS, in addition to leading recruitment seminars at many universities locally and nationally. Most recently, as co-chair of the Communications Committee for the Association of American Medical Colleges (AAMC) Group on Graduate Research, Education and Training (GREAT) M.D.-Ph.D. Section, she has represented the Section at the National Pre-Med Health Advisors Conference by educating pre-med health advisors on M.D.-Ph.D. training. This has created a partnership that will benefit all M.D.-Ph.D. programs in the country. Toutolmin facilitated the production of M.D.-Ph.D. training brochures and a website that is hosted by the AAMC website. For the past ten years, she has served as the UCSF School of Medicine MSTP Administrative Official on the AAMC Section for GREAT, as a member of the Executive Planning Committee for the Annual M.D.-Ph.D. National Conference, the AAMC GREAT M.D.-Ph.D. Section Executive Committee, and the National M.D.-Ph.D. Association.

Neil deGrasse Tyson, Ph.D.

Neil deGrasse Tyson is the first occupant of the Frederick P. Rose Directorship of the Hayden Planetarium. Tyson holds a bachelor's degree in physics from Harvard University and a doctorate in astrophysics from Columbia University. His professional research interests include star formation, exploding stars, dwarf galaxies, and the structure of our Milky Way. President Bush twice appointed Tyson to serve on national commissions. In 2006, NASA appointed him to its prestigious Advisory Council, which helps guide the agency through its perennial need to fit its ambitious vision into a restricted budget. Among Tyson's nine books is his memoir *The Sky Is Not the Limit: Adventures of an Urban Astrophysicist* and *Origins: Fourteen Billion Years of Cosmic Evolution*, cowritten with Donald Goldsmith. *Origins* is the companion book to the PBS-NOVA four-part miniseries "Origins," in which Tyson served as on-camera host. Since 2006, he has appeared as the host of "NOVA ScienceNow," a look at the science that shapes the understanding of our place in the universe. Tyson's latest two books are *Death by Black Hole and Other Cosmic Quandaries* and *The Pluto Files: The Rise and Fall of America's Favorite Planet*. A PBS/NOVA documentary, "The Pluto Files," based on the book, premiered in March 2010. Since 2009 he and co-host Lynn Koplitz have brought science to commercial radio with the NSF-funded program "StarTalk." Tyson is the recipient of nine honorary doctorates and the NASA Distinguished Public Service Medal. His contributions to the public appreciation of the cosmos have been recognized by the International Astronomical Union in their official naming of asteroid 13123 Tyson.

Terry Woodin, Ph.D.

Terry Woodin has been a Program Officer in the Division of Undergraduate Education at the National Science Foundation (NSF) for the past 18 years. She has directed programs that deal with graduate education, undergraduate education, and teacher preparation in sciences, technology, engineering, and mathematics and was active (along with representatives of the National Academies, the Howard Hughes Medical Institute, and the National Institutes of Health) in the planning and implementation of "Vision and Change in Undergraduate Biology Education," the American Association for the Advancement of Science's effort to address the needs of undergraduate education in the biological sciences. Woodin has also served as a science and education advisor to a member of the U.S. Senate, been a visiting fellow in Nagoya, Tokyo, and Sapporo, Japan, under the Japan Society for the Promotion of Science program, and served in Portugal as a science fellow with the State Department. Before her government service, she was a biochemistry professor in the College of Agriculture and the School of Medicine at the University of Nevada, Reno, where she did research on thermophilic fungi, and served as Associate Director of the University Honors Program. She holds master's and doctoral degrees in biochemistry from the University of California, Davis, and a bachelor's degree in chemistry from Alfred University.

Eleanor Wurtzel, Ph.D.

Research in the laboratory of Eleanor Wurtzel is directed at solving the global health problem of vitamin A deficiency, which affects 250,000,000 children worldwide and leads to increased childhood mortality. Wurtzel's laboratory is well known in its field for advances in the study of the carotenogenesis of maize and other cereal crops. As a graduate student at SUNY Stony Brook, Wurtzel developed the method of "gene tagging" and cloned the first genes of the bacterial two-component signal transduction pathway. From this work, an entire field developed and led to the discovery of similar systems in evolutionarily distant organisms such as plants. After completing her doctorate, Wurtzel switched to plant molecular biology and was awarded a National Science Foundation Plant Biology Postdoctoral Fellowship to pursue a project of her own design. Wurtzel then moved to the Brookhaven National Laboratory, where she learned maize genetics and applied her molecular and biochemical expertise to the more complex problems in plant model systems. She next moved to Cold Spring Harbor Laboratory for continued postdoctoral training in plant biology. Wurtzel initiated studies on the regulation of carotenoid biosynthesis in cereal crops, research that continues in her lab today. In 1987, Wurtzel joined the faculty at Lehman College, CUNY. She is a tenured full professor at Lehman College and The Graduate Center of CUNY and has chaired the CUNY Plant Sciences Ph.D. subprogram for the past five years.

Suzanne Anderson Zahir, M.Ed.

Suzanne Anderson Zahir is a senior-level consultant with the Collaborations Group, Inc. of Atlanta, GA has been an executive coach, leadership and team development trainer and facilitator since 1975. Zahir is one of the co-creators of a “Quantum Change Model” which is used to assist individuals and teams in transforming the ineffective habitual behavior that can unconsciously block them from fulfilling their greatest visions. Her background as a therapist and organization development consultant assists her to create meaningful and effective experiences for personal and professional development in her roles as a conference speaker and seminar facilitator. She is presently completing the final stages of her doctorate in organizational behavior and leadership. Zahir brings the spirit of authenticity, transformation, and reconciliation to all of her work. She holds a bachelor’s degree from Duquesne University and a master’s degree in counseling and rehabilitation from The University of Pittsburgh, and is now completing her doctorate in organizational behavior and leadership from the International University for Graduate Studies (St. Kitts, WI).

María Elena Zavala, Ph.D.

María Elena Zavala is a professor of biology at California State University. She has worked at the United States Department of Agriculture, Yale University, and Michigan State University, and has spent most of her career studying plant development, particularly roots. Zavala was the first scientist to show the distribution of a plant hormone, cytokinin, in roots and has published the results of her work on plants in various scientific journals. Her research efforts have been funded by the Ford Foundation, the National Science Foundation (NSF), the U.S. Department of Agriculture, and the National Institutes of Health (NIH). In addition to her interest in plants, Zavala is interested in educational equity issues, has worked to develop science curricula for K-12 teachers, and has established and directed programs that seek to increase the number of minorities in the sciences. She has also worked on several projects that seek to increase the participation of women in science. Zavala has served on NIH advisory boards and has reviewed proposals for the NSF, NIH, and the U.S. Department of Agriculture. She was the first Chicana president of the Society for the Advancement of Chicanos and Native Americans in Science, and has been recognized by the California State University system for her success in mentoring students. Zavala is a recipient of the Presidential Award for Excellence in Science, Mathematics, and Engineering Mentoring and was named American Association for the Advancement of Science fellow in 2009. Zavala is a graduate of Pomona College and the University of California, Berkeley.



ABRCMS Statistics

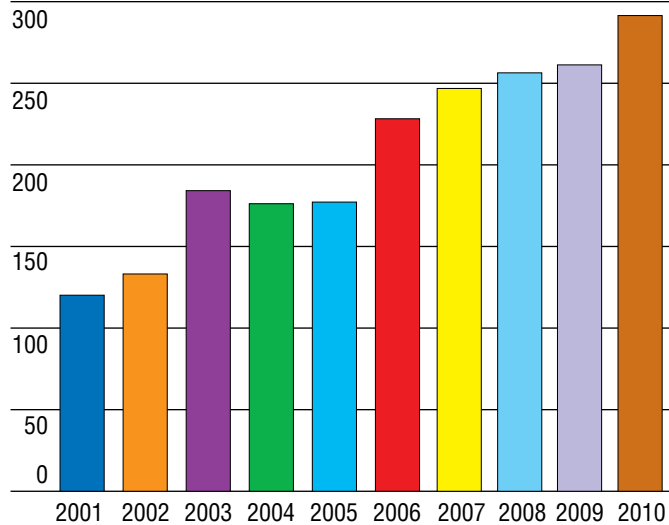
Registration

Type of Attendee	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010*
Students	1157	1646	1694	1580	1667	1633	1525	1788	1755	1870
Undergrad Students/Postbac	863	1395	1383	1264	1296	1233	1290	1494	1462	1608
Grad Students/Postdocs	161	251	311	316	371	400	235	294	293	262
Exhibitors	230	237	283	305	323	418	426	442	458	429
Program Directors & Faculty	304	471	464	409	423	421	503	501	445	524
Others/Admin	164	235	129	141	131	96	10	109	99	143
Total	1855	2589	2570	2435	2544	2568	2464	2840	2757	2966

*As of October 25, 2010

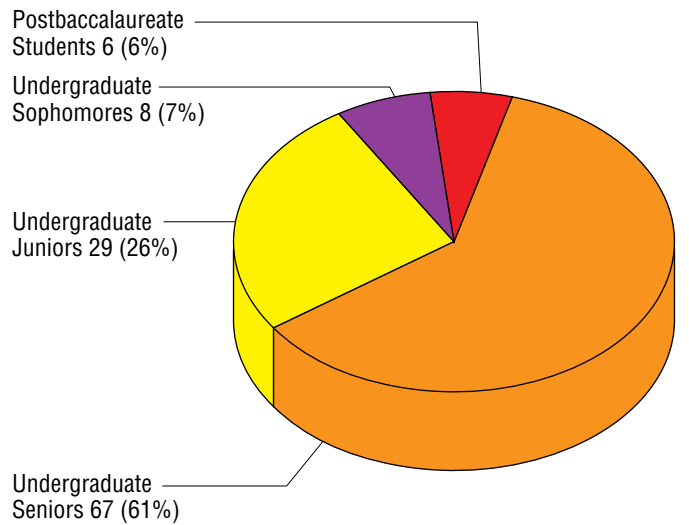
Exhibits

Number of Exhibit Booths



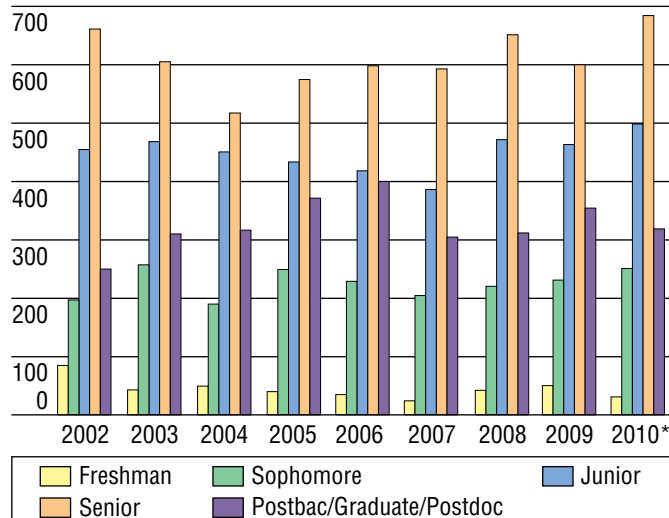
ABRCMS Travel Awards (2010 Awardees)

Total Awardees 110



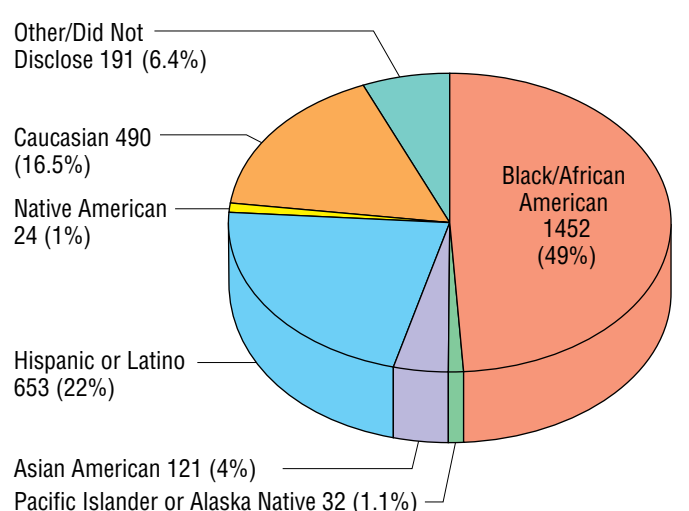
ABRCMS Student Education Levels

Attendees



2010* ABRCMS Attendee Ethnicity

Total Attendance 2966



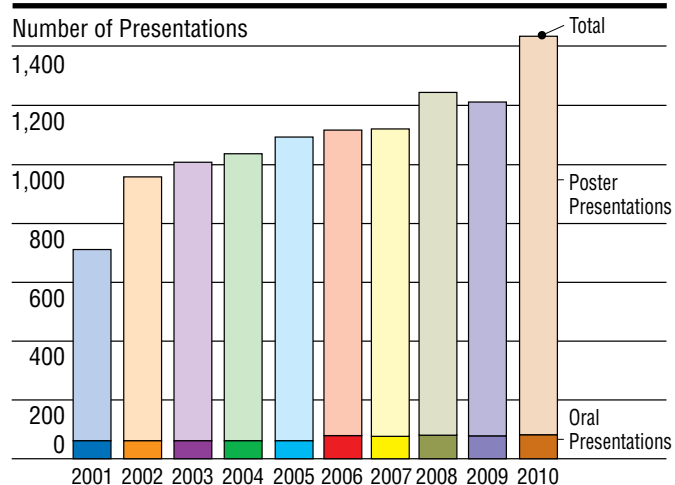
*As of October 25, 2010

*As of October 25, 2010

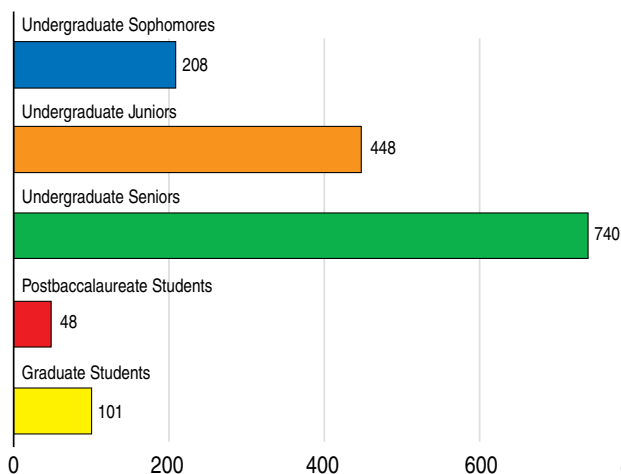
Abstracts Submitted

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Biochemical Sciences	81	90	114	109	101	117	120	117	141	154
Cell Biological Sciences	197	303	289	215	233	198	174	189	195	232
Chemical Sciences	93	112	125	123	135	128	141	162	148	156
Molecular Biological Sciences	-	-	-	139	118	152	148	159	136	151
Microbiological Sciences	88	135	129	156	162	220	182	217	200	261
Neuroscience	-	90	85	56	121	138	138	131	130	160
Physiological Sciences	142	146	138	156	89	103	87	84	87	102
Physical Sciences & Mathematics	19	45	37	65	80	81	51	90	73	110
Social & Behavioral Sciences & Public Health	73	124	74	83	104	89	84	155	127	162
Environmental Sciences	60	79	93	-	-	-	-	-	-	-
Interdisciplinary Sciences	16	-	-	-	-	-	-	-	-	-
Developmental Biological Sciences	-	-	-	-	-	-	41	61	61	57
Total	769	1124	1084	1102	1143	1226	1160	1365	1298	1545

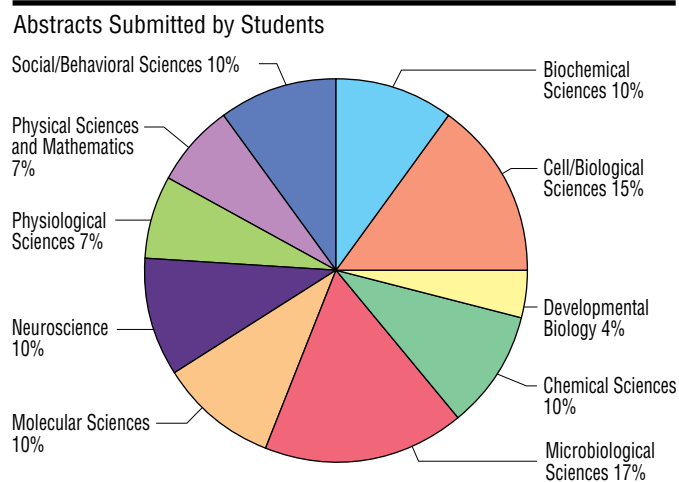
Total Number of Student Presentations



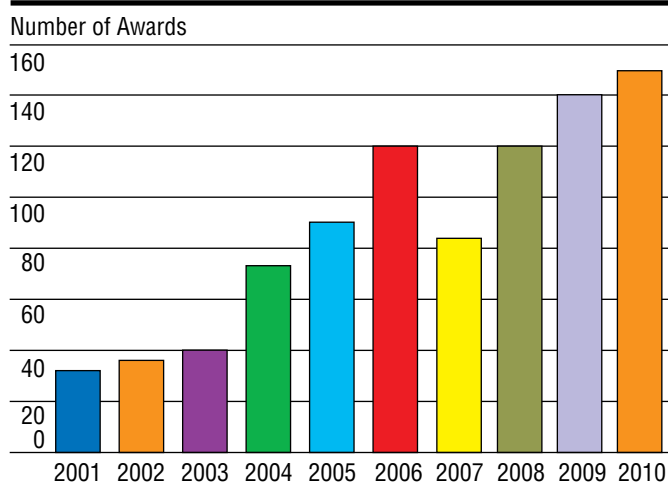
2010 ABRCMS Abstracts Submitted by Educational Level



2010 Distribution of Scientific Disciplines



Student Presentation Awards



2010 Conference Sponsors

(As of October 23, 2010)

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Professional Societies



American Association for the Advancement of Science



American Chemical Society



American Physiological Society



American Society for Biochemistry and Molecular Biology



American Society for Cell Biology



American Society for Microbiology



American Society for Pharmacology and Experimental Therapeutics



American Society of Plant Biologists



Biophysical Society



FASEB MARC Program



Keystone Symposia



Society for Developmental Biology



Society for Neuroscience



Society of Toxicology



St. Jude Children's Research Hospital

Educational Institutions



Columbia University Medical Center



Stanford University, School of Medicine



Gerstner Sloan-Kettering Graduate School, Memorial Sloan-Kettering Cancer Center



University of Alabama at Birmingham, Graduate Biomedical Sciences



New York University School of Medicine, Sackler Institute & Office of Diversity Affairs



West Virginia University Health Sciences Center

Exhibition Hall Floor Plan

The Future of Science:
Diverse People, Diverse Needs

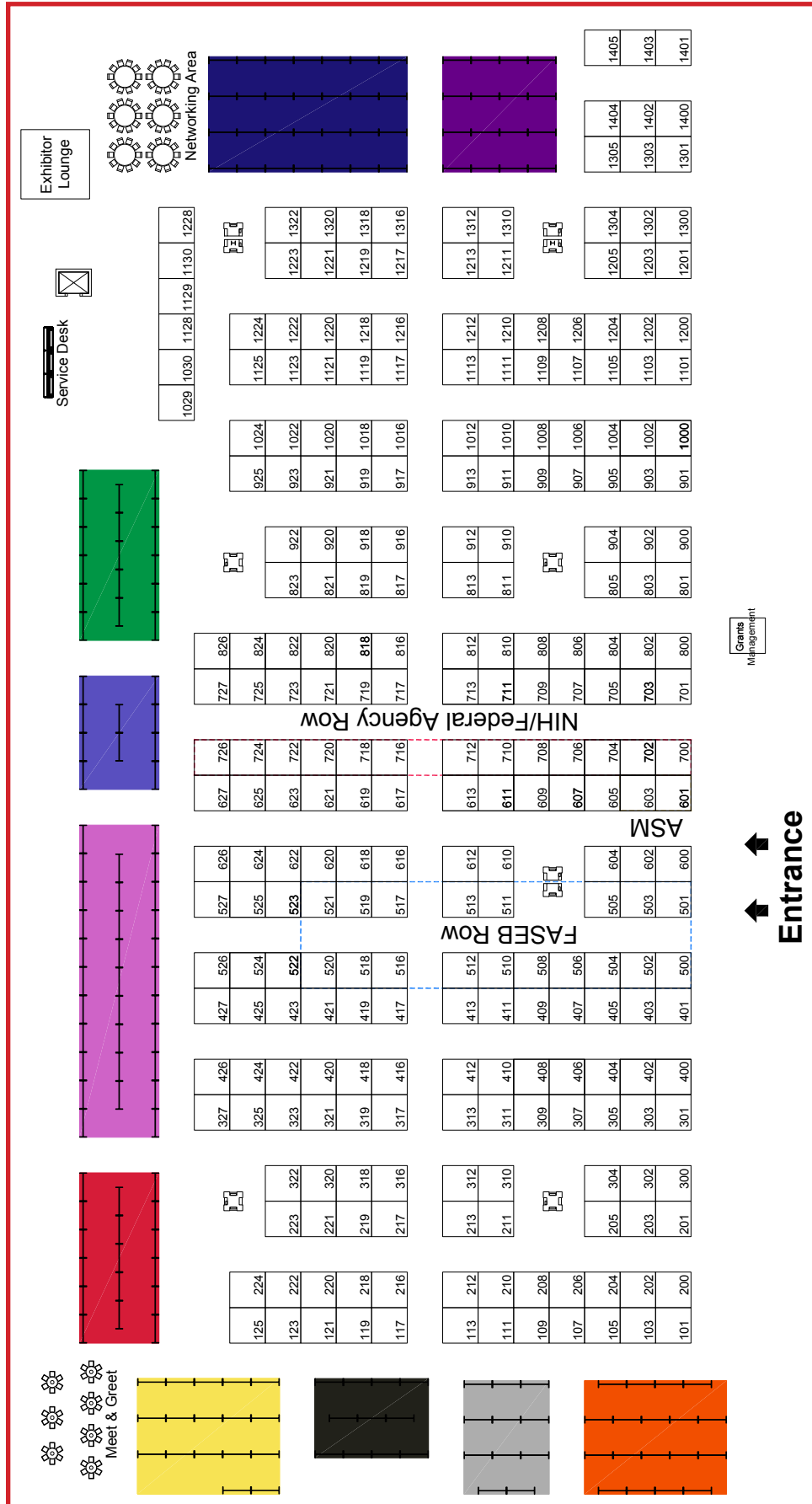


Undergraduate,
postbaccalaureate and
master's-level graduate
student presentations

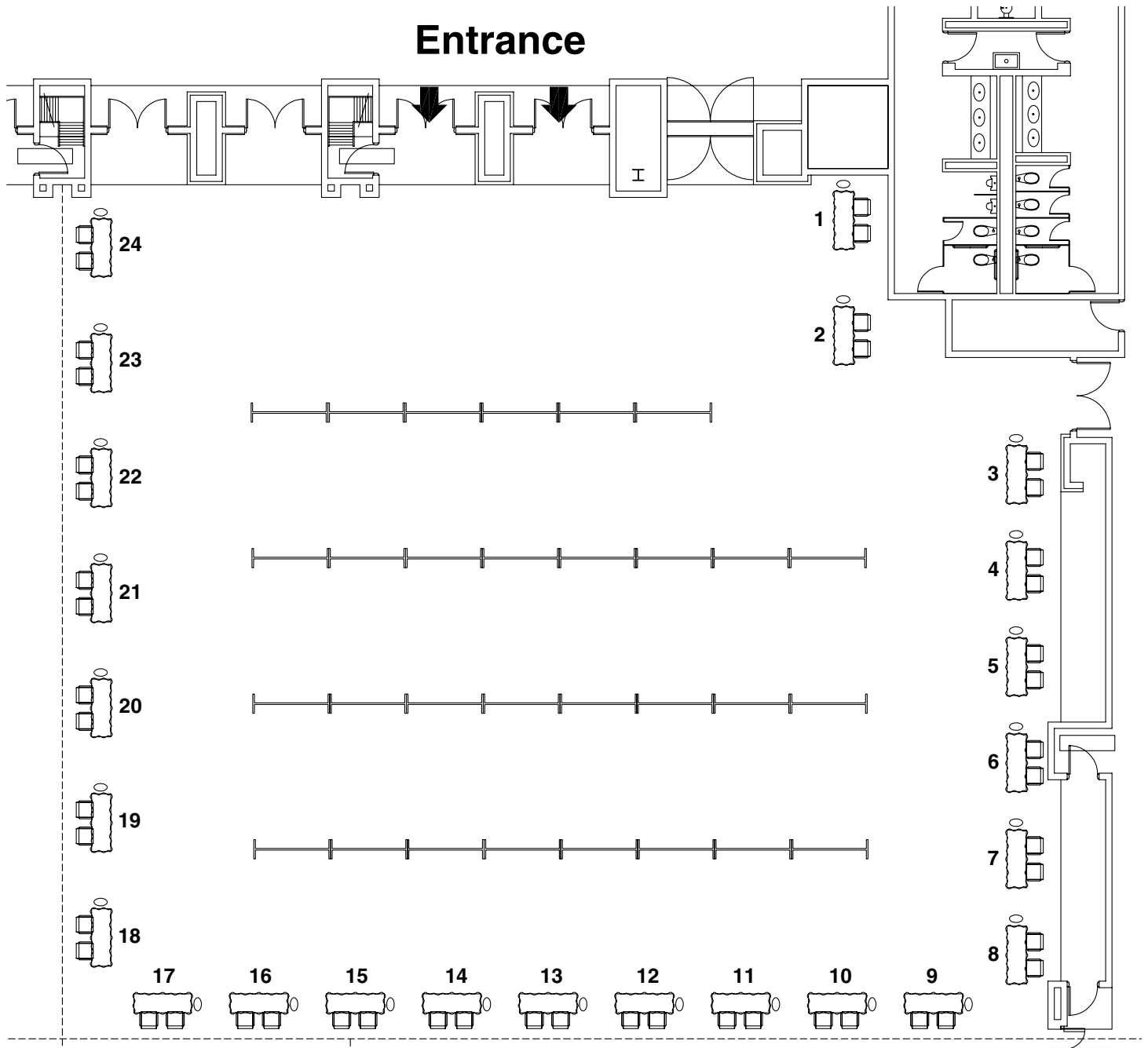
Exhibit Hall C

Poster Presentations

- Social and Behavioral and Public Health
- Physiological
- Physical Sciences and Mathematics
- Neuroscience
- Molecular Biological
- Microbiological
- Developmental Biological
- Chemical
- Cell Biological
- Biochemical



Postdoctoral Recruitment Exhibit Hall Floor Plan



Convention Center Floor Plan

The Future of Science:
Diverse People, Diverse Needs



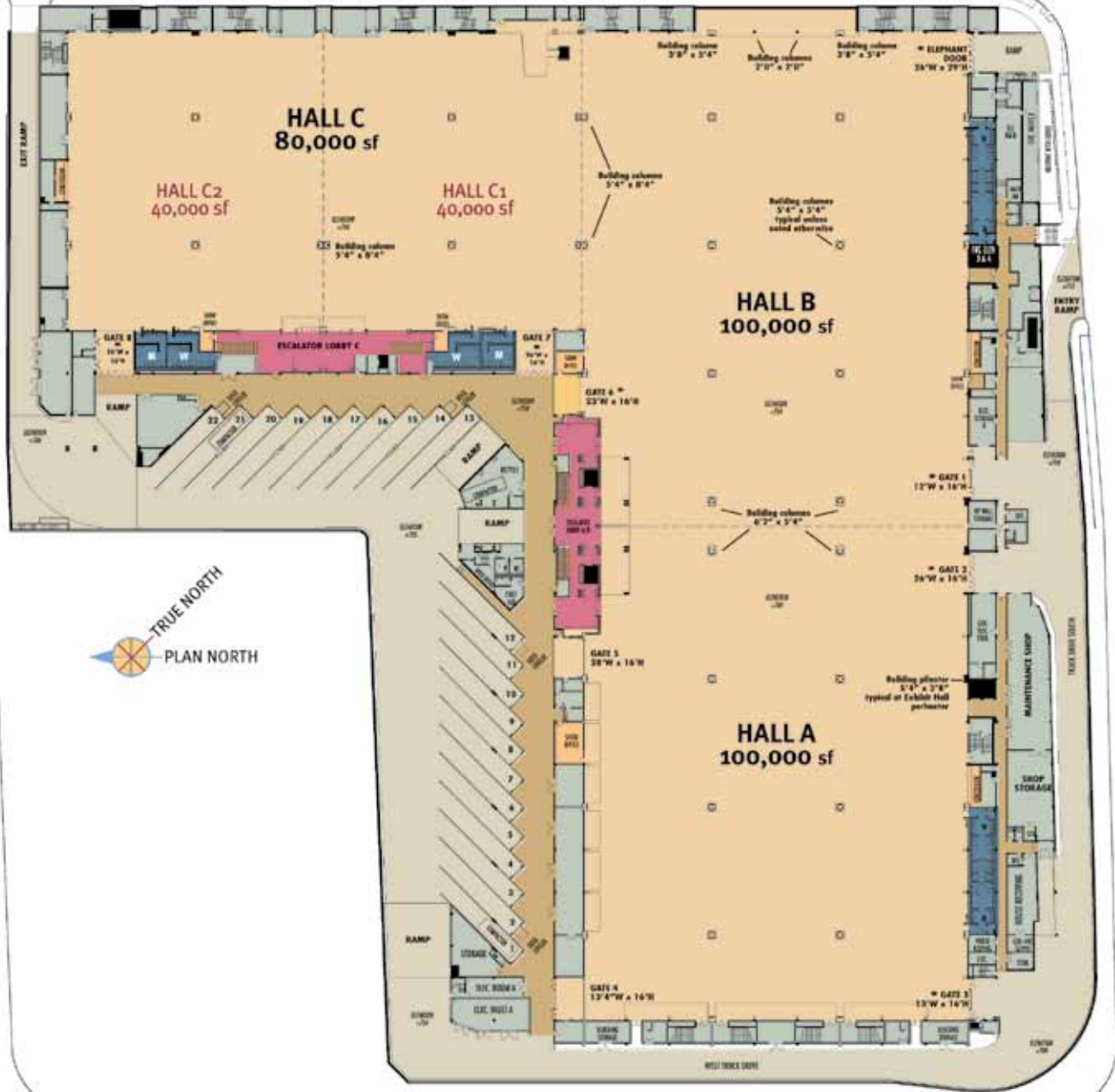
EXHIBIT LEVEL FLOOR PLAN



SOUTH BREVARD STREET

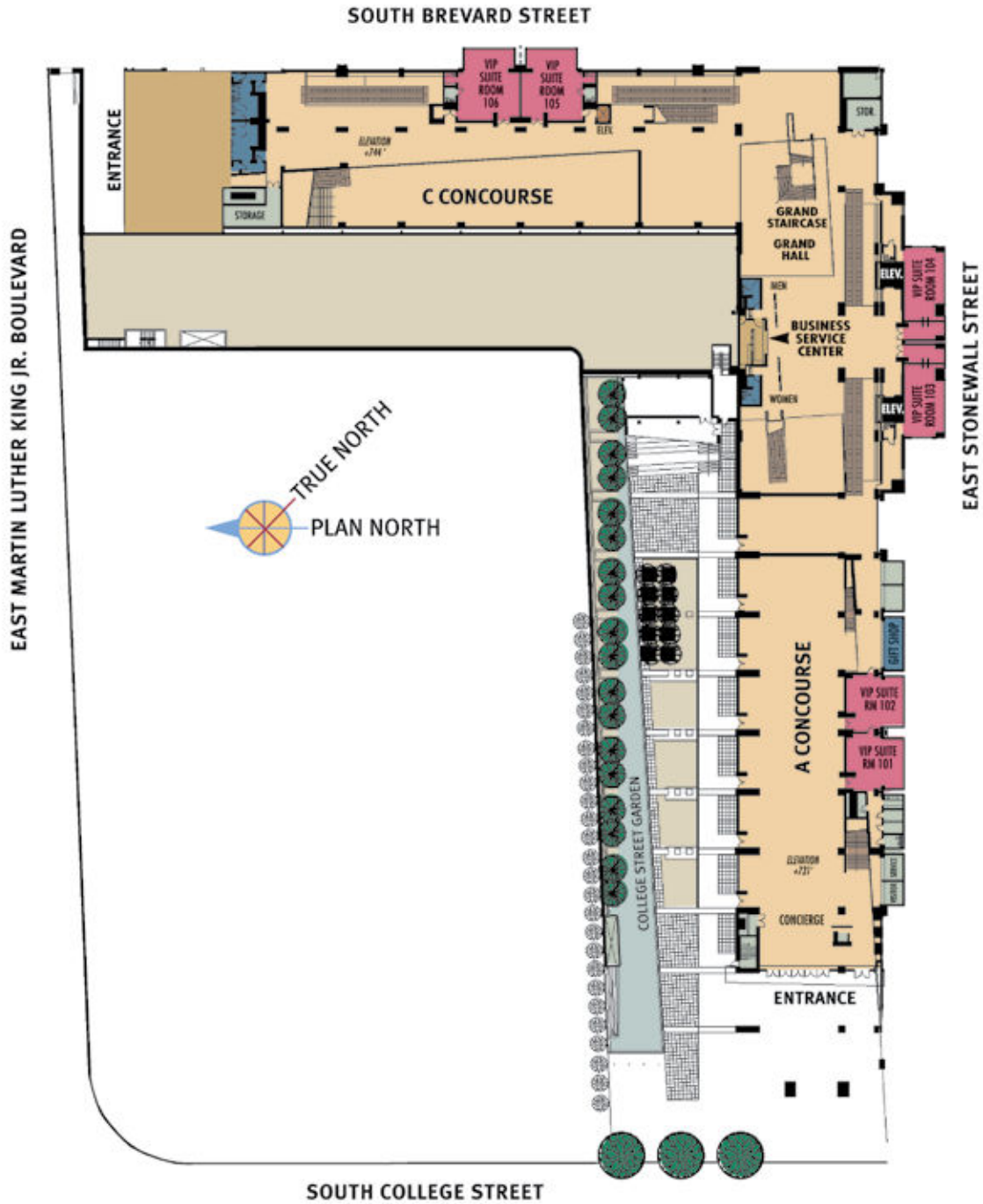
EAST MARTIN LUTHER KING JR. BOULEVARD

EAST STONEWALL STREET



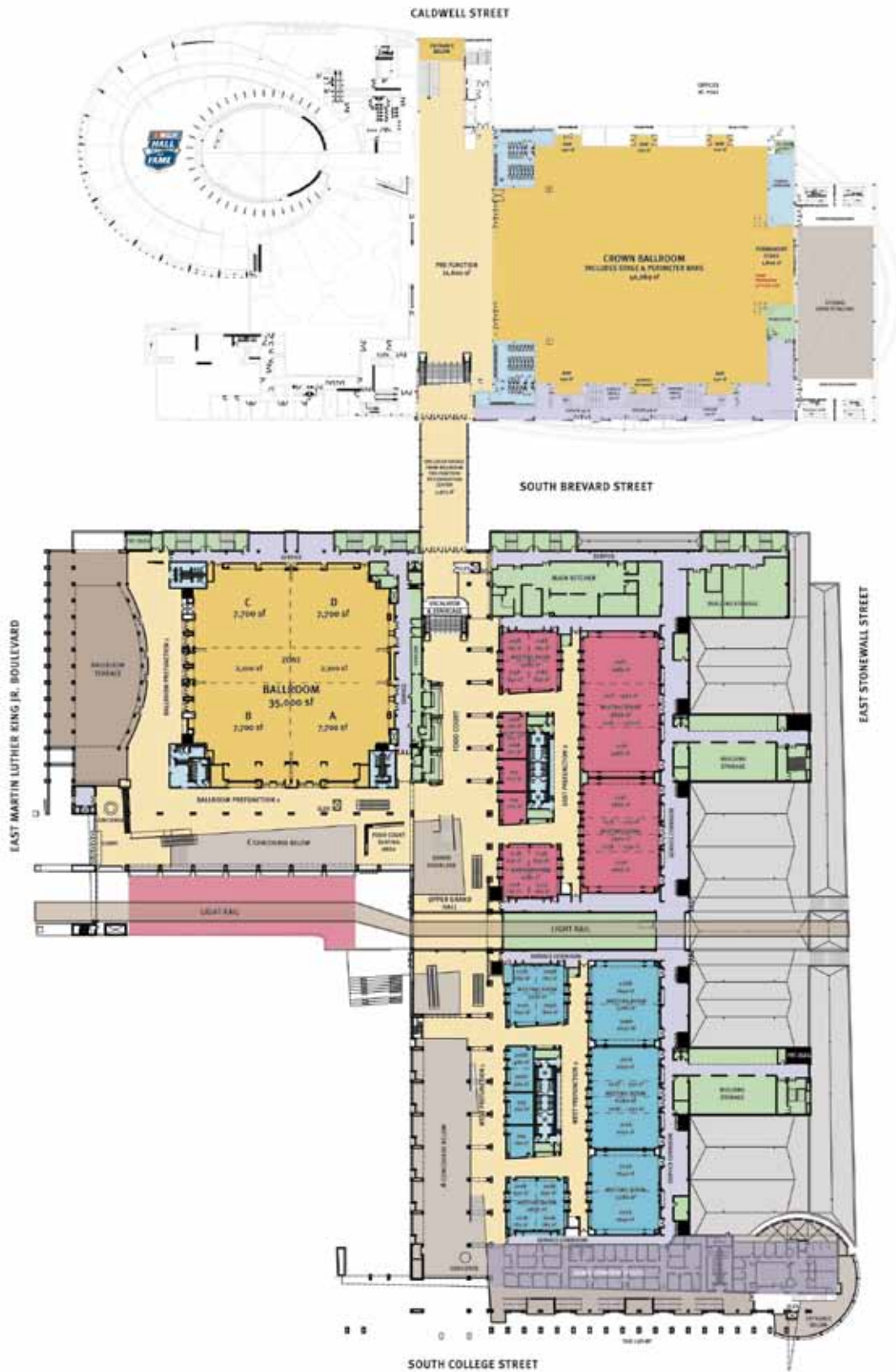
SOUTH COLLEGE STREET

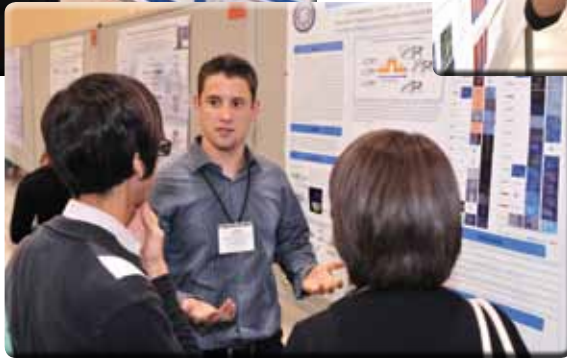
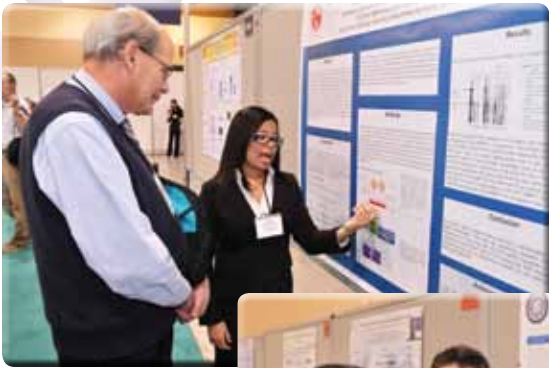
STREET LEVEL FLOOR PLAN



BALLROOM & MEETING ROOM LEVEL FLOOR PLAN

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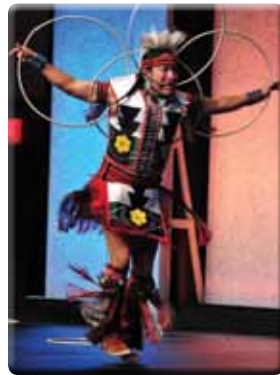


“ This was my first time attending a conference of this magnitude. I am really amazed with every thing that I saw this past week. Thanks to this conference I perceive many different views of higher education that I have never seen. Once again thanks to all the ones who make that possible and hope I can be able to participate in future conference, not just as a student but maybe as speaker or a presenter.”

2009 UNDERGRADUATE STUDENT

“ ABRCMS is a real class act—one that would be very hard to follow by any other venue group. Keep up the good work!!! ”

2009 FACULTY PARTICIPANT



Native American Dance Performance.

“ This was my 9th year to attend and it’s still the highlight of my year. I leave energized and rejuvenated. I love seeing the students’ confidence levels increase as well as their motivation to try what they never thought possible before attending ABRCMS. ”

2009 FACULTY PARTICIPANT



ABRCMS Steering Committee Members pose with speaker Mae Jemison.



Exhibitor Reception.

The Annual Biomedical Research Conference for Minority Students (ABRCMS) is the largest multidisciplinary national student conference designed to encourage students to pursue advanced education and training in the biomedical sciences or behavioral sciences, including mathematics, and provide faculty mentors and advisors with resources for facilitating student success. Approximately 2,900 individuals, including 1,850 undergraduate students, 250 graduate students, 50 postdoctoral scientists, and 750 faculty and administrators attend the conference.

One of the main goals of the ABRCMS is to challenge everyone to learn new information and to ask questions about the new information. Each day take a few moments to share your newly acquired knowledge with another student, faculty member, director, or colleague.

Reflections - All ABRCMS Participants...

Regarding a scientific session...

- What was the speaker's primary message?
- What was the problem or the question under study? How did the speaker resolve the problem or answer the question under study?
- What information is known or unknown about this topic?
- What impact does the research have on improving health and well-being of population?
- Are there any "next steps" to study?

Reflections - Students...

Regarding a professional development session...

- What was the speaker's primary message?
- How could you apply this message in your planning next month, in six months?
- What tools, resources, and/or people do you need to advance further?
- Where can you find these tools, resources, and people?

Reflections - Program Directors, Faculty, Exhibitors, and Program Administrators

It Takes the Community to Raise a Child

According to *MentorNet News* (September 06 issue), advisors of graduate students (and prospective graduate students) should

- "Take students to conferences and introduce them to colleagues. Do not assume that they know how to network; they will need help to develop this vital skill."
- "Encourage students to present posters at a conference starting from their first year. Make them rehearse until they are comfortable with the material and the background. Ask them 'why' they did the work. Ask them questions that you know might be asked. Bring colleagues over to their poster and introduce them. Then stand back and let them do the presentation; step in only if they need you."

Beyond ABRCMS, Moving On

Participating in ABRCMS is a critical juncture for students. It serves as both an end point for a single research experience and a starting point for the journey towards becoming a scientist. For students who conducted research and presented at ABRCMS, it is a time to rejoice and celebrate accomplishments. However, when students leave ABRCMS, they must take the next steps in their journey. These should include continuation of their research experiences, presentations at disciplinary society meetings, and networking with new colleagues.

Students, consider the following:

- Identify six steps to move you along your journey,
- Identify how and when you will complete the first step, second step, etc.,
- Identify the people and resources required to complete the first step, second step, etc.,
- Write an outline of your plan and revisit it regularly.

Celebrating



— Years of —
ABRCMS