



Annual Biomedical Research Conference for Minority Students
November 1-4, Phoenix, Arizona

Preliminary Program

(subject to change)

New This Year

Meal Plan Ticket

The new ABRCMS grant states that registration and meals must be uncoupled. That means that you'll need to purchase a meal plan ticket separately from your registration through a third-party vendor—Bistro Tickets.* **Please note that meal plan tickets must be purchased by October 20, 2017.**

**Please note: Bistro Tickets is in no way associated with the American Society for Microbiology (ASM) or the Annual Biomedical Research Conference for Minority Students (ABRCMS).*

The meal plan ticket includes the following:

- Wednesday: Dinner
- Thursday: Breakfast, Lunch, and Dinner
- Friday: Breakfast and Lunch
- Saturday: Breakfast and Lunch

Saturday evening we will have an Awards Banquet. You have the option of purchasing a meal plan that includes or excludes the Awards Banquet. Alternatively, you can purchase a ticket to the Awards Banquet only. Please note that the meal plan ticket does NOT include receptions.

Purchase your meal ticket at <http://www.abrcms.org/index.php/register/meal-plan-ticket>.

Presentation Practice and Peer Mentoring Sessions (Sponsored in Partnership with FASEB) *(Recommended for student presenters)*

The FASEB MARC Program will sponsor poster/platform presentation practice and peer mentoring sessions for students/trainees presenting at ABRCMS 2017. The presentation practice sessions are scheduled for 30-minute periods, and will be conducted on designated dates and times by FASEB MARC Peer/Faculty Mentors. The sessions will help to significantly improve the chances that participants' presentations are coherent, polished, free of technical problems, and within time limits. Participants will gain confidence in presenting their research and will develop their networking, communication and other soft skills.

Registered ABRCMS 2017 attendees may sign up online beginning 8:00 a.m. (MST) on Monday, October 16, 2017. Signups are on a first-come, first-serve basis.

Facilitators

To be Determined

Mentoring Hubs and Coaching Sessions

(Recommended for all students)

Everyone agrees that we need multiple mentors to help us develop as scientists and professionals, but finding mentors and forming productive mentoring relationships can be difficult. Come discuss the ins and outs of mentoring, within and outside the research environment. Several mentors have been identified to host a table and provide one-on-one coaching during exhibit hall hours

Speakers

To Be Determined

Daily Program

(subject to change)

Wednesday, November 1, 2017

12:00 p.m. – 8:00 p.m.

Registration Open

3:00 p.m. – 8:00 p.m.

Exhibit Setup

2:00 p.m. – 6:00 p.m.

CONCURRENT PROFESSIONAL DEVELOPMENT SESSION

Session 1

Do You Play Fair? A Workshop about Bias in Academia

(Recommended for graduate students, postdoctoral scientists, faculty, program directors, and exhibitors)

Explore how unconscious bias may impede student success in STEMM fields. *Fair Play* raises awareness about racial biases in academia, which can inadvertently influence judgments about and behavior toward others. In the game, you are graduate students who experience bias incidents as you navigate through your academic career and interact with others on a college campus. Your success depends on how you interact with colleagues and how well you learn bias concepts. You will also engage in a facilitated discussion about addressing unconscious bias in your relationships with students and at your institution.

Speakers

Christine Pribbenow, Ph.D., University of Wisconsin–Madison, Madison, WI

Percy Brown, Jr., M.S.Ed., University of Wisconsin–Madison, Madison, WI

2:00 p.m. – 2:45 p.m.

ABRCMS Student Awardees Orientation

This orientation is mandatory for all ABRCMS travel awardees. Guidelines and conference expectations will be discussed.

3:00 p.m. – 4:30 p.m.

CONCURRENT PROFESSIONAL DEVELOPMENT SESSIONS (5 session options)

Session 1

Presentation Techniques: How to Make Effective Poster and Oral Presentations

(Recommended for first-time presenters and non-presenters)

Effective communication is essential to each stage of a scientific career. This workshop offers strategies for making the most of every opportunity to attend a scientific meeting and present your work. Learn the essentials of designing compelling oral and poster presentations, including developing a clear conceptual framework, adding graphics, polishing delivery, and responding to questions.

Speaker

Shelley Payne, Ph.D., University of Texas at Austin, Austin, TX

Session 2

Graduate Student Life: Perspectives of Graduate Students

(Recommended for undergraduate, post baccalaureate, and graduate students)

Hear graduate students share their experiences in discussions that include goal-setting, selecting a mentor, time management, and balancing academic and social activities.

Speakers

To Be Determined

Moderator

Nicquet Blake, Ph.D., University of Texas at San Antonio Health Science Center, San Antonio, TX

Session 3

The A to Z of Networking

(Recommended for all student attendees)

Are you overwhelmed with meeting people? With LinkedIn? Join Dr. Rahhal as she walks through the networking process, starting from that first handshake to making and using business cards. She will also discuss email etiquette and get you started with LinkedIn. You will leave ready to make your LinkedIn profile and expand your network! Feel free to bring your laptop to create your LinkedIn profile and business cards during the session.

Speaker

Tojan Rahhal, Ph.D., Columbia, MO

Session 4

Entering Mentoring: Research Mentor Training for Faculty Working with Undergraduates

(Recommended for faculty)

Researchers often are not trained for their crucial role of mentoring their trainees. Based on the evidence-based Entering Mentoring series, this workshop is designed to help you become a more effective research mentor for diverse undergraduate trainees. The workshop will be led by Master Facilitators from the NIH National Research Mentoring Network (NRMN), part of a consortium whose goal is to provide all trainees across the biomedical sciences with evidence-based mentorship and professional development programming.

Through case studies, activities, and small-group discussion, participants will engage in an interactive experience aimed at promoting discovery and understanding of best practices in mentoring. Upon completion of the workshop, attendees will be able to articulate the core elements of mentoring, such as maintaining effective communication, establishing expectations, and addressing equity and inclusion, and will have practical tools, strategies, and resources to improve their mentoring practices.

Speakers

Steven Lee, Ph.D., University of California, Davis, CA

Kelly Diggs-Andrews, Ph.D., Diggs-Andrews Consulting, LLC, Ashburn, VA

Session 5

Strategies for Writing "Competitive" Proposals at Small Colleges and Universities

(Recommended for postdoctoral scientists and faculty)

This session will provide insights on how to engage in proposal writing after attending the overview workshops conducted by federal and other grant-funding agencies such as NIH, DOE, NSF, etc. These workshops are great at providing an overview, but faculty at small non-research-based, typically 4-year colleges and universities are required to carry a heavy teaching load and do not have adequate support or resources to engage in “competitive” proposal writing. In spite of this, it is possible to become a successful grant writer. This workshop will address strategies on how to overcome challenges that seem to diminish your capacity to write competitive proposals. The presenter has spent about 20 years at small colleges and universities and has been successful in securing more than \$5 million in federal grant funding during that period.

Speaker

Mark Melton, Ph.D., Saint Augustine's University, Raleigh, NC

4:45 p.m. – 5:45 p.m.

CONCURRENT PROFESSIONAL DEVELOPMENT SESSIONS

Session 1

Networking in Your Scientific Discipline (All Disciplines)

(Recommended for all attendees)

This informal session will focus on helping students transition to the next level—being involved with their disciplinary societies and attending professional society meetings. Disciplinary society members will lead the session, interact one-on-one with students, and discuss student-centered activities and programs offered by their organizations.

- *Biochemistry and Chemistry*
- *Cancer Biology*
- *Cell Biology and Molecular and Computational Biology*
- *Developmental Biology and Genetics*
- *Engineering, Physics, and Mathematics*
- *Microbiology and Immunology*
- *Neuroscience*
- *Physiology*
- *Plant Biology*
- *Public Health*
- *Social and Behavioral Sciences*

Session Leaders

To Be Determined

Session 2

The Science of Goal-Setting

(Recommended for postdoctoral scientists, faculty, exhibitors, and program directors)

This workshop addresses common challenges when setting goals, giving you the tools to set and achieve your personal and professional goals in a constructive and friendly environment. Goal-setting can be used as a key component of self-regulation, or the process by which employees activate and sustain cognition, behaviors, and affects, systematically oriented toward the attainment of goals. This is clinical talk for demonstrating an increase in passion and productivity.

Speaker

Glenn E. Daniels II, Stone Publishers, Denver, CO

6:30 p.m. – 7:15 p.m.

Dinner

7:15 p.m. – 8:00 p.m.

CONFERENCE WELCOME

Conference Overview

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

Opening Remarks

Avery August, Ph.D., Cornell University College of Veterinary Medicine, Ithaca, NY

Welcome Remarks

Stefano Bertuzzi, Ph.D., M.P.H., American Society for Microbiology, Washington, DC

Alison Gammie, Ph.D., National Institute of General Medical Sciences, NIH, Bethesda, MD

8:00 p.m. – 8:30 p.m.

OPENING KEYNOTE ADDRESS

Speaker

Speaker to Be Determined

8:45 p.m. – 10:00 p.m.

PREP Scholars Meet & Greet (By Invitation Only)

9:00 p.m. – 10:30 p.m.

Movie Night at ABRCMS: Hidden Figures

Thursday, November 2, 2017

7:00 a.m. – 7:45 a.m.

Breakfast

7:30 a.m. – 7:00 p.m.

Registration Open

8:00 a.m. – 12:00 p.m.

Exhibit Setup

8:00 a.m. – 9:00 a.m.

CONCURRENT PROFESSIONAL DEVELOPMENT SESSIONS (4 session options)

Session 1

Orientation for Undergraduates and Postbaccalaureates

(Mandatory for undergraduate and postbaccalaureate students)

This orientation sets the tone of the conference, provides an overview of ABRCMS, and prepares you to take advantage of the many opportunities available at the meeting. Featured topics include tips on following essential conference etiquette; making the best of a scientific meeting; navigating a national conference; establishing mentoring relationships; learning about networking opportunities and techniques; and maximizing professional growth opportunities.

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

Program Overview and Making the Most of ABRCMS

Speaker

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

Conference Announcements

Speaker

Irene Hulede, American Society for Microbiology, Washington, DC

Session 2

Getting Published: Advice for Graduate Students and Postdoctoral Scientists

(Recommended for graduate students, postdoctoral scientists, and early-career scientists)

Publishing your work is the key to expanding your success and influence in science. This session will help you choose a journal, prepare and submit your manuscript, deal with requests for revision, and cope with occasional rejection. It will also explain the ethics of scholarly publishing, including those related to authorship, multiple submissions, and redundant publication. The session ends with a Q&A period.

Speaker

Victor DiRita, Ph.D., Michigan State University, East Lansing, MI

Session 3

Mandatory Judges Meeting (All 12 Disciplines)

(Mandatory for all student presentation judges)

Forum to meet and network with judges in your scientific discipline, pick up your judging packet, meet your scientific discipline chair, and have your questions related to the judging process answered.

Session 4

Building Community for Deaf and Hard-of-Hearing Scientists

It is well documented that as their training level increases, underrepresented individuals in the nation's scientific workforce face barriers to success resulting in disproportionate numbers of "dropouts" compared to the majority population. The University of Rochester and Rochester Institute of Technology are collaborative

partners on two NIGMS-funded research training programs with a goal to increase the number of researchers who are deaf or hard-of-hearing (D/HH). We need to do more to bring the mentoring faculty who represent the majority, hearing, population to the pool of mentors for D/HH scientists. This presentation and panel discussion is led by D/HH trainees and faculty, as well as a hearing ASL interpreter and a hearing faculty member from the Rochester Bridges to the Doctorate Program (GM107739). We will share best practices and recommendations gained from personal experiences as trainees, mentors, and/or collaborators with D/HH scientists, who represent a linguistic and cultural minority population. At the end of this workshop, participants should be able to identify access services resources at their institution and gain a basic understanding, awareness, and respect of unique needs of D/HH scientists.

Speakers

Jessica Cuculick, Ed.D., Rochester Institute of Technology, Rochester, NY

Nikki Cherry, M.Ed., Rochester Institute of Technology, Rochester, NY

Steven Murdy, B.S., Rochester Institute of Technology, Rochester, NY

PJ Simpson-Haidaris, Ph.D., Rochester Institute of Technology, Rochester, NY

9:15 a.m. – 10:30 a.m.

CONCURRENT PROFESSIONAL DEVELOPMENT SESSIONS (5 session options)

Session 1

Picking the Perfect Ph.D. Program for You: Why Choose a School with a T32?

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

Because pursuing a doctorate requires a major investment of time and energy—at least four years of working as hard as you have ever worked and deferring earnings—picking the Ph.D. program that will provide you with the best chance of success is crucial. Clearly you want a program with research strengths that match your interests. This workshop provides you with strategies for answering several important questions: Is the program structure compatible with my strengths and goals? How successful is the program at producing Ph.D.'s? What careers are Ph.D.'s from the program 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?

Speakers

Sharon Milgram, Ph.D., National Institutes of Health, Bethesda, MD

Additional Speakers to Be Determined

Session 2

M.D.–Ph.D.—Is It Right for Me?

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

This session will provide you with information needed to decide if the M.D.–Ph.D. is the correct pathway for you; prepare and plan for the M.D.–Ph.D. admissions process; and create and submit a competitive application packet. Other topics include 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, and several M.D.–Ph.D. directors and administrators will be present to speak with students individually.

Speakers

Robin Lorenz, M.D., Ph.D., University of Alabama at Birmingham, Birmingham, AL

Juanita Merchant, M.D., Ph.D., University of Michigan, Ann Arbor, MI

Session 3

How Choosing the Right Advisor is Crucial for Success

(Recommended for undergraduate students [juniors and seniors], and postbaccalaureate students)

This session is for undergraduate students who are planning to go to graduate school. Information about how to pick a good graduate advisor/mentor will be given by comparing good and bad mentorship experiences. Students will learn strategies for making better informed advisor/mentor choices.

Speaker

J. Marcela Hernandez, Ph.D., The Ohio State University, Columbus, OH

Session 4

Research Ethics Cases for Training Undergraduate Researchers

(Recommended for graduate students doctoral, senior level, postdoctoral scientists, and faculty)

This session will describe our experience over four years in organizing a half-day workshop on responsible conduct of research. The audience has been undergraduate life science majors in REU programs. The themes of the workshop have included: data management and authorship; plagiarism (writing and ideas); interpretation and statistical analysis of data; the CRISPR revolution and ethical implications. The workshop features an introductory talk, discussions in small breakout groups led by graduate students, and a faculty panel who discuss questions raised in the small groups. These highly successful workshops are a paradigm for bringing RCR to undergraduates interested in research careers. The goal is to raise the awareness of ethical issues to undergraduates interested in research in the life sciences. The workshop will include introductory comments and small group discussions of the different scenarios that our team has developed.

Speakers

Colleen Kearns, Ph.D., Cornell University, Ithaca, NY

Laurel Southard, M.S., Cornell University, Ithaca, NY

Session 5

Imagining and Defining the Grant that Will Fund Your Postdoc

(Recommended for graduate students and postdoctoral scientists)

Grant opportunities are more plentiful during the postdoctoral training period than at any other point in a scientist's career, yet many trainees shy away from even trying to land their own postdoctoral funding. This workshop will start with an interactive exercise that will help each participant define an ample range of potentially interested funders. Then the group will focus on an exercise that will help trainees reimagine their current research in terms of one or more coherent, fundable lines of work. Finally, trainees will choose one of these lines of work to develop into a page of strategic aims to take back to the lab and continue developing into a grant application.

Speakers

Giselle Parker, Ph.D., National Science Foundation, Arlington, VA

Victoria McGovern, Ph.D., Burroughs Wellcome Fund, Research Triangle Park, NC

Christine O'Brien, National Academies, Washington, DC

Session 6

NIGMS Program Director Discussions

(Mandatory for TWD program directors)

The directors of the specific programs (e.g., IMSD, RISE, and PREP) will meet for approximately the first hour, and then staff members from the National Institute of General Medical Sciences (NIGMS) will be invited during the last 45 minutes for further discussion. Meetings will be arranged by program areas and held in separate rooms assigned by TWD programs.

- *PREP Programs*
- *IMSD Programs*
- *T32 Programs*
- *RISE Programs*
- *Bridges Programs*
- *IDeA and SCORE Programs*
- *F30 Programs*
- *MARC and F31 Programs*
- *BULD/NRMN/CEC Programs*

10:45 a.m. – 11:45 a.m.

CONCURRENT PROFESSIONAL DEVELOPMENT SESSIONS (5 session options)

Session 1

Career Pathway in Industry, Government, and Research Organization: What's Next?: Beyond the Academy

(Recommended for all students)

There is no single right way to choose a career path. A career can be carefully designed and executed to the letter, or it can even develop through a series of circumstances that fall into place over time. Either way, a career is a journey that we navigate as we learn from our experiences. In this session, speakers will share their personal journey to the Ph.D., their approach to careers outside the traditional academic path, and how STEM degrees are leveraged in their current workplace. Best practices for crafting a stand-out resume, interviewing, and landing a job offer will be shared.

Speakers

Annette Angus, Ph.D., Scientist II, R&D, the Clorox Company, Oakland, CA

Ruan Cox, Ph.D., Industry Alliance Development Associate, Moffitt Cancer Center, Tampa, FL

Maiysha Jones, Ph.D., Senior Clinical Scientist, R&D, the Procter & Gamble Company, Cincinnati, OH

Adrian Land, Ph.D., Microbiologist, U.S. FDA, Washington, DC

Session 2

Career Pathways in Biotech And Pharma Launch your Career in Industry: Become the Standout Candidate

Sponsored by Genentech

(Recommended for undergraduate students, and graduate students/postdoctoral researchers)

Representatives from several pharmaceutical companies (Biodesix, Genentech, and Novartis) will share their insights and advice to help you excel through the hiring process. Learn how to utilize your network to search for opportunities in industry, refine your resume, and ace the interview. Panelists will share their journey and present examples on how to communicate your experience and passion for science to stand out as a compelling and competitive interview candidate.

An industry expert panel will present a general overview of how to search for industry opportunities, enhance your resume, and prepare for an interview. The goal is for attendees to learn to network and land an opportunity of interest through targeted resume writing and interview preparation. Session attendees will learn about the STAR-Model (Situation, Task, Action, Result), an open question technique used by interviewers to

explore situations and contexts in the candidate's past experience. Attendees will leave knowing how to successfully answer questions during phone and in-person interview situations using the STAR model.

Speakers

Pam Leung, University Talent Acquisition and Strategy Sr. Program Manager, Genentech, San Francisco, CA

Jonathan Zarzar, Engineer II (Late Stage Pharmaceutical Development), Genentech, San Francisco, CA

Alex Gaither, Ph.D., Novartis, Cambridge, MA

Gary Pestano, Ph.D., VP of Product Development and Operations, Biodesix, Boulder, CO

Session 3

Biomedical Innovation & Entrepreneurship

(Recommended for all attendees)

In this workshop/discussion group, participants will learn the basic framework through which discoveries in biomedicine are translated into real-world healthcare solutions through technology commercialization, entrepreneurship, and innovation, with an emphasis on how students can get involved. Topics will include patents and intellectual property, how start-up companies are formed and grow, different kinds of academia-industry partnerships, and misconceptions in market opportunities.

Speaker

Carolyn Dealy, Ph.D., University of Connecticut Health Center, Storrs, CT

Session 4

How We Learn...and How We Don't

(Recommended for all attendees)

Changes in the functional capacities of learners are visible manifestations of changes in the physical structure of the brain. Although we seldom think of learning experiences as brain-reorganization activities, they most certainly are precisely that. We will look at why formal education often fails to make substantive and lasting changes in how we think and behave, and we'll consider how to design learning experiences that lead to advantageous changes in cognition, affect, and behavior, all of which are components of expertise in every discipline.

Speaker

Robert A. Duke, Ph.D., University of Texas at Austin, Austin, TX

Session 5

Insider's Guide to NIH Peer Review and Getting an NIH Fellowship or Grant

(Recommended for graduate students, postdoctoral scientists, and faculty)

If you want to get a fellowship or research grant from the National Institutes of Health (NIH), you must first successfully navigate the NIH peer review system. This seminar will help you put your best foot forward by giving you key insights into the NIH application submission and review processes; insider tips on what reviewers are looking for, and how to write fellowship and grant applications that might impress them; and opportunities to be part of the peer review process.

Speaker

Lisa Steele, Ph.D., National Institutes of Health, Bethesda, MD

12:00 p.m. – 12:45 p.m.

Networking Lunch

12:45 p.m. – 1:45 p.m.

PLENARY SCIENTIFIC SESSION

From Monitoring Microbes in the International Space Station to Building Houses on Mars: A Path that Will Require the Contributions of a Diverse Community

Learn about the development of the water and air systems currently operating in the International Space Station, from a scientist/microbiologist point of view. Learn the path that led the speaker from college to NASA as well as her transition from scientist to NASA manager. You will also learn about the NASA program that encourages community involvement in the development of technologies needed for the future missions to Mars.

Speaker

Monserate (Monsi) Roman, M.S., NASA Space Station, Huntsville, AL

1:45 p.m. – 5:30 p.m.

Exhibits Open

2:00 p.m. – 3:15 p.m.

POSTER SESSION 1 (A)

3:30 p.m. – 4:45 p.m.

POSTER SESSION 2 (B)

5:30 p.m. – 6:45 p.m.

ORAL PRESENTATION SESSIONS (All 12 Disciplines)

7:00 p.m. – 7:45 p.m.

Dinner

8:00 p.m. – 9:00 p.m.

PDO Steering Committee Meeting (By Invitation Only)

8:00 p.m. – 9:30 p.m.

PROFESSIONAL DEVELOPMENT SESSIONS (3 session options)

Session 1

STEM Career Choices/Gateway to the Future: Conversations with Scientists

(Recommended for undergraduate, postbaccalaureate, and graduate students)

In this session, research scientists from a variety of career sectors will engage students in small-group discussions focused on “a day in the life of a research scientist.” The session will explore the wide variety of careers available in the biomedical sciences, the physical sciences, engineering, and the behavioral sciences, as well as the many types of training that can help students reach their goals. Scientists will discuss their career pathways, their educational backgrounds, what they enjoy about their work, and their strategies for professional and personal life balance. Participants will gain a clearer understanding of why graduate training (including postbaccalaureate, master’s, and doctoral programs) is the gateway to future opportunities. Career sectors include pharma/biotechnology/industry, media/communications/nonprofits, research-intensive academic/staff scientists, undergraduate teaching academic/community colleges, M.D.–Ph.D.’s in academic health centers (medical schools), and government/policy/foundation/law.

Moderator

Maiysha Jones, Ph.D., Senior Clinical Scientist, R&D, the Procter & Gamble Company, Cincinnati, OH

Session 2**Job Search Strategies: Effective Interviewing Skills and Negotiating the Job Offer**

(Recommended for senior graduate students, postdoctoral scientists, and junior faculty)

No one can land a job without interviewing, and no one should accept a position unless the compensation package is fair and equitable. Improving your interviewing skills will enhance your ability to effectively communicate your value to the hiring committee and increases your odds of landing your position of choice. Furthermore, understanding the many components of compensation packages will help you make informed employment decisions as you move forward with your career. Strategies on the negotiation process will be discussed along with whether you should negotiate and what can and cannot be negotiated.

The intended outcomes from this program are to improve your interviewing techniques and awareness, as well as to learn how to negotiate in a professional, logical, and respectful manner. Attendees will also learn the important elements of CVs/resumes and cover letters, including strategies for how to showcase your particular knowledge and experiences effectively. Actual interview questions from industry and academic institutions will be provided as handouts.

Speaker

To Be Determined

Session 3**Be the CURE: Leveraging the Classroom for Undergraduate Research**

(Recommended for postdoctoral scientists, faculty and program directors)

Successful and sustainable undergraduate research programs in the biological sciences are underpinned by curricula that provide students with the necessary training and methodology to be successful in research environments. One evidenced-based approach to integrating teaching and research is the implementation of course-based undergraduate research experiences (CUREs). Specifically, CUREs offer the capacity to involve many students and can be integrated into introductory-level courses and scaffolded throughout the undergraduate degree program. Herein, we present an institutional model implemented at Virginia Union University, a small, private liberal arts institution.

The presentation content will further the understanding of the impact of early and continuous exposure of undergraduate students to teaching and research on academic achievement and persistence in biological sciences. In addition, CUREs provides a novel approach for enabling faculty to develop research programs in resource-challenged environments. The biology undergraduate research training program will serve as an institutional model for engaging students in discipline-specific research, particularly at small liberal arts universities that lack a research infrastructure.

Speaker

Carleitta Paige-Anderson, Ph.D., Virginia Union University, Richmond, VA

Friday, November 3, 2017

7:00 a.m. – 7:45 a.m.

Breakfast

7:30 a.m. – 5:00 p.m.

Registration Open

8:00 a.m. – 9:00 a.m.

CONCURRENT SCIENTIFIC SESSIONS (8 session options)

Session 1

Friend or Foe: Neuroimmune Responses in the Brain

Brain-immune interactions involve a wide range of cells and mediators coordinated through pathways in the central nervous system. The interactions work as both friends and foes within the body. Beneficial responses help to maintain a healthy brain state in the face of diverse harmful challenges from toxins, infective agents, or injury. However, dysfunction and inappropriate regulation of inflammatory or neuronal responses also underlie many neurological diseases. This neuroscience session will feature research presentations from two role model speakers. Candice Brown, Ph.D., will describe her research on understanding how prior acute systemic infections influence stroke severity and accelerate cognitive decline in mouse models of sepsis, ischemic stroke, and Alzheimer's disease. Edjah Nduom, M.D., will describe his bedside-to-bench research that studies the immune system as the front line of defense against abnormal cells of brain tumors.

Speakers

Candice Brown, Ph.D., University of West Virginia, Morgantown, WV
Edjah Nduom, M.D., National Institutes of Health, Bethesda, MD

Session 2

The Toxic Sins of Our Ancestors
Sponsored by [Society of Toxicology](#)

The goal of this interactive session is to introduce students to the field of epigenetics (what is the epigenome; how does it regulate gene expression) and then discuss some of the recent findings in the field that describe transgenerational effects stemming from environmental exposures. The session will guide attendees in thinking through some of the caveats of past studies and then present some new evidence supporting a transgenerational phenomenon.

Speaker

Patrick Allard, Ph.D., University of California, Los Angeles, CA

Session 3

A Tale of Two Metals

Metals play a vital role in all living organisms. They are cofactors or structural components in at least 40% of proteins. To bacteria, some metals are essential for survival and some are harmful. Two metals that the lab at the University of Arizona studies are calcium and copper. Learn how calcium is beneficial to *Pseudomonas aeruginosa*, specifically with bacterial motility, adhesion, and virulence, and how copper is toxic to *Streptococcus pneumoniae*, specifically by curbing virulence and crippling the bacteria's ability to replicate.

Speaker

Michael Johnson, Ph.D., University of Arizona, Tucson, AZ

Session 4

Precision Medicine Research: Where Genomics Meets Big Data Biomedical Informatics

Precision medicine is often described as prescribing the right drug at the right dose the first time. This concept has since expanded to include lifestyle, environmental, and various "omics" data in tailoring prevention and treatments. While the overall concept is not new, recent technological advances such as the adoption of

electronic health records and contemporary genomic methods have made it possible to collect the data necessary to translate research into clinical action. In this session, we will describe how the decade of genomic discovery coinciding with the rise of big data biomedical informatics paved the path to precision medicine research.

Speaker

Dana Crawford, Ph.D., Case Western University, Cleveland, OH

Session 5

Protein Structures: Producing, Using, and Teaching about Life's Building Blocks

Does your research or classroom require using 3D macromolecular models of protein or nucleic acids? Attend to learn about techniques such as X-ray crystallography, NMR, and cryo-EM that determine such structures; Protein Data Bank database resources that support scientific research and education; and a learning goal framework to assess students' visual literacy skills when teaching about biomolecules (BioMolViz.org).

Speakers

Shuchismita Dutta, Ph.D., Rutgers, The State University of New Jersey, Piscataway, NJ
Krystle McLaughlin, Ph.D., Lehigh University, Bethlehem, PA

Session 6

Imaging Mass Spectrometry Reveals Early Events in Cancer and Microbial Colonization of Hosts

Sponsored by the American Society for Microbiology

The strength of imaging mass spectrometry (IMS) is its ability to not only to detect molecular signatures of interest in a sample but to unveil their spatial distribution. This power technique can be adapted to almost any system, especially those that have spatial requirements in their natural setting. For example, high-grade serous ovarian cancer (HGSC) is responsible for a leading number of female-related cancer deaths due to the extreme difficulty in detecting the disease prior to tumor development. A p53 signature initiates the cascade toward HGSC and is called a serous tubal intraepithelial carcinoma (STIC). During ovulation, the ovary swells and the single epithelial layer breaks apart, exposing the collagen in the ovary interior. The swollen ovary and the fallopian tube come into very close contact with one another, and a poorly understood exchange occurs that induces the implantation of the ectopic STIC cell into the collagenic interior of the ovary. Therefore, in collaboration with Joanna Burdette's lab, we have optimized an experimental design using IMS that is capable of capturing the exchangeable chemistry during the early stages of HSGC initiation. We have also used IMS to explore the early colonization between microbes and hosts and biofilm development.

Speaker

Laura Sanchez, Ph.D., University of Chicago, Chicago, IL

Session 7

Investigating the Interaction between Arginine 8 Methylation and Serine 10 Phosphorylation in Histone H3

Protein arginine methyltransferases (PRMTs) methylate arginine residues in FOXO1 and BAD proteins at sites with overlapping kinase motifs. Thus, this modification blocks the kinase, Akt, from phosphorylating neighboring serine residues. We expect that a similar crosstalk between methylation and phosphorylation is occurring in histone H3, whose N-terminus contains an RXS motif, a sequence with overlapping kinase (MSK1) and methyltransferase (PRMT5) motifs. We set out to determine whether the addition of a phosphate group to serine 10 (H3S10p) will block all types of methylated arginine products in neighboring arginine 8 (H3R8). *In vitro* studies using phosphorylated peptides based on histone H3 and full-length histone H3 are used to demonstrate this interplay. Specific methylated H3R8 modifications are detected through autoradiography and mass spectrometry, while noncovalent interactions between phosphorylated serine and unmodified/modified

arginine residues are investigated by NMR. Phosphorylation at H3S10 blocks H3R8 methylation by PRMT1 and PRMT5, indicating an interplay between these modifications. Phosphorylation creates a salt-bridge interaction with unmodified arginine, preventing its methylation. Specific combinations of posttranslational modifications (PTMs) on the N-terminal tail of histone proteins can determine patterns of gene expression. Thus, investigating the crosstalk between PTMs on histone proteins provides a deeper understanding of gene regulation.

Speaker

Cecilia Zurita Lopez, Ph.D., California State University, Los Angeles, CA

Session 8

Cell Engineering and Biomaterial Strategies for Tissue Engineering

The Allen lab has three main research thrusts in cellular engineering, biomaterials, and the study of dynamic environmental conditions. The focus of this seminar will be recent work in these three areas as it relates to cardiovascular disease and vascular tissue engineering. Our work in cellular engineering is motivated by the continued challenge to control cellular processes, including stem cell differentiation. Our lab's approach is the development of receptor agonists in the form of nucleic acid aptamers. We have fabricated a novel divalent aptamer assembly that shows agonist function toward vascular endothelial growth factor receptor-2, leading to downstream pathway activation. Our biomaterials work involves the creation of a biomimetic nanofibrous scaffold composed of an elastomeric polymer combined with collagen and elastin proteins. These biphasic scaffolds are biologically compatible, mechanically robust, and compliant, and show great promise as a vascular scaffold. Lastly, our work to study vascular cells exposed to dynamic environments such as microgravity will be presented. There exists a correlation between microgravity and the onset of cardiovascular deconditioning; this work aims to utilize this extreme environment to study changes in vascular repair cells.

Speaker

Josephine Allen, Ph.D., University of Florida, Gainesville, FL

9:15 a.m. – 10:15 a.m.

PLENARY SESSION

Race, Class, and Government Services: How We Got Here, How We Move Forward

In this lecture Professor Ian Haney López uses photos, graphs, and videos to explore how political discourses on race and class have influenced public perceptions and public policy. Rejecting any simple story of malevolent and obvious racism, Haney López analyzes the use of race in recent political campaigns, placing it into a larger historical context, and asks how we can build social solidarity across racial, class and party lines and rekindle wide support for a government that actually helps people.

Speaker

*Ian F. Haney López, Earl Warren Professor of Public Law, UC Berkeley
Director, Racial Politics Project, Haas Institute for a Fair and Inclusive Society
Senior Fellow, Demos, Berkeley, CA*

10:15 a.m. – 12:00 p.m.

Exhibits Open

10:30 a.m. – 11:45 a.m.

POSTER SESSION 3 (C)

12:00 p.m. – 12:45 p.m.

Networking Lunch

12:45 p.m. – 1:45 p.m.

PLENARY SESSION

Public Health and Science, Technology, Engineering and Mathematics

(Recommended all attendees)

The influence of science, technology, engineering, and mathematics (STEM) are pervasive in the practice of public health. This plenary session will provide participants who have limited or no public health knowledge with a definition of public health, describe how STEM disciplines are used in the practice of public health and provide examples of programs and initiatives utilizing STEM to support public health research, surveillance, program and policy development.

Speaker

Hazel D. Dean, ScD, DrPH (Hon), FACE, Centers for Disease Control and Prevention, Atlanta, GA

2:00 p.m. – 3:00 p.m.

CONCURRENT PROFESSIONAL DEVELOPMENT SESSIONS (8 session options)

Session 1

Effective Personal Statement for Getting into Highly Competitive Graduate Schools and Summer Programs

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

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

Speakers

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

Victoria Freedman, Ph.D., Albert Einstein University, New York, NY

Session 2

Imposters, Resilience, and Academy Training

(Recommended for all attendees)

Demonstrating resilience through challenging situations is a critical part of graduate and professional success. Building resilience is a process composed of engaging both our environment and people in a way that promotes well-being and “competent functioning.” This process must continuously evolve as we face new challenges. During training, adversity can come in the form of demanding workloads, challenging relationships, research lows, financial challenges, health problems, etc. Varying degrees of “Imposter Syndrome” or feeling fraudulent can further compound our ability to navigate challenges. Participants will examine their own coping strategies; identify characteristics of resilient people and consider how they might develop those attributes; consider how “Imposter Fears” influence resiliency, and develop strategies for combating negative head tapes; identify resources available to help them develop and sustain resilience; and design an action plan to incorporate strategies for resilience into their daily routines.

Speakers

Diana Azurdia, University of California, Los Angeles, Los Angeles, CA

Sharon Milgram, Ph.D., National Institutes of Health, Bethesda, MD

Session 3

Dark Matters: A Look at “Black Holes” as Metaphor for Mitigating Risk and Increasing STEM Student Success

(Recommended for all attendees)

Renetta Garrison Tull and Damon Tull met as incoming graduate students during a reception for underrepresented students at Northwestern University. Renetta and Damon, graduates of Howard University and Rensselaer Polytechnic Institute respectively, married in graduate school and later joined the faculty of the University of Wisconsin–Madison. Damon’s lab studied biomedically motivated image processing, and Renetta’s lab examined voice technologies for users with non-prototypical vocal pathologies. Throughout their careers in academic, entrepreneurial, and nonprofit sectors, they have continued to observe inequities in STEM mentoring. They are passionate about championing interventions that retain underrepresented minority students and faculty in engineering. They have been invited to share their paper on “Dark Matters” and metaphorical black holes at STEM conferences, and they use metaphors from physics such as “gravitational pull” and “event horizon” to explore reasons why talented, diverse scholars leave STEM. They also share recommendations for improving mentoring practices. The Tulls’ work seeks to increase recruitment and retention of diverse scholars throughout the STEM pipeline.

Speakers

Damon Tull, Ph.D., ASEP, CSM, American Society for Engineering Education, Washington, DC

Renetta Garrison Tull, Ph.D., University of Maryland Baltimore County, Baltimore, MD

Session 4

Goal-Setting and Time Management

(Recommended for all students)

Setting goals is an excellent way to provide you with direction and purpose. The more you can clearly define your goals (and revise them as needed), the more likely you are to achieve success. Goals can help you channel your energy toward meaningful activities as you continue along your journey. The purpose of this workshop is to help you accomplish your goals through an organized process made easy for you.

Speaker

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

Session 5

Living and Working with a Disability as a Student in the Sciences

(Recommended for faculty, exhibitors and program directors)

Persons with disabilities are underrepresented in science, technology, engineering, and mathematics (STEM) research training programs. As a student or postdoctoral scholar in the sciences living with a disability, you may be unaware of others with similar experiences who can serve as peers or role models. This session will highlight barriers that young scientists with disabilities in STEM face, as well as potential solutions. This session will highlight strategies for success in navigating your path to a career in the sciences. Finally, we will present a model for the application of universal design principles to STEM training.

Speaker

Mahadeo Sukhai, Canadian National Institute for the Blind, Toronto, Ontario

Session 6

Advice for the Advisors: Helping Your Students Become Successful Ph.D. Applicants

(Recommended for faculty and program directors)

The session will explore how to help students learn about graduate opportunities, the best ways to prepare students for the Ph.D., and strategies to help students successfully navigate the Ph.D. admissions process. The session will consist of an informative slide presentation followed by an interactive panel discussion in which particular Ph.D. admissions scenarios and problems will be discussed. Then, using facilitated small group discussion (an active learning technique), attendees will work together with the panelists on specific advising questions and problems to develop approaches to help their students succeed.

Speakers

Nancy Schwartz, Ph.D., University of Chicago, Chicago, IL

Nancy Street, Ph.D., University of Texas Southwestern Medical Center, Dallas, TX

Session 7

Graduate Opportunities in Public and Global Health Research

(Recommended for undergraduate students)

This session will draw on the natural sciences and mathematics, as well as economics and social and cultural sciences, to address public and global health research as a model for interdisciplinary education and training. Participants will learn about graduate opportunities in public health and global health research, including steps for pursuing advanced degrees and succeeding in the field.

Speakers

Prasad Kuduville, Ph.D., American Society for Microbiology, Washington, DC

Hazel D. Dean, ScD, DrPH (Hon), FACE, Centers for Disease Control and Prevention, Atlanta, GA

Session 8

TWD-PDO Meeting (Organized by NIGMS Program Director Association)

(Mandatory for TWD program directors)

TWD-PDO program directors will meet as a group for the first hour and the NIGMS staff members will be invited to join the meeting for the second half-hour.

Moderator

Barry Komisaruk, Ph.D., Rutgers University, Newark, NJ

3:00 p.m. – 6:00 p.m.

Exhibits Open

3:15 p.m. – 4:30 p.m.

POSTER SESSION 4 (D)

4:45 p.m. – 6:00 p.m.

POSTER SESSION 5 (E)

5:00 p.m. – 5:45 p.m.

MENTORING SESSION

Speaker

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

6:15 p.m. – 7:15 p.m.

ABRCMS Feedback Session—Open Forum

(Recommended for exhibitors, program directors, faculty, postdoctoral scientists and students)

ABRCMS leadership and staff invite all attendees to provide feedback about the 2017 Conference. Your input is valuable to the success of the conference.

Moderators

Avery August, Ph.D., Cornell University, Cornell, Ithaca (ABRCMS Chairperson)

Irene Hulede, American Society for Microbiology, Washington, DC, (ABRCMS Project Manager)

7:15 p.m. – 8:15 p.m.

MAPRS Program Director Meeting (By Invitation Only)

NRMN Meet & Greet (By Invitation Only)

7:15 p.m. – 8:15 p.m.

CONCURRENT PROFESSIONAL DEVELOPMENT SESSIONS (7 session options)

Session 1

Confessions of Admission Officials: What We Look at, and For, in Graduate School Applications

(Recommended for undergraduate and graduate students)

What do admissions committee members look for when they review graduate school applications? This session will discuss the various components of graduate applications in STEM programs from the reviewer's standpoint. Sharing common pitfalls observed by admissions committees, faculty and staff from some of the nation's most prominent graduate institutions will share with you a step-by-step guide for achieving success.

Speakers

Gustavo Arrizabalaga, Ph.D., Indiana University, Indianapolis, IN

Robert Binder, Ph.D., University of Pittsburgh, Pittsburgh, PA

Colleen Gabauer, Ph.D., Purdue University, West Lafayette, IN

Session 2

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

(Recommended for undergraduate and postbaccalaureate students)

This session focuses on test-taking strategies and provides valuable information about resources for preparing for standardized admissions tests, particularly the GRE and MCAT. It is important to note that the 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

Laurie Connor, Ph.D., Baylor School of Medicine, Houston, TX

Session 3

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

(Recommended for undergraduate and postbaccalaureate students)

This session focuses on test-taking strategies and provides valuable information about resources for preparing for standardized admissions tests, particularly the GRE and MCAT. It is important to note that the 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.

Speakers

Sandra Oyewole, Ph.D., Trinity University, Washington, DC

Session 4

Postbaccalaureate Programs and Tips for Submitting a Successful Application

(Recommended for students considering postbaccalaureate training)

Many students consider postbaccalaureate training prior to applying to graduate school, and the NIH has the largest postbaccalaureate training program in the country. The session will focus on the NIH postbaccalaureate program details and requirements, including the nuts and bolts of submitting a successful application. Information and resources on other U.S. postbaccalaureate programs will also be presented.

Speakers

Sharon L. Milgram, Ph.D., National Institutes of Health, Bethesda, MD

Additional Speaker to Be Determined

Session 5

Postdoc Fundamentals: Selecting a Training Experience to Match Your Career Goals

(Recommended for graduate students and postdoctoral scientists)

Doctoral graduate students will learn how postdoctoral training can enhance their career goals. Presenters from the life and social sciences will describe the different postdoc types, advisor & project selection considerations, sources of funding, and resources for professional development. Relevant diversity-related information can be found at our portal MinorityPostdoc.org.

Sibby Anderson-Thompkins, Ph.D., University of North Carolina at Chapel Hill, Chapel Hill, NC

Alberto Roca, Ph.D., DiverseScolar, Irvine, CA

Session 6

Interviewing for M.D.–Ph.D. Programs

(Recommended for undergraduate students)

This session will define the timeline for preparing and applying for admission into *M.D.–Ph.D.* Programs. Speakers and panelists will critique the specific components of the *M.D.–Ph.D.* application and describe the criteria used to evaluate the credentials of applicants and the profile of students who enter *M.D.–Ph.D.* training programs. Participants will understand the interview process for *M.D.–Ph.D.* applicants. Speakers will be available for one-on-one counseling immediately following the session.

Speakers

Robin Lorenz, M.D., Ph.D., University of Alabama, Birmingham, AL

Joseph Barbieri, Ph.D., Medical College of Wisconsin, Milwaukee, WI

Session 7

Presenting Your Research (Doesn't Have to Be a Nightmare for You or Your Audience)

(Recommended for all attendees)

Doing research is only half of your job as a scientist—the other half is communicating your work to colleagues and the public. Talking about your research can be intimidating, but presenting effective, engaging talks and posters is a skill that anyone can learn. Like any skill, it requires hard work, listening to feedback, self-reflection, and practice. Dr. Barolo will introduce strategies for dealing with nervousness; telling a clear and compelling story about your science; creating effective posters, graphics, and slides; and connecting with your audience. A list of helpful resources will be provided for further study.

Speaker

Scott Barolo, Ph.D., University of Michigan, Ann Arbor, MI

8:30 p.m. – 10:00 p.m.

Two options for fun!

Movie Night at ABRCMS: The Immortal Life of Henrietta Lacks

LGBTQ Meet and Greet

Saturday, November 4, 2017

7:00 a.m. – 7:45 a.m.

Breakfast

7:30 a.m. – 1:00 p.m.

Registration Open

8:00 a.m. – 9:15 a.m.

ORAL PRESENTATION SESSIONS (All 12 Disciplines)

9:15 a.m. – 12:15 p.m.

Exhibit Hall Open

9:30 a.m. – 10:45 a.m.

POSTER SESSION 6 (F)

11:00 a.m. – 11:45 a.m.

MENTORING SESSION

Navigating Your Mentoring Relationships with a MAP (Mentoring Action Plan) for Mentees

Succeeding in science is facilitated by helpful mentors. But this doesn't mean passively following your mentors—you must pro-actively “mentor up” as you engage with your mentors. In this highly interactive workshop, you will learn to develop and use a Mentoring Action Plan (MAP) to navigate mentoring relationships to meet your goals. You will also learn how to make current mentoring relationships more effective, and identify and develop SMART goals for your mentoring relationships. The presenter will provide practical advice from our extensive experiences in mentoring relationships.

Speaker

Steven Lee, Ph.D., University of California, Davis, CA

12:30 p.m. – 1:15 p.m.

Networking Lunch

1:00 p.m. – 4:00 p.m.

Exhibit Takedown

1:15 p.m. – 2:15 p.m.

CLOSING KEYNOTE ADDRESS

Becoming Dr. Q: An American Dream like No Other Speaker / This is Your Brain on STEM: Making the Case for Careers in Science, Technology, Engineering, and Math

Speaker

Alfredo Quinones, M.D., Mayo Clinic, Tallahassee, FL

2:45 p.m. – 3:30 p.m.

CONCURRENT PROFESSIONAL SKILLS CAFÉ SESSIONS FOR STUDENTS (7 session options)

These 45-minute sessions will help students gain a broad appreciation for career exploration and the job search process. Select two sessions to attend during this timeframe. But don't worry, they are repeated at 3:45 p.m. so you can attend more! Sessions are offered in a small-group setting where students can bring specific questions to the experts.

Session 1

Building Your Brand Starts NOW

(Recommended for students)

What brand of scientist are you? Are you the technical guru who can solve any problem, or are you the communicator who can translate complex concepts into simple language? When people think of you, what image comes to mind? Is your digital footprint, i.e., your Instagram, Facebook, Twitter, Snapchat account, an accurate reflection of you? The way you are perceived in person and online is how you will be defined. Your brand is more than goggles and a lab coat. It represents a promise of quality which reflects your values, skills, strengths, passions and growth areas. Whether you seek a traditional STEM role in a corporate, academic or government sector, or an alternative career utilizing the skills you have gained, building a personal brand is a valuable career development strategy for both students and professionals. Building a strong personal brand NOW will help demonstrate your value in the job marketplace, and ultimately help secure the career of your dreams.

Speaker

Marquita Qualls, Ph.D., Entropia Consulting, Nashville, TN

Session 2

Bridging the Gap: Supporting the Academic Success of Nontraditional / Community College Students at 4-Year Institutions

(Recommended for community college and nontraditional students, faculty, and program administrators)

Nontraditional students comprise more than 70% of all students enrolled in undergraduate programs (National Center for Education Statistics [NCES]). However, the current campus climates at 2-year and 4-year institutions still prioritize the needs of traditional undergraduate students over nontraditional students. This will be an interactive session for students, faculty, staff, and program administrators to discuss the emerging needs of nontraditional students attending community colleges and 4-year higher education institutions by sharing collective experiences, perspectives, and best practices. The purpose of this discussion is to help develop strategies that may be implemented at various types of institutions to establish a more welcoming and inclusive institutional climate for nontraditional and community college students.

Speakers

L'Aurette Johnson, Ph.D., M.S., University of Minnesota College of Pharmacy, Minneapolis, MN

Janice Reuben, B.A., University of Michigan Center for the Education of Women, Ann Arbor, MI

Jayne Reuben, Ph.D., Texas A&M University College of Dentistry, Dallas, TX

Tracy Womble, Ph.D., Florida A&M University, Tallahassee, FL

Session 3

Blogging, Tweeting, and Writing to Promote Your Career and Diversify Science

(Recommended for all attendees)

Blogging and social media tools are modern ways to discuss science, to publicize your accomplishments, and to engage the public. We will describe examples from the MinorityPostdoc.org Diversity Bloggers roster and from communities such as the #BLACKandSTEM Twitter chats. We will also highlight resources such as the

new book *Science Blogging: The Essential Guide* that the presenters helped write. Learn how to translate these science communication skills into a potential journalism career covering topics such as science, health, technology, and the environment. These skills can help diversify science by telling the stories not found in the mainstream media.

Speakers

Danielle Lee, Ph.D., Cornell University, Ithaca, NY

Stephani Page, Ph.D., University of North Carolina at Chapel Hill, Chapel Hill, NC

Session 4

Resume or CV?

(Recommended for all attendees)

Are you confused about the difference between a resume and a CV and what is appropriate for school and/or job applications? Come discuss tips on putting your best foot forward in these critical school and job search documents.

Speaker

To Be Determined

Session 5

What You Can Do with a Ph.D.: The Biomedical Workforce and Me! Using Workforce Data To Guide Career Development

(Recommended for all attendees)

Many students interested in the STEM disciplines are unaware of career options available to them. Moreover, having once identified a career goal, many are uncertain as to what skills they must master to successfully secure positions. We will present a process by which we help our trainees through their career exploration by generating workforce data to guide their career development programming. Students, program administrators, and faculty will learn how to determine the available positions and skills requested by hiring managers for biomedical Ph.D.'s in various career tracks. Case studies will promote discussion and encourage the audience to think about what career options they should consider and how to work toward achieving their career goals.

Speakers

Linda Hyman, Ph.D., Boston University, Boston, MA

Lynese Wallace, M.P.H., Boston University, Boston, MA

Session 6

"I Wish My Mentor Knew": Advice from Experienced Biomedical Research Mentors

(Recommended for graduate students and postdoctoral scientists)

Attendees will participate in discussions related to sensitive issues facing trainees who are pursuing careers in the biomedical sciences. Questions related to race, gender, sexual identity, disability, pedigree, and privilege will be addressed by a panel of senior mentors associated with the National Research Mentoring Network (NRMN) and Keystone Symposia. Mentors will respond to previously submitted anonymous posts that complete the phrase "I Wish My Mentor Knew." Audience members will also have an opportunity to submit their own anonymous questions during the event.

Speakers

Rafael Luna, Ph.D., Boston University, Boston, MA

Irelene Ricks, Ph.D., Keystone Symposia, Silverthorne, CO

Session 7

Making the Most of your Mentor-Mentee Relationships

Every successful scientist relies on a productive mentor-mentee relationship. This session will explore the properties one should look for in a mentor. Importantly, we will also discuss ways mentees can be prepared to be mentored well. We aim to identify best (and worst) practices in building a productive and rewarding mentor-mentee relationship. As a result of the session, which will involve a combination of lecture-based, group discussion, and question-and-answer format, participants will be able to identify mentors that support their career goals, realize the potential need to recruit additional supportive mentors, and ultimately, to function as a productive mentor for others.

Speakers

William Mahoney, Ph.D., University of Washington, Seattle, WA

Eric Nealy, B.S., University of Washington, Seattle, WA

3:45 p.m. – 4:30 p.m.

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Speakers

William Mahoney, Ph.D., University of Washington, Seattle, WA

Eric Nealy, B.S., University of Washington, Seattle, WA

2:45 p.m. – 5:00 p.m.

CONCURRENT PROFESSIONAL DEVELOPMENT FOR POSTDOCS, FACULTY, AND ADMINISTRATORS

Session 1

Implementing the workshop: “Do You Play Fair? A Workshop about Bias in Academia”

(Recommended for faculty, program directors, and exhibitors)

This presentation is designed for people who are interested in implementing the workshop, *Do You Play Fair? A Workshop about Bias in Academia* at their institutions. Attendees who participated in the 2015 or 2016 preconference *Fair Play* workshops are welcome to attend this presentation to learn about the resources available to them. In this presentation, we explore how unconscious bias may impede student success in STEMM fields and how *Fair Play* can be used to address this.

Speakers

Christine Pribbenow, Ph.D., University of Wisconsin–Madison, Madison, WI

Donald Dantzer, M.S.Ed., University of Wisconsin–Madison, Madison, WI

5:30 p.m. – 7:30 p.m.

FREE TIME! FREE TIME! FREE TIME!

7:30 p.m. – 9:45 p.m.

BANQUET AND AWARDS CEREMONY

Conference Wrap-up

John Fitzgerald Gates, Ph.D., University of Virginia, Charlottesville, VA

Student Presentation Awards Ceremony

Concluding Remarks

Avery August, Ph.D., Cornell University College of Veterinary Medicine, Ithaca, NY

10:00 p.m. – 2:00 a.m.

Closing Social Invite and Dance (All Are Invited)