ABRCMS 2022
November 9–12 | Anaheim, CA
FINAL PROGRAM
Inspired by the work of Dr. Thomas, the Vivien Thomas Scholars Initiative (VTSI) is dedicated to nurturing, mentoring, and connecting the next generation of leaders in STEM at historically black colleges and universities and minority-serving institutions.

As Vivien Thomas Scholars at Johns Hopkins University, students are empowered to grow in discovery and lead in their fields while earning their PhD in one of over 30 programs.

Learn about the Vivien Thomas Scholars Initiative at Johns Hopkins University.
Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conference Welcome</td>
<td>4</td>
</tr>
<tr>
<td>National Institutes of Health (NIH) Greetings</td>
<td>5</td>
</tr>
<tr>
<td>ABRCMS Steering Committee</td>
<td>6</td>
</tr>
<tr>
<td>ABRCMS Supporters</td>
<td>7</td>
</tr>
<tr>
<td>20th Anniversary Highlights</td>
<td>8</td>
</tr>
<tr>
<td>ABRCMS Graduate Symposium Program</td>
<td>9</td>
</tr>
<tr>
<td>Schedule at a Glance</td>
<td>16</td>
</tr>
<tr>
<td>General Conference Information</td>
<td>17</td>
</tr>
<tr>
<td>Exhibitor and Judge Corner</td>
<td>20</td>
</tr>
<tr>
<td>ABRCMS Keynote Speakers</td>
<td>22</td>
</tr>
<tr>
<td>Concurrent Scientific Speakers</td>
<td>23</td>
</tr>
<tr>
<td>Daily Program</td>
<td>27</td>
</tr>
<tr>
<td>Poster Hall Map</td>
<td>41</td>
</tr>
<tr>
<td>Poster Presentation Numbers by Scientific Discipline</td>
<td>42</td>
</tr>
<tr>
<td>Exhibit Hall Map</td>
<td>43</td>
</tr>
<tr>
<td>Exhibitor Listings</td>
<td>44</td>
</tr>
</tbody>
</table>

Recipient of the 2019 AIMBE Excellence in STEM Education Award

Get Social! Follow and use #ABRCMS2022 on social media.
On behalf of the Steering Committee for Annual Biomedical Research Conference for Minoritized Scientists (ABRCMS), and the American Society for Microbiology, I would like to extend a sincere welcome to ABRCMS 2022. I am so excited that we are back in person after two years of virtual meetings due to the COVID-19 pandemic. And although we are in a different phase of the pandemic, the scientific advances in virology and immunology led to the rapid development of vaccines, allowing us to be able to return to many of the in person activities we value.

Our theme this year “Celebrating 20 Years of Building Community to Innovate in Biomedical and Behavioral Science Research,” tells a story of ABRCMS working to create a truly inclusive community of scientists who are historically excluded, meeting, talking about science, and supporting each other. Since our first meeting in 2001, ABRCMS has been a place where we inspire and support the careers of leaders who are the future of a more diverse scientific enterprise. Starting with a focus on undergraduate students, we are now a thriving community of scientists at all career stages. We welcome those of you for whom this is your first time at ABRCMS, and I know that once you experience our community, this won’t be your last.

The core of ABRCMS, and our theme, is “community.” Our community is where you will be able to interact over front line science, from plenary speakers Dr. Carolyn Ruth Bertozzi, a renowned chemist and Nobel laureate, known for her wide-ranging work spanning both chemistry and biology, to Dr. Maria Elena Bottazzi, an emerging disease vaccinologist and global health advocate, to Dr. Mae Jemison, NASA Astronaut and first woman of color in the world to go into space, to Dr. Olajide Williams, Neurologist and co-Founder and President of Hip Hop Public Health. They are joined by a number of accomplished speakers presenting a series of leading edge scientific expert talks, along with a wide range of professional development programs to meet the many needs of our participants, no matter your career stage. I am especially looking forward to the dynamism of the conference, the nervous excitement of those presenting for the first time, not knowing what to expect, but coming to the realization that they are being welcomed to our supportive scientific community.

Join our community in taking in all that we have prepared for you. Network like you haven’t done in two years, literally. Engage with the speakers and presenters, visit with the exhibitors, mentor and be mentored, support and be supported, because ABRCMS built this scientific community us.

The ABRCMS Steering Committee, the ASM staff, and the exhibitors have worked hard to deliver everything you see during your time here. Many volunteer judges, presenters, convention center support staff are all here doing a remarkable job to make this meeting possible. I would like to thank them all in advance for all their hard work making this conference a success. And as always, we are eternally grateful for the continued support of Division of Training, Workforce Development, and Diversity at the National Institute of General Medical Sciences, NIH, whose funding has continued to make ABRCMS what it is.

With my warmest wishes

Avery August, Ph.D.
Chairperson, ABRCMS
Greetings from NIH

On behalf of the National Institutes of Health’s National Institute of General Medical Sciences (NIGMS), we would like to welcome you to the 2022 Annual Biomedical Research Conference for Minoritized Scientists. We are very proud to support this meeting, which brings together a community of outstanding scientists for stimulating discussions of research, careers, and more.

This meeting is one element of our many activities in the areas of training, workforce development, diversity, and research capacity building. Our NIGMS programs range from the high school level through the undergraduate, graduate, postdoctoral and faculty levels. For example, we support an array of programs to enhance diversity in the biomedical research workforce including Science Education Partnership Awards, Bridges to the Baccalaureate, Building Infrastructure Leading to Diversity, Maximizing Access to Research Careers, Research Training Initiative for Scientific Enhancement, Initiative for Maximizing Student Development, Postbaccalaureate Research Education, Bridges to the Doctorate, Institutional Research and Academic Career Development Awards, Maximizing Opportunities for Scientific and Academic Independent Careers, the Diversity Supplement Program, the Native American Research Centers for Health, the Support for Research Excellence Programs, and the National Research Mentoring Network.

For those of you who are attending as mentors and sponsors, we truly appreciate your dedication and many contributions to your students and our shared goals. For those of you still in training, we hope that your involvement in this meeting further inspires and motivates you to pursue careers and leadership positions in the biomedical research workforce and leadership roles in biomedical science. During your time here, you will gain important allies for your future: a community of peers who will become your colleagues and friends as well as a network of scientists and mentors who are deeply committed to your success in pursuit of a research doctorate and a career in the biomedical research workforce.

We encourage you to make the most of the meeting and take every advantage of the resources and opportunities it offers to help you prepare for the next stages of your research career. We look forward to seeing your presentations and talking to you over the course of the next few days.

Sincerely,
Jon R. Lorsch, Ph.D.
Director
National Institute of General Medical Sciences,
National Institutes of Health

Alison Gammie, Ph.D.
Director
Division of Training, Workforce Development, and Diversity,
National Institute of General Medical Sciences, National Institutes of Health
Steering Committee

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

Lisa Barnes, Ph.D.
Rush University

Squire Booker, Ph.D.
Penn State University

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

Arturo Casadevall, M.D., M.S., Ph.D.
The Johns Hopkins University

Lydia Contreras, Ph.D.
University of Texas at Austin

Tracy Johnson, Ph.D.
University of California, Los Angeles

Beronda Montgomery, Ph.D.
Grinnell College

Juan S. Ramírez Lugo, Ph.D.
University of Puerto Rico, Rio Piedras

Mary Sanchez Lanier, Ph.D.
Washington State University

Crystal Watkins, M.D., Ph.D.
MedStar Harbor Hospital

Subcommittees

JUDGES TRAINING AD HOC COMMITTEE

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

Bolaji Thomas, Ph.D.
Rochester Institute of Technology

Alfredo Torres, Ph.D.
University of Texas Medical Branch at Galveston

PARTNERSHIP AD HOC COMMITTEE

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Biogen, Inc.

Victoria McGovern, Ph.D.
Burroughs Wellcome Fund
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- Washington University in St. Louis, Vagelos Division of Biology & Biomedical Sciences
- Emory University, Laney Graduate School

Bronze Sponsors
- Uniformed Services University of the Health Sciences - Graduate Programs in Biomedical Sciences and Public Health
20th Anniversary Highlights

Celebrating 20 years of ABRCMS
For more than 20 years, ABRCMS has been the go-to conference for underrepresented groups in STEM – providing a safe space for learning, sharing and connecting with one another.

While ABRCMS officially hit its 20th year in 2021, there’s no better time to celebrate with our community than now and in-person, as we rebuild and reenergize after the last two years.

We are so glad to have you all here and hope that you enjoy the celebration we have in store!

ABRCMS Graduate Symposium
ABRCMS is excited to launch the inaugural ABRCMS Graduate Symposium this year, taking place November 8-9. The Graduate Symposium is designed for graduate students, in one of our 12 STEM disciplines, at the master’s and doctoral-level, and provides a unique opportunity for graduate students to highlight their research in oral presentations, strengthen their professional development skills, and build their scientific networks among STEM and career professionals.

Welcome to the graduate students who are part of this groundbreaking ABRCMS event!

ePosters
Check out the student ePoster virtual session, which will be available to all attendees on Saturday, November 12, from 9:30 a.m. – 11:30 a.m., via the conference app.

ABRCMS365
Your ABRCMS experience no longer has to end on the last day of the conference. ABRCMS365 is an extension of the conference that allows you and your students to continue learning, with webinars that explore professional development, diversity, and scientific topics. Take advantage of this opportunity to stay connected by visiting: abrcms.org/online.
Tuesday, November 8

8:00 a.m. - 8:55 a.m. Elite Ballroom 1
HEADSHOT LOUNGE OPEN

Noon – 12:15 p.m. Platinum Ballroom 6
WELCOME & OVERVIEW
(Recommended for All Attendees)

SPEAKERS
• Irene Hulede, American Society for Microbiology, Washington, DC
• Tiffany Fonseca, M.B.A., American Society for Microbiology, Washington, DC

9:50 a.m. - 10:50 a.m. Platinum Ballroom 6
Graduate Student Coaching: A Proactive Approach to Career Success
(All Attendees)

SPEAKER
• Marquita Qualls, Entropia Consulting, Nashville, TN

10:50 a.m. - 11:00 a.m. Break & HEADSHOT LOUNGE OPEN

11:00 a.m. - 12:30 p.m. Platinum Ballroom 6
Navigating Career Choices
(All Attendees)

SPEAKER
• Lauren Celano, Propel Careers, Boston MA

12:30 p.m. - 1:45 p.m. Platinum Ballroom 5
NETWORKING LUNCH & HEADSHOT LOUNGE OPEN

CONCURRENT ORAL PRESENTATIONS (4 SESSION OPTIONS)

2:00 p.m. - 3:15 p.m. Platinum Ballroom 3-4
SESSION 1
Graduate Student Oral Presentations
Biochemistry and Molecular Biology; Cell Biology
(All Attendees)

PRESENTERS
• 2:00 – 2:10 p.m. GS01: Lupe Aguirre-Figueroa
• 2:13 – 2:23 p.m. GS02: Chelsea Blankenhrip
• 2:26 – 2:36 p.m. GS03: Madison Kennedy
• 2:39 – 2:49 p.m. GS04: Alexander Paredes
• 2:52 – 3:02 p.m. GS05: Amy Aponte
• 3:05 – 3:15 p.m. GS06: Gerson Ascencio

3:25 p.m. - 4:10 p.m. Platinum Ballroom 6
Linkedin, Resumes, Interviews, Oh my!: Developing Effective Job Search Strategies to Boost Your Career
(All Attendees)

SPEAKERS
• Gian Carlo Molina-Castro, The Johns Hopkins University, Baltimore, MD
• Roshni Rao, Ph.D., The Johns Hopkins University, Baltimore, MD

4:10 p.m. 4:15 p.m.
REFRESHMENT BREAK
LED BY KNOWLEDGE,  
GUIDED BY HEART 

emory.edu
CONCURRENT PROFESSIONAL DEVELOPMENT SESSIONS
(2 SESSION OPTIONS)

4:15 p.m. - 5:00 p.m.  Platinum Ballroom 3-4
When You Have to Be the Best: Navigating Career Transitions
(All Attendees)

SPEAKER
• Shanique Edwards, Ph.D., Cold Spring Harbor Laboratory, Cold Spring Harbor, NY

4:15 p.m. - 5:00 p.m.  Platinum Ballroom 7-8
Finding Success as a Postdoc
(All Attendees)

SPEAKERS
• Heather Dillon, MSc., University of California, San Diego, La Jolla, CA
• Mark Lawson, Ph.D., University of California, Berkeley, CA
• Jennie Salomon, MSSW, University of California, San Diego, La Jolla, CA

5:15 p.m. - 6:00 p.m.  Platinum Ballroom 6
Navigating the Impact of Microaggressions
(All Attendees)

SPEAKERS
• Jacqueline McDermott-Selman, M.Ed., M.S., LADC, Sharing Abilities Counseling LLC, Windsor, CT
• Danielle Watt, Ph.D., University of Minnesota, Minneapolis, MN

6:15 p.m. - 7:30 p.m.  Platinum Patio
GRADUATE STUDENT NETWORKING RECEPTION

6:00 p.m. - 7:30 p.m.  Elite Ballroom 1
HEADSHOT LOUNGE OPEN

Wednesday, November 9

8:00 a.m. - 8:55 a.m.  Elite Ballroom 1
HEADSHOT LOUNGE OPEN

9:00 a.m. - 9:45 a.m.  Platinum Ballroom 6
Enacting Change Through Cultivation of Graduate Student Activism and Engagement with Social Justice
(All Attendees)

SPEAKER
• D’Anne Duncan, Ph.D., University of California, San Francisco, San Francisco, CA

9:45 a.m. - 10:00 a.m.  Break

CONCURRENT ORAL PRESENTATIONS
(4 SESSION OPTIONS)

10:00 a.m. - 11:15 a.m.  Platinum Ballroom 6
SESSION 1
Graduate Student Oral Presentations
Biochemistry and Molecular Biology; Physiology and Pharmacology; Chemistry
(All Attendees)

PRESENTERS
• 10:00 – 10:10 a.m.  GS25: Kevin Ramos
• 10:13 – 10:23 a.m.  GS26: Tavis Reed
• 10:26 – 10:36 a.m.  GS27: Alejandra Matsuri Rojano-Nisimura
• 10:39 – 10:49 a.m.  GS28: Ivana Daniels
• 10:52 – 11:02 a.m.  GS29: Kennedy Goldsborough
• 11:05 – 11:15 a.m.  GS30: Michael Gonzalez

10:00 a.m. - 11:15 a.m.  Platinum Ballroom 3-4
SESSION 2
Graduate Student Oral Presentations
Microbiology; Immunology
(All Attendees)

PRESENTERS
• 10:00 – 10:10 a.m.  GS31: Francisco Acosta
• 10:13 – 10:23 a.m.  GS32: Rachana Pandit
• 10:26 – 10:36 a.m.  GS33: Eva Quijano Cardé
• 10:39 – 10:49 a.m.  GS34: Lamar Thomas
• 10:52 – 11:02 a.m.  GS35: Evonne Jean
• 11:05 – 11:15 a.m.  GS36: Carmelissa Norbrun

10:00 a.m. - 11:15 a.m.  Platinum Ballroom 7-8
SESSION 3
Graduate Student Oral Presentations
Neuroscience, Social & Behavioral Sciences and Public Health
(All Attendees)

PRESENTERS
• 10:00 – 10:10 a.m.  GS37: Mydirah Littlepage-Saunders
• 10:13 – 10:23 a.m.  GS38: Ginny Park
• 10:26 – 10:36 a.m.  GS39: Kristen Tison
• 10:39 – 10:49 a.m.  GS40: Marcy Cage
• 10:52 – 11:02 a.m.  GS41: Leah Dodds
• 11:05 – 11:15 a.m.  GS42: Alma Solis

10:00 a.m. - 11:15 a.m.  Platinum Ballroom 9-10
SESSION 4
Graduate Student Oral Presentations
Engineering, Physics, and Mathematics; Computational and Systems Biology, and Microbiology
(All Attendees)

PRESENTERS
• 10:00 – 10:10 a.m.  GS43: Preye Agbana
• 10:13 – 10:23 a.m.  GS44: Kharimat Lora Alatise
• 10:26 – 10:36 a.m.  GS45: Mariela Rivera-De Jesus
• 10:39 – 10:49 a.m.  GS46: Tiffany Eulaliio
• 10:52 – 11:02 a.m.  GS47: Steven Ewell
• 11:05 – 11:15 a.m.  GS48: Marienela Heredia
11:25 a.m. - 12:10 p.m.
NETWORKING LUNCH & HEADSHOT LOUNGE OPEN

CONCURRENT PROFESSIONAL DEVELOPMENT SESSIONS (2 SESSION OPTIONS)

12:15 p.m. - 1:15 p.m.  📍Platinum Ballroom 3-4
Acing Time Management, from Surviving to Thriving
(All Attendees)

SPEAKER
• Weiwei Xu, Ph.D., Tulane University, New Orleans, LA

12:15 p.m. - 1:15 p.m.  📍Platinum Ballroom 7-8
Career Exploration
(All Attendees)

SPEAKER
• J. Alan Goggins, Ph.D., Merck Research Laboratories, San Francisco, CA

1:20 p.m. - 1:50 p.m.  📍Platinum Ballroom 6
OPEN FORUM
(All Attendees)

ABRCMS Graduate Student Oral Presentations

Tuesday, November 8, 2022

SESSION 1: GRADUATE STUDENT ORAL PRESENTATIONS
2:00 p.m. - 2:10 p.m.
GS01: Lupe Aguirre-Figueroa
University of Wisconsin-Madison
Abstract Title: Synthetic quorum sensing inhibitors to block polymicrobial infections

2:13 p.m. - 2:23 p.m.
GS02: Chelsea Blankenchip
University of California San Diego
Abstract Title: Control of Bacterial Immune Signaling by a WYL Domain Transcription Factor

2:26 p.m. - 2:36 p.m.
GS03: Madison Kennedy
Fred Hutchinson Cancer Center
Abstract Title: Structures and Function of the Type-IIS Restriction Endonuclease PaqCI

2:39 p.m. - 2:49 p.m.
GS04: Alexander Paredes
University of Maryland Baltimore County
Abstract Title: Biophysical characterization of the BqsR response regulator from the Pseudomonas aeruginosa BqsR/S two-component system

2:52 p.m. - 3:02 p.m.
GS05: Amy Aponte
University of North Carolina at Chapel Hill
Abstract Title: Regulation of the retinoblastoma (Rb) tumor suppressor by the ubiquitin-proteasome system

3:05 p.m. - 3:15 p.m.
GS06: Gerson Ascencio
San Francisco State University
Abstract Title: Role of miR-190 on Cell Fate Determination During Mitosis in Drosophila Neuroblasts

SESSION 2: GRADUATE STUDENT ORAL PRESENTATIONS
2:00 p.m. - 2:10 p.m.
GS07: Simone Grant
University of California Davis
Abstract Title: The Effects of Immune Stimulant Intensity on Neurodevelopment in a Rat Model of Maternal Immune Activation

2:13 p.m. - 2:23 p.m.
GS08: Micah Johnson
University of Iowa
Abstract Title: Brain-wide Local Field Potential Connectivity Patterns Underlying a Migraine-related Hypersensitivity Network

2:26 p.m. - 2:36 p.m.
GS09: Elizabeth Medina
Washington State University
Abstract Title: Sleep on the Spectrum

2:39 p.m. - 2:49 p.m.
GS10: Daraishka Perez
Universidad Central del Caribe
Abstract Title: Targeted lysophospholipid delivery via the transferrin receptor as potential epilepsy therapy

2:52 p.m. - 3:02 p.m.
GS11: Motomori Lewis
University of Florida
Abstract Title: Geographic Variation of High-Risk Prescription Opioid Use Measures among Disabled Medicare Beneficiaries, 2011-2018

3:05 p.m. - 3:15 p.m.
GS12: Marisa Torres-Ruiz
San Diego State University
Abstract Title: Social Determinants of Mental Health Outcomes

SESSION 3: GRADUATE STUDENT ORAL PRESENTATIONS
2:00 p.m. - 2:10 p.m.
GS13: Mary Fuentes
The University of Texas MD Anderson Cancer Center, UT Health Houston Graduate School of Biomedical Sciences
Abstract Title: Histone Lysine Methyltransferase NSD3 Governs Transcriptional Programs that Drive Pancreatic Neuroendocrine Tumors (PanNETs)
<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Institution</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:13 p.m. - 2:23 p.m.</td>
<td>Haroldo Rodriguez Chevez</td>
<td>University of Washington</td>
<td>Characterization of Tumor-infiltrating B Cell Responses in Merkel Cell Carcinoma</td>
</tr>
<tr>
<td>2:26 p.m. - 2:36 p.m.</td>
<td>Oscar Villarreal</td>
<td>The University of Texas MD Anderson Cancer Center</td>
<td>The Role of Tumor-Propagating Cells in the Response of Colorectal Cancer to MAPK-Targeting Therapy</td>
</tr>
<tr>
<td>2:39 p.m. - 2:49 p.m.</td>
<td>Megan Goecikel</td>
<td>Washington University in St. Louis</td>
<td>Inhibition of TRPM5 Leads to Developmental and Cardiovascular Abnormalities</td>
</tr>
<tr>
<td>2:52 p.m. - 3:02 p.m.</td>
<td>Kelton Verble</td>
<td>University of Alabama</td>
<td>A Rapid Return to Normal: Temporal Patterns of Gene Expression Following Cold Stress in the Bumble Bee Bombus impatians</td>
</tr>
<tr>
<td>3:05 p.m. - 3:15 p.m.</td>
<td>Latoya Downs</td>
<td>University of Southern Mississippi</td>
<td>Deciphering the interplay between selenoproteins and the unfolded protein response in pathogen infection using anixodes scapulariscell line</td>
</tr>
<tr>
<td>2:00 p.m. - 2:10 p.m.</td>
<td>Charles Agbavor</td>
<td>University of Pittsburgh</td>
<td>Disarming Bad Bugs: Targeting the Pneumolysin Toxin in Streptococcus pneumoniae</td>
</tr>
<tr>
<td>2:13 p.m. - 2:23 p.m.</td>
<td>Erika Flores</td>
<td>University of Texas Health Science Center</td>
<td>Investigating the role of chronic intestinal inflammation during adherent-invasive E. coli infections in a larval zebrafish model</td>
</tr>
<tr>
<td>2:26 p.m. - 2:36 p.m.</td>
<td>Franklin Román-Rodriguez</td>
<td>Rutgers University</td>
<td>Examining Altered Regulatory Pathways in Staphylococcus aureus Influenced by Pseudomonas aeruginosa Secreted Compounds</td>
</tr>
<tr>
<td>2:39 p.m. - 2:49 p.m.</td>
<td>Jessica Watts</td>
<td>Baylor College of Medicine</td>
<td>Generating Elephant Cell Lines Targeted in Elephant Endotheliotropic Herpesvirus Infection</td>
</tr>
<tr>
<td>2:52 p.m. - 3:02 p.m.</td>
<td>Erik Guillen</td>
<td>Albert Einstein College of Medicine</td>
<td>The strength of antigenic and IL-2 signals epigenetically programs functional memory CD8+ T cells</td>
</tr>
<tr>
<td>3:05 p.m. - 3:15 p.m.</td>
<td>Chelsey Skeete</td>
<td>Boston University Graduate Medical Sciences</td>
<td>Investigating the Role of Opioid Signaling on Innate Immune Activation in HIV-infected Microglia</td>
</tr>
<tr>
<td>10:00 a.m. - 10:10 a.m.</td>
<td>Kevin Ramos</td>
<td>Albert Einstein College of Medicine</td>
<td>Using a Computational-Based Approach to Enhance the Binding Characteristics of a Nanobody</td>
</tr>
<tr>
<td>10:13 a.m. - 10:23 a.m.</td>
<td>Tavis Reed</td>
<td>Princeton University</td>
<td>Tapioca - A Novel Framework For Predicting Protein-Protein Interactions From Thermal Proximity Coaggregation Data Identifies NUCKS1 as a Pan-Herpesvirus Proviral Factor</td>
</tr>
<tr>
<td>10:26 a.m. - 10:36 a.m.</td>
<td>Alejandra Matsuri Rojano-Nisimura</td>
<td>The University of Texas at Austin</td>
<td>Uncovering novel RNA chaperones in E. coli</td>
</tr>
<tr>
<td>10:39 a.m. - 10:49 a.m.</td>
<td>Ivana Daniels</td>
<td>Indiana University School of Medicine</td>
<td>The Effects of pH Alteration on Respiratory Syncytial Virus Infection in Human Airway Epithelial Cells</td>
</tr>
<tr>
<td>10:52 a.m. - 11:02 a.m.</td>
<td>Kennedy Goldsborough</td>
<td>Virginia Commonwealth University</td>
<td>Behavioral Battery for Candidate Analgesics to Treat Sickle Cell Disease Chronic Pain: Effects of Oxycodone</td>
</tr>
<tr>
<td>11:05 a.m. - 11:15 a.m.</td>
<td>Michael Gonzalez</td>
<td>California State University, Fullerton</td>
<td>A Polypharmacology Approach: Development of Multi-Target Inhibitors for the Treatment of Chronic Pain and Alzheimer's Disease</td>
</tr>
<tr>
<td>10:00 a.m. - 10:10 a.m.</td>
<td>Francisco Acosta</td>
<td>California State University Long Beach</td>
<td>Characterizing the Interaction Between HIV-1 Nef and the Host Factor Annexin A2</td>
</tr>
</tbody>
</table>
GS32: Rachana Pandit  
*Alabama State University*  
**Abstract Title:** Impact of Coronavirus Infection on Biogenesis and Trafficking of the Cell Derived-Extracellular Vesicles

GS33: Eva Quijano Cardé  
*University of California - Davis*  
**Abstract Title:** Design and Validation of a qPCR Assay for Diagnosis of Acipenserid Herpesvirus 2 in White Sturgeon (Acipenser transmontanus) Tissues

GS34: Lamar Thomas  
*Binghamton University*  
**Abstract Title:** The Characterization of a Novel GBS Protein Involved in Vaginal Colonization

GS35: Evonne Jean  
*University of Pennsylvania*  
**Abstract Title:** Cutaneous Resistance to Helminth Infection Relies Upon an IL-33-dependent, but STAT6 Independent Mechanism

GS36: Carmelissa Norbrun  
*Brown University*  
**Abstract Title:** Chitinase 3-like-1 Contributes to the Development of Pulmonary Vascular Remodeling in Pulmonary Hypertension

GS37: Mydirah Littlepage-Saunders  
*Uniformed Services University of Health Sciences*  
**Abstract Title:** Metabotropic glutamate receptor 2 deletion effects on behavioral flexibility in mice

GS38: Ginny Park  
*Washington State University*  
**Abstract Title:** Identifying Behavioral Predictors of Cannabis Vapor Self-Administration in Female and Male Rats

GS39: Krislen Tison  
*University of Iowa*  
**Abstract Title:** Transcriptomic Analysis of The Cerebellum in The 16p11.2 Duplication Mouse Model Of Schizophrenia

GS40: Marcy Cage  
*University of South Alabama College of Medicine*  
**Abstract Title:** Association of leisure-time physical activity with chronic kidney disease(CKD) among African-Americans in Jackson Heart Study

GS41: Leah Dods  
*University of Miami Miller School of Medicine*  
**Abstract Title:** Associations Between Hypertensive Disorders of Pregnancy and Cognitive Decline, the Study of Latinos of Latinos-Investigation of Neurocognitive Aging

GS42: Alma Solis  
*Duke University*  
**Abstract Title:** Blastocystis sp. infection in relation to animal interaction, socio-demographic variables, and household characteristics in northeast Madagascar

GS43: Preye Agbana  
*University of Kentucky*  
**Abstract Title:** Ternary Polypeptide Nanoparticles with Improved Encapsulation, Sustained Release, and Enhanced In Vitro Efficacy of Carfilzomib

GS44: Kharimat Lora Alatise  
*Clemson University*  
**Abstract Title:** Toward a targeted fusogenic peptide for gene regulation in ovarian cancer

GS45: Mariela Rivera-De Jesús  
*Cornell University*  
**Abstract Title:** Delivery of SARS-CoV-2 Nucleocapsid Protein Antigens Using Recombinant Outer Membrane Vesicles

GS46: Tiffany Eulalio  
*Stanford University*  
**Abstract Title:** Quantifying Regional DNA Methylation Improves Detection of Biologically Relevant Associations in Alzheimer’s Disease

GS47: Steven Ewell  
*Florida Agricultural and Mechanical University*  
**Abstract Title:** In Silico Identification of 1,3,4-Oxadiazole Hybrids as novel Discoidin Domain Receptor-1 (DDR-1) Inhibitors with Potential Anticancer Agent

GS48: Marienela Heredia  
*University of Wisconsin-Madison*  
**Abstract Title:** Modeling Intestinal Protozoan-Host Interactions In Vivo Using a Murine Entamoeba species
Innovation depends on diversity.

\[\text{ABRCMS365}\] is year-round, online programming that provides continued learning, with unparalleled professional development, scientific and networking opportunities.

**Explore Content Designed For:**
- Community College, Undergraduate and Postbaccalaureate Students
- Graduate Students and Postdoctoral Scientists
- Researchers, Faculty Members and Administrators, including those working in Diversity and Inclusion

Mark your calendar for our upcoming events at [www.abrcms.org/abrcmsonline](http://www.abrcms.org/abrcmsonline)
Schedule at a Glance

WEDNESDAY, NOVEMBER 9
9:00 a.m. - 1:50 p.m.  ABRCMS Graduate Symposium
12:00 p.m. - 8:00 p.m.  Registration
2:00 p.m. - 4:00 p.m.  Concurrent Workshops
4:15 p.m. - 5:00 p.m.  Networking Opportunities in STEM Disciplines Discussion
5:15 p.m. - 6:00 p.m.  Concurrent Professional Development Sessions
6:30 p.m. - 7:15 p.m.  Networking Dinner
7:30 p.m. - 9:00 p.m.  Networking Affiliated Events

THURSDAY, NOVEMBER 10
7:00 a.m. - 7:00 p.m.  Registration
7:30 a.m. - 8:15 a.m.  Continental Breakfast
8:30 a.m. - 9:15 a.m.  Concurrent Scientific Expert Lecture Sessions
9:30 a.m. - 10:00 a.m.  Concurrent Professional Development Sessions
10:15 a.m. - 11:00 a.m.  Keynote Address
11:15 a.m. - 12:00 p.m.  Concurrent Professional Development Sessions
12:15 p.m. - 1:00 p.m.  Networking Lunch
1:10 p.m. - 1:55 p.m.  Keynote Address
2:10 p.m. - 3:10 p.m.  Poster Session 1 (A)
3:25 p.m. - 4:25 p.m.  Poster Session 2 (B)
4:40 p.m. - 5:40 p.m.  Poster Session 3 (C)
6:00 p.m. - 7:15 p.m.  Networking Affiliated Events
7:15 p.m. - 8:00 p.m.  Networking Affiliated Events
8:00 p.m. - 9:30 p.m.  Networking Affiliated Events

FRIDAY, NOVEMBER 11
7:00 a.m. - 7:00 p.m.  Registration
7:30 a.m. - 8:15 a.m.  Continental Breakfast
8:30 a.m. - 9:15 a.m.  Concurrent Professional Development Sessions
9:30 a.m. - 10:00 a.m.  Concurrent Scientific Expert Lecture Sessions
10:15 a.m. - 11:00 a.m.  Keynote Address
11:15 a.m. - 12:00 p.m.  Concurrent Professional Development Sessions
12:15 p.m. - 1:00 p.m.  Networking Lunch
1:15 p.m. - 2:15 p.m.  Poster Session 4 (D)
2:25 p.m. - 3:25 p.m.  Poster Session 5 (E)
3:35 p.m. - 4:35 p.m.  Poster Session 6 (F)
4:45 p.m. - 5:30 p.m.  Keynote Address
5:45 p.m. - 7:00 p.m.  Student Oral Presentations 2
7:15 p.m. - 9:30 p.m.  20th Anniversary Celebration

SATURDAY, NOVEMBER 12
7:00 a.m. - 1:00 p.m.  Registration
8:00 a.m. - 9:00 a.m.  Continental Breakfast
9:30 a.m. - 11:30 a.m.  Exhibit Hall Hours
ePoster Session 7 (G)
ePoster Session 8 (H)
10:30 a.m. - 11:30 a.m.  Closing Keynote
10:30 a.m. - 11:30 a.m.  Awards Ceremony and Recognition
5:00 p.m. - 5:30 p.m.  Closing Dinner
5:30 p.m. - 7:30 p.m.  Closing Dinner
7:45 p.m. - 8:45 p.m.  Closing Dinner

Celebrating 20 Years of Building Community to Innovate in Biomedical and Behavioral Science Research
General Conference Information

The ABRCMS Final Program is current as of October 24, 2022. For the latest updates and information, please refer to the mobile app.

REGISTRATION
ABRCMS registration is located at the Anaheim Convention Center. Full-service registration for all attendees, including badge pick-up is in Lobby B.

Wednesday, November 9
12:00 p.m. - 8:00 p.m.

Thursday, November 10
7:00 a.m. - 7:00 p.m.

Friday, November 11
7:00 a.m. - 7:00 p.m.

Saturday, November 12
7:00 a.m. - 1:00 p.m.

CONFERENCE POLICIES

Name Badge Policy and Badge Replacement
All ABRCMS attendees are required to always wear conference badges onsite. Badges give you access to sessions, the exhibit hall, and workshops. It is your responsibility to ensure that you always have your badge. There is a charge of $25 for badge replacement. No exceptions will be made.

Dress Code
ABRCMS attendees are expected to dress professionally for all conference activities.

Cell Phone Usage
Out of consideration for your ABRCMS colleagues, all cell phones must be silenced in session rooms.

Photos and Video
By registering for ABRCMS, you agree to allow ASM/ABRCMS to use any photos or video taken of you during the conference in news media, website, publications, articles, marketing pieces, etc. To protect data shared during presentations, no photos may be taken of posters or scientific session slides at ABRCMS.

ABRCMS Code of Conduct
The Annual Biomedical Research Conference for Minoritized Scientists (“ABRCMS”), managed by the American Society for Microbiology (“ASM”), is one of the nation’s largest conferences for underrepresented scientists in STEM. ABRCMS is committed to providing an environment that encourages the free expression and exchange of scientific ideas and promotes equal opportunities and respectful treatment for all participants. All participants are expected to treat others with respect and consideration, follow venue rules, and alert ASM/ABRCMS staff or security of any dangerous situations or anyone in distress.

ABRCMS prohibits and will not tolerate any form of harassment or bullying at its events. This policy applies to all attendees, speakers, exhibitors, contractors, volunteers, and guests at ABRCMS. Violation of this code of conduct may result in the participant being asked to leave the event at which the incident occurred, without warning or refund; being barred from attending ABRCMS in the future.

If a participant experiences or witness harassment, please follow the protocol at abrcms.org/code–of–conduct or contact an ASM/ABRCMS staff (identifiable by staff badge) as soon as possible or contact security.

LOST AND FOUND
Unattended personal belongings will be removed and taken to the Registration Desk located at the Anaheim Convention Center.

ADA
Pursuant to the Americans with Disabilities Act, if you require services or aids to participate fully in ABRCMS, please visit the registration desk.

CONFERENCE APP
Get the latest program, exhibitor information, maps and more in the palm of your hand with the ABRCMS Mobile App. Search for ABRCMS 2022 in your app store or scan this QR code to download.

WI-FI ACCESS
Free Wi-Fi is available in the exhibit hall, session rooms, and convention center hallways. This service has been brought to you by ABRCMS and the American Society for Microbiology.

• NETWORK: ABRCMS
• PASSWORD: ABRCMS_2022

DINING PLAN
Dining is included in the ABRCMS registration fee. Registration includes the following meals:

• Wednesday: Dinner
• Thursday: Continental Breakfast, Lunch, and Dinner
• Friday: Continental Breakfast, Lunch and Reception
• Saturday: Continental Breakfast and Dinner

Note: The most common food allergens have been avoided to the best extent. Please read food labels on the buffets carefully to avoid allergens of dietary restricted foods.
Be part of one of the world’s leading, nonprofit biomedical research institutes. Scripps Research is ranked the most influential institution globally for its impact on scientific innovation.

We are actively seeking new researchers who embody our values of excellence, independence, creativity, diversity, respect and compassion. Together, we cultivate scientific leaders, expand the frontiers of knowledge and transform human health.

What are you seeking?

**Undergraduate Research**
During the summer and throughout the academic year, we offer unique mentored research experiences to undergraduates with diverse backgrounds—ranging from no prior research experience to first-generation college attendees.

**Graduate Education**
Ranked among the top ten programs of its kind in the nation, the Skaggs Graduate School of Chemical & Biological Sciences trains the next generation of scientists in a rich environment defined by mentorship, intellectual curiosity and high-level research output.

**Postdoctoral Training**
Working alongside more than 170 internationally renowned faculty, Scripps Research postdoctoral researchers enjoy expansive benefits and specialized training support on their way to becoming future leaders in the life sciences.

**Scripps Research Fellows Program**
Exceptional recent PhD graduates can accelerate their careers and launch an independent laboratory with the unique support and resources of our Scripps Research Fellows Program.

**Junior Faculty**
We invite multidisciplinary investigators to collaborate in solving the greatest problems across basic research, drug discovery and translational medicine.
AWARDS CEREMONY & RECOGNITION AND CLOSING BANQUET
The Awards Ceremony & Recognition is Saturday, November 12, from 5:30 p.m. to 7:30 p.m. located in the ACC North Level 100. The Closing Banquet will immediately follow the ceremony at 7:45 p.m., located in Hall A.

DESIGNATED SPACES
Gender neutral restrooms are available in the convention center and can be found at the following locations:
Convention Center 208-210 Corridor (Second Level)
Exhibit Hall B (First Level)
All rooms will be available from Wednesday, November 9 through Saturday, November 12.

ADA Resource Room ................................................. 205 B
Exam Room 1 ........................................................... 208 B
Childcare Room ....................................................... 209 B
Exam Room 2 ........................................................... 211 B
Exam Room 3 ........................................................... 212 A
First Aid Room ............................................................ 112
General Study Room ................................................ 208 B
Judges Lounge ......................................................... 207 ABC
Lactation Room ......................................................... 109
Mentoring Resource Room ....................................... 211 A
Oral Presentation Practice Room ............................... 212 B
Poster Presentation Practice Room ......................... 213 ABC
Prayer/Meditation Room ............................................ 202 B
Speaker Ready Room ................................................ 205 A

Note: Please check your hotel for other available study rooms.

CONFERENCE EVALUATION
This year, we are re-implementing real-time evaluation during sessions. Please take a few minutes to complete your evaluation in the conference app at the end of each session you attend.

A post-conference evaluation will be emailed to all attendees following the conference. Please take some to complete the evaluation upon receipt. We value your feedback and your completed evaluation helps us improve the ABRCMS experience.

THE ABRCMS EXHIBIT HALL PASSPORT IS NOW IN THE CONFERENCE APP!
The Exhibit Hall Passport offers you the opportunity to win a $50 gift card while networking and exploring the ABRCMS 2022 Exhibitors. Five randomly selected winners will be announced in Exhibit Hall B on Saturday, November 12 at 11:00 a.m. You do not need to be present to win.

Visit these participating booths to scan their QR code and collect points!

- American Society for Microbiology, Booth 400
- Medical College of Wisconsin, Booth 240
- University of Missouri, Graduate School & Life Sciences, Booth 841
- ETS, Booth 574
- Emory University, Laney Graduate School, Booth 810
For Exhibitors

ABRCMS Exhibits will take place in Hall B of the Anaheim Convention Center.

Move-In
- Wednesday, November 9 3:00 p.m. - 8:00 p.m.
- Thursday, November 10 8:00 a.m. - 12:00 p.m.

Exhibit Hours
- Thursday, November 10 2:10 p.m. - 5:40 p.m.
- Friday, November 11 1:15 p.m. - 4:35 p.m.
- Saturday, November 12 9:30 a.m. - 11:30 a.m.

Early Admittance
Your exhibitor badge allows you access to the Exhibit Hall 30 minutes prior to the opening of the Exhibit Hall. Due to security, you will not be allowed to enter the Exhibit Hall earlier than 30 minutes or anytime outside of exhibit hours. Please plan accordingly.

Exhibitor Service Center
The Exhibitor Service Center is where exhibitors can find the exhibitor lounge, Freeman, Smart City (Internet), Projection (A/V) and Maritz (Lead Retrieval) service desks. The Exhibitor Service Center is located at the back left corner of Hall B.

Leaving Early
We encourage all exhibitors to stay for the duration of the conference. Students are expecting full participation. Exhibitors who wish to leave early will be responsible for the shipment of their materials. Freeman will only ship materials for exhibitors on the last day of the conference.

Move-Out
Saturday, November 12 11:45 a.m. - 4:00 p.m.

Exhibitor Feedback Session
All exhibitors are invited to join Avery August, Ph.D., ABRCMS chairperson and Co-PI, and Irene Hulede, ABRCMS director and Co-PI, for breakfast on Saturday, November 12, from 8:15 a.m. - 9:15 a.m. in room 207D for a feedback session.

For Judges

ABRCMS Poster Presentations will take place in Hall C of the Anaheim Convention Center.

Judges Lounge
Convention Center, Room 207 ABC

Important Reminder:
In-person presentation scores must be submitted by 11:00 p.m. (PT), Friday, November 11.

Virtual presentation scores must be submitted by 1:00 p.m. (PT), Saturday, November 12.
Explore the Power of Community with ASM

Collaborate with peers and experts world-wide in ASM Connect, our online member Community.

Connect on a local level, join a branch or student chapter and network with peers and industry leaders in-person.

Get a jump start on your career with ASM’s Microbiology Careers Salary Survey - view comprehensive compensation and benefits data across the microbiology industry to help you plan your career path.

asm.org/join

Stop by ASM Booth #400 to learn more.
Scientific Keynote Address
Addressing Health Equity through Health Literacy: The Powerful Role of Hip Hop
Olajide Williams, M.D., M.S.
Columbia University Medical Center, Founder and President, Hip Hop Public Health
New York, NY
CONCURRENT SCIENTIFIC SPEAKERS

Thursday, November 10 | 9:45 a.m. - 10:15 a.m

NAD+ Flux and Resilieny in Aged Mice
Melanie R. McReynolds, Ph.D.,
The Pennsylvania State University,
University Park, PA

Microfabrication Approaches to Control Stem Cell Fate and Function
Quinton Smith, Ph.D., University of California, Irvine, Irvine, CA

Cancer Prevention by Caffeine: Another Reason to Love Coffee
Masaoki Kawasumi, M.D., Ph.D.,
University of Washington, Seattle, WA

The Novel Coronavirus (SARS-CoV-2), Monkeypox Virus, and Our Immune System
Hossam Ashour, Ph.D., B. Pharm (Hon.), University of South Florida, St. Petersburg, FL

The Eye: The Organ with the Stickiest Vasculature in Diabetes
Emma M. Lessieur-Contreras, M.D., Ph.D.,
University of California, Irvine, Irvine, CA

Intoxicated! Discovery of New Bacterial Toxins Reveals Novel Biochemical Pathways
Aria Eshraghi, Ph.D., University of Florida, Gainesville, FL

Interdisciplinary Approach to Control Biofilm Formation Using Natural Extracts and Biocompatible Polymers
Victoria V. Volkis, Ph.D.,
University of Maryland Eastern Shore, Princess Anne, MD

The Intersection of Toxicology and Metabolic Syndrome
José E. Manautou, Ph.D., University of Connecticut, Storrs, CT

How to Identify True Gene Orthologs Across Species
Constantina Theofanopoulou, Ph.D., Hunter College (CUNY)/Rockefeller University, New York, NY

Diversity the Approach: New Techniques to Increase Diversity in Clinical Trials
Taylour Treadwell, Eli Lilly and Company, Indianapolis, IN

Understanding Genetic Variation: Answers from African Ancestry
Melissa Davis, Ph.D., Weill Cornell Medicine, New York, NY

Neil Hanchard, M.D., Ph.D.,
National Institutes of Health, Bethesda, MD
Thursday, November 10 | 11:25 a.m. – 11:55 a.m.

Exploiting Iron Metabolism for Colorectal Cancer Treatment
Xiang Xue, Ph.D., University of New Mexico, Albuquerque, New Mexico

Interdisciplinary Science will Unravel Cancer’s Complexities
Kian Kani, Ph.D., The Lawrence J. Ellison Institute for Transformative Medicine, Los Angeles, CA

The MICOS Complex is Important for Heart Aging and Heart Failure
Antentor Hinton, Ph.D., Vanderbilt University, Nashville, TN

Investigating and Manipulating Life via Photoactive Chemical Tools
Jonathan Tyson, Ph.D., Stanford University, Stanford, CA

Creating a Disease Model and Curing Diabetes: Challenges, Successes, Paradigms, and Next Steps
Senta Georgia, Ph.D., Children’s Hospital Los Angeles, Los Angeles, CA

Lipid-based Nucleic Acid Delivery for Extrahepatic Tissues
Debadyuti Ghosh, Ph.D., The University of Texas at Austin, Austin, TX

Rhythms and Blues - Infections on the Clock
John Brooks, Ph.D., Princeton University, Princeton, NJ

Can Biology Reduce Society’s Greenhouse Gas Footprint?
Timothy Donohue, Ph.D., University of Wisconsin-Madison, Madison, WI

Sex-specific Regulation of Dopamine Release Dynamics Underlying Substance Use Disorder
Lillian J. Brady, Ph.D., Vanderbilt University, Nashville, TN

Physiology of Obesity-Related Metabolic Disease: Our Time’s True Epidemic
Emilyn Alejandro, Ph.D., University of Minnesota, Minneapolis, MN

Xavier Revelo, Ph.D., University of Minnesota, Minneapolis, MN
ASM is committed to exemplifying inclusive diversity with equity, access and accountability (IDEAA) in the microbial sciences.

Visit ASM’s IDEAA webpage and learn more!
CONCURRENT SCIENTIFIC SPEAKERS

Friday, November 11 | 9:30 a.m. – 10:00 a.m.

**The Mechanism of a Phage Derived Protein Antibiotic**
Bil Clemons, Ph.D., Caltech, Pasadena, CA

**Pediatric Cancers and Health Care Disparities**
Claudia A. Benavente, Ph.D., University of California, Irvine, CA
Nicholas Pannunzio, Ph.D., University of California, Irvine, CA

**Overcoming Barriers in both STEM and ER Protein Quality Control**
Sonya Neal, Ph.D., University of California, San Diego, San Diego, CA

**The Current State of Monkeypox in America**
Robert Drummond, M.D., Ph.D., Montebello & DTLA Urgent Care, Montebello, CA

**Non-coding RNAs in infectious disease: A paradigm shift for therapeutic targets?**
Olanrewaju Morenikeji, Ph.D., University of Pittsburgh, Pittsburgh, PA

**The All of Us Research Program: Powering Diverse and Cutting-Edge Research Through Diverse Datasets**
Karriem S. Watson, D.HSc., M.S., M.P.H., National Institutes of Health, Bethesda, MD

**Sex-specific in vitro Models of Aortic Valve Stenosis**
Brian Aguado, Ph.D., University of California, San Diego, San Diego, CA

**Inflammasome is Amazon Prime for Immune Response**
Reginald McNulty, Ph.D., University of California, Irvine, Irvine, CA

**Impacts of Climate Change on Planetary and Human Health**
Gwen Collman, Ph.D., National Institute of Environmental Health Sciences, Durham, NC
Elizabeth Stulberg, Ph.D., Lewis-Burke Associates, Washington, DC

**Vapes, Cigarettes, and Joints: Uncovering the Neurobiological Mechanisms of Nicotine and Cannabis Use**
Christie D. Fowler, Ph.D., University of California, Irvine, Irvine, CA

**Using Computational Pharmacology and Toxicology Methods to help Create Safe Cosmetic Products**
Corie Ellison, Ph.D., Procter & Gamble
2:00 p.m. - 4:00 p.m.  
**Ballroom B**  
**WORKSHOP 3**  
How to Wow the Reviewers - an NIH K99 Specific Aims Workshop  
(Recommended for Graduate Students and Postdoctoral Scientists)  

**SPEAKERS**  
- Maria Carranza, Ph.D., National Institutes of Health/NIH, Bethesda, MD  
- Jamie Lahvic, Ph.D., National Institutes of Health/NIH, Bethesda, MD  

2:00 p.m. - 4:00 p.m.  
**303 CD**  
**WORKSHOP 4**  
Fair Play: Conversations About Racial Bias in STEMM  
(Recommended for Graduate Students and Postdoctoral Scientists)  

**SPEAKERS**  
- Percy Brown, Jr., MS.Ed., Fair Play Project, University of Wisconsin-Madison, Madison, WI  
- Donald Dantizer, MS.Ed., Fair Play Project, University of Wisconsin-Madison, Madison, WI  

2:00 p.m. - 4:00 p.m.  
**304 AB**  
**WORKSHOP 5**  
NSF and NIH Funding: Strategies for Faculty  
(Recommended for Faculty, Program Directors, and Exhibitors)  

**SPEAKERS**  
- Astrid C. Haugen, M.S.E.H., National Institute of Environmental Health Sciences, National Institutes of Health, Research Triangle Park, NC  
- Casonya M. Johnson, Ph.D., National Science Foundation, Alexandria, VA  
- Paul Murphy, Ph.D., University of Kentucky, Lexington, KY  
- Melissa Nickell, M.S., University of Kentucky, Lexington, KY  
- Brett Spear, Ph.D., University of Kentucky, Lexington, KY  

2:00 p.m. - 4:00 p.m.  
**304 CD**  
**WORKSHOP 6**  
Cultivating Equitable Ecosystems in Academia, Step 1: Focus on Removing Barriers, not Fixing Individuals  
(Recommended for Faculty, Program Directors, and Exhibitors)  

**SPEAKERS**  
- Sherilynn J. Black, Ph.D., Duke University, Durham, NC  
- Beronda L. Montgomery, Ph.D., Grinnell College, Grinnell, IA
CONCURRENT NETWORKING SESSIONS (12 SESSION OPTIONS)

4:15 p.m. – 5:00 p.m.
NETWORKING OPPORTUNITIES IN STEM DISCIPLINES DISCUSSION
(Recommended for All Attendees)

- Biochemistry
- Cancer Biology
- Cell Biology
- Chemistry
- Computational and Systems Biology
- Developmental Biology and Genetics
- Engineering, Physics, and Mathematics
- Immunology
- Microbiology
- Neuroscience
- Physiology & Pharmacology
- Social & Behavioral Sciences and Public Health

5:15 p.m. - 6:00 p.m.
SESSION 4
NIH/NIGMS Research Training Opportunities: How to Choose the Right Program for You
(Recommended for Graduate Students and Postdoctoral Scientists)

SPEAKERS
- Lameese Akacem, Ph.D., National Institutes of Health/ National Institute of General Medical Sciences, Bethesda, MD
- Laurie Stepanek, Ph.D., National Institutes of Health/ National Institute of General Medical Sciences, Bethesda, MD

5:15 p.m. - 6:00 p.m.
SESSION 5
You Got the Interview, Now What!? How to Ace Your Behavioral-based Interview
(Recommended for Graduate Students and Postdoctoral Scientists)

SPEAKERS
- Maria Alvim Gaston, Ph.D., Eli Lilly and Company, Indianapolis, IN
- Joel Soler, Ph.D., Eli Lilly and Company, Indianapolis, IN

CONCURRENT PROFESSIONAL DEVELOPMENT SESSIONS (8 SESSION OPTIONS)

5:15 p.m. - 6:00 p.m.
SESSION 1
Communicating Your Value
(Recommended for Community College, Undergraduate, Postbacalaureate and Graduate Students, and Postdoctoral Scientists)

SPEAKER
- Bill Mahoney, Ph.D., University of Washington, Seattle, WA

5:15 p.m. - 6:00 p.m.
SESSION 2
Be a Star! How to Create a Competitive Graduate School Application
(Recommended for Community College, Undergraduate, and Postbaccalaureate Students)

SPEAKER
- Carlos V. Grijalva, Ph.D., University of California, Los Angeles, Los Angeles, CA

5:15 p.m. - 6:00 p.m.
SESSION 3
Build an Outstanding Personal Statement
(Recommended for Community College, Undergraduate, and Postbacalaureate Students)

SPEAKERS
- Victoria Freedman, Ph.D., Albert Einstein College of Medicine, New York, NY
- Nancy B. Schwartz, Ph.D., University of Chicago, Chicago, IL

5:15 p.m. - 6:00 p.m.
SESSION 6
Opportunities for Extramural Careers at NIAID: Division of Extramural Activities
(Recommended for Graduate Students and Postdoctoral Scientists)

SPEAKER:
- Patricia A. Gonzales Hurtado, Ph.D., National Institutes of Health, National Institute of Allergy and Infectious Diseases, Scientific Review Program, Bethesda, MD

5:15 p.m. - 6:00 p.m.
SESSION 7
How To Become The CEO Of Your Career; Dismantling 3 Disempowering Myths
(Recommended for Faculty, Program Directors, and Exhibitors)

SPEAKER
- Asia Bribiesca-Hedin, M.B.A., M.P.A., University of Southern California / CEO, Bridgewell Professional Services
Thursday, November 10

5:15 p.m. - 6:00 p.m.

SESSION 8
Enhancing Access and Student Success through The Leadership Alliance (TLA) Workshops
(Recommended for Faculty, Program Directors, and Exhibitors)

SPEAKERS
- Gina Astorini, Ed.D., The Leadership Alliance, Providence, RI
- Don Brunson, Ph.D., Vanderbilt University, Nashville, TN

6:30 p.m. - 7:15 p.m.

NETWORKING DINNER

7:30 p.m. - 8:15 p.m.

PREP SCHOLARS MEET & GREET
(By Invitation Only)

8:15 p.m. - 9:00 p.m.

NETWORKING SESSION
LGBTQIA+ Networking Social & Tips on Succeeding as a Scientist
(Recommended for All Attendees)

SPEAKER
- Jenn Wiggins, LPC, National Institutes of Health, OITE, Bethesda, MD

MEETINGS (3 MEETING OPTIONS)

7:30 p.m. - 8:30 p.m.

Bridges to Baccalaureate and BUILD Program Directors Meeting
(Recommended for Current and Aspirational Directors for Program-Specific NIGMS Programs)

7:30 p.m. - 8:30 p.m.

NIGMS T32 Program Directors Meeting
(Recommended for Current and Aspirational Directors for Program-Specific NIGMS Programs)

7:30 p.m. - 8:30 p.m.

Bridges to Doctorate Program Directors Meeting
(Recommended for Current and Aspirational Directors for Program-Specific NIGMS Programs)

MEETINGS (2 MEETING OPTIONS)

8:30 p.m. - 9:30 p.m.

PREP Program Directors Meeting
(By Invitation Only)

8:30 p.m. - 9:30 p.m.

IMSD AND GRISE Program Directors Meeting
(Recommended for Current and Aspirational Directors for Program-Specific NIGMS Programs)
Reach the Program of Your Dreams

Visit the GRE booth to get started with a $50 discount code.

Every component of your grad school application is a chance to connect with those reviewing it. With the GRE, you can ensure you are painting a clear, vibrant picture of your potential. Visit our booth to learn how the GRE can be your bridge to grad school and get a $50 discount.

Scan the QR code to learn more.
9:45 a.m. - 10:15 a.m.
SESSION 3
The Eye: The Organ with the Stickiest Vasculature in Diabetes
(Recommended for All Attendees)

SPEAKER
• Emma M. Lessieur-Contreras, M.D., Ph.D., University of California, Irvine, Irvine, CA

9:45 a.m. - 10:15 a.m.
SESSION 4
Interdisciplinary Approach to Control Biofilm Formation Using Natural Extracts and Biocompatible Polymers
(Recommended for All Attendees)

SPEAKER
• Victoria V. Volkis, Ph.D., University of Maryland Eastern Shore, Princess Anne, MD

9:45 a.m. - 10:15 a.m.
SESSION 5
How to Identify True Gene Orthologs Across Species
(Recommended for All Attendees)

SPEAKER
• Constantina Theofanopoulou, Ph.D., Hunter College (CUNY)/Rockefeller University, New York, NY

9:45 a.m. - 10:15 a.m.
SESSION 6
Understanding Genetic Variation: Answers from African Ancestry
(Recommended for All Attendees)

MODERATOR
• Debra Murray, Ph.D., Baylor College of Medicine, Houston, TX

SPEAKERS
• Melissa Davis, Ph.D., Weill Cornell Medicine, New York, NY
• Neil Hanchard, M.D., Ph.D., National Institutes of Health, Bethesda, MD

9:45 a.m. - 10:15 a.m.
SESSION 7
Microfabrication Approaches to Control Stem Cell Fate and Function
(Recommended for All Attendees)

SPEAKER
• Quinton Smith, Ph.D., University of California, Irvine, Irvine, CA

9:45 a.m. - 10:15 a.m.
SESSION 8
The Novel Coronavirus (SARS-CoV-2), Monkeypox Virus, and Our Immune System
(Recommended for All Attendees)

SPEAKERS
• Hossam Ashour, Ph.D., B. Pharm (Hon.), University of South Florida, St. Petersburg, FL
• Hatem Elshabrawy, Ph.D., Sam Houston State University, Conroe, TX

9:45 a.m. - 10:15 a.m.
SESSION 9
Intoxicated! Discovery of New Bacterial Toxins Reveals Novel Biochemical Pathways
(Recommended for All Attendees)

SPEAKER
• Aria Eshraghi, Ph.D., University of Florida, Gainesville, FL

9:45 a.m. - 10:15 a.m.
SESSION 10
See conference program for more details
(Recommended for All Attendees)

9:45 a.m. - 10:15 a.m.
SESSION 11
The Intersection of Toxicology and Metabolic Syndrome
(Recommended for All Attendees)

SPEAKER
• José E. Manautou, Ph.D., University of Connecticut, Storrs, CT

9:45 a.m. - 10:15 a.m.
SESSION 12
Diversify the Approach: New Techniques to Increase Diversity in Clinical Trials
(Recommended for All Attendees)

SPEAKER
• Taylour Treadwell, Eli Lilly and Company, Indianapolis, IN
CONCURRENT PROFESSIONAL DEVELOPMENT SESSIONS
(7 SESSION OPTIONS)

10:30 a.m. - 11:15 a.m. 304 AB
SESSION 1
Make a Positive Impression: How to Excel in Your Graduate School Interviews
(Recommended for Community College, Undergraduate, and Postbaccalaureate Students)

SPEAKERS
- Patricia Cameron, Ph.D., Augusta University, Augusta, GA
- Nicquet Blake, Ph.D., University of California, San Francisco, CA
- Joshua Hall, Ph.D., Howard Hughes Medical Institute, Chevy Chase, MD
- Cherilynn Shadding, Ph.D., The University of Texas MD Anderson Cancer Center, UT Health Graduate School of Biomedical Sciences, Houston, TX
- Cynthia Wright, Ph.D., Medical University of South Carolina, Charleston, SC

10:30 a.m. - 11:15 a.m. 304 CD
SESSION 2
Picking the Perfect Graduate Program for You
(Recommended for Students interested in the Ph.D. track)

MODERATOR
- Lori Conlan, Ph.D., National Institutes of Health, OITE, Bethesda, MD

SPEAKERS
- Discussion Panel

10:30 a.m. - 11:15 a.m. Ballroom A
SESSION 3
M.D.- Ph.D., Is it Right for Me?
(Recommended for Students interested in the M.D., Ph.D. track)

SPEAKERS
- Dimitri Cadet, B.S., University of California, Los Angeles, MD-PhD, Los Angeles, CA
- Kayla Jackson, B.S., University of Southern California, Los Angeles, CA
- Damani Piggott, M.D., Ph.D., The Johns Hopkins University, Baltimore, MD
- Gabrielle Price, B.S., Icahn School of Medicine at Mount Sinai MD-PhD, New York, NY
- Jose Sandoval, B.S., University of California, San Diego, San Diego, CA

10:30 a.m. - 11:15 a.m. Ballroom B
SESSION 4
Transitioning from Academia to Industrial Research-Career Paths and Opportunities in STEM
(Recommended for Graduate Students and Postdoctoral Scientists)

SPEAKERS
- Chris Burcham, Ph.D., Eli Lilly and Company, Indianapolis, IN
- Kathryn Wittenberg, M.S., Eli Lilly and Company, Indianapolis, IN

10:30 a.m. - 11:15 a.m. 303 AB
SESSION 5
Belonging in Academia: The Positive Impact of BIPOC Founded Organizations
(Recommended for Graduate Students and Postdoctoral Scientists)

SPEAKERS
- Brionna Davis-Reyes, Ph.D., Yale University, New Haven, CT
- Christine Vazquez, Ph.D., University of Pennsylvania, Philadelphia, PA
- Patricka Williams-Simon, Ph.D., University of Pennsylvania, Philadelphia, PA

10:30 a.m. - 11:15 a.m. 303 CD
SESSION 6
Developing a Holistic Graduate Program: Ensuring Student Success throughout the Student Lifecycle
(Recommended for Faculty, Program Directors, and Exhibitors)

SPEAKERS
- Brandy Alexis, Tulane University, New Orleans, LA
- Carlos Grijalva, Ph.D., University of California, Los Angeles, Los Angeles, CA
- Bennetta Horne, Ph.D., Tulane University, New Orleans, LA
- Weiwei Xu, Ph.D., Tulane University, New Orleans, LA

10:30 a.m. - 11:15 a.m. Ballroom C
SESSION 7
How We Learn...And How We Don’t ★
(Recommended for Faculty, Program Directors, and Exhibitors)

SPEAKER
- Robert A. Duke, Ph.D., The University of Texas at Austin, Austin, TX
CONCURRENT SCIENTIFIC SESSIONS (12 SESSION OPTIONS)

11:25 a.m. - 11:55 a.m. 204 ABC
SESSION 1
Exploiting Iron Metabolism for Colorectal Cancer Treatment
(Recommended for All Attendees)

SPEAKER
• Xiang Xue, Ph.D., University of New Mexico, Albuquerque, New Mexico

11:25 a.m. - 11:55 a.m. Ballroom D
SESSION 2
Interdisciplinary Science will Unravel Cancer’s Complexities
(Recommended for All Attendees)

SPEAKER
• Kian Kani, Ph.D., The Lawrence J. Ellison Institute for Transformative Medicine, Los Angeles, CA

11:25 a.m. - 11:55 a.m. 304 AB
SESSION 3
The MICOS Complex is Important for Heart Aging and Heart Failure
(Recommended for All Attendees)

SPEAKER
• Antentor Hinton, Ph.D., Vanderbilt University, Nashville, TN

11:25 a.m. - 11:55 a.m. 304 CD
SESSION 4
Investigating and Manipulating Life via Photoactive Chemical Tools
(Recommended for All Attendees)

SPEAKER
• Jonathan Tyson, Ph.D., Stanford University, Stanford, CA

11:25 a.m. - 11:55 a.m. 210 AB
SESSION 5
See conference program for more details
(Recommended for All Attendees)

11:25 a.m. - 11:55 a.m. Ballroom E
SESSION 6
Creating a Disease Model and Curing Diabetes: Challenges, Successes, Paradigms, and Next Steps
(Recommended for All Attendees)

SPEAKER
• Senta Georgia, Ph.D., Children’s Hospital Los Angeles, Los Angeles, CA

11:25 a.m. - 11:55 a.m. 210 CD
SESSION 7
Lipid-based Nucleic Acid Delivery for Extrahepatic Tissues
(Recommended for All Attendees)

SPEAKER
• Debadyuti Ghosh, Ph.D., The University of Texas at Austin, Austin, TX

11:25 a.m. - 11:55 a.m. 303 AB
SESSION 8
Rhythms and Blues - Infections on the Clock
(Recommended for All Attendees)

SPEAKER
• John Brooks, Ph.D., Princeton University, Princeton, NJ

11:25 a.m. - 11:55 a.m. Ballroom C
SESSION 9
Can Biology Reduce Society’s Greenhouse Gas Footprint?
(Recommended for All Attendees)

SPEAKER
• Timothy Donohue, Ph.D., University of Wisconsin-Madison, Madison, WI

11:25 a.m. - 11:55 a.m. 303 CD
SESSION 10
Sex-specific Regulation of Dopamine Release Dynamics Underlying Substance Use Disorder
(Recommended for All Attendees)

SPEAKER
• Lillian J. Brady, Ph.D., Vanderbilt University, Nashville, TN

11:25 a.m. - 11:55 a.m. 210 CD
SESSION 11
Physiology of Obesity-Related Metabolic Disease: Our Time’s True Epidemic
(Recommended for All Attendees)

SPEAKERS
• Emlyn Alejandro, Ph.D., University of Minnesota, Minneapolis, MN
• Xavier Revelo, Ph.D., University of Minnesota, Minneapolis, MN

11:25 a.m. - 11:55 a.m. Ballroom B
SESSION 12
See conference program for more details
(Recommended for All Attendees)

12:15 p.m. - 1:00 p.m. Hall A
NETWORKING LUNCH
1:10 p.m. - 1:55 p.m.  
**SCIENTIFIC KEYNOTE ADDRESS**  
**ACC North 100**  
Academic Creativity, Strategic Alliances and Diplomacy to Catalyze the Vaccine Sciences in Tropical Medicine  
*(Recommended for All Attendees)*

**MODERATOR**  
- Alfredo Torres, Ph.D., University of Texas Medical Branch (UTMB), Galveston, TX

**SPEAKER**  
- Maria Elena Bottazzi, Ph.D., FASTMH, Baylor University, Waco, TX

2:10 p.m. - 5:40 p.m.  
**EXHIBIT AND POSTER HALL OPEN**

2:10 p.m. - 3:10 p.m.  
**POSTER SESSION 1 (A)**

3:25 p.m. - 4:25 p.m.  
**POSTER SESSION 2 (B)**

4:40 p.m. - 5:40 p.m.  
**POSTER SESSION 3 (C)**

6:00 p.m. - 7:15 p.m.  
**STUDENT ORAL PRESENTATIONS 1**  
*(Recommended for All Attendees)*

**Oral Session 1:** Biochemistry and Molecular Biology  
O-001 Miray Girgus  
O-002 Marisa Warren  
O-003 Jose Velez  
O-004 Catharine Cipriano  
O-005 Mia Sanchez

**Oral Session 1:** Cancer Biology  
O-006 Isha Hawkins  
O-007 Leslie McClintock  
O-008 Jacqueline Gomez-Villa  
O-009 Aijalon Underwood  
O-010 Jordaan Ewald

**Oral Session 1:** Cell Biology  
O-011 María Vélez Colón  
O-012 Kyla Stembridge  
O-013 Tyra Goodluck  
O-014 Jaleisha Velez-Velázquez  
O-015 Olivia Morgenthaler

**Oral Session 1:** Chemistry & Biochemistry and Molecular Biology  
O-016 Soziema Dauda  
O-017 Claudia Cruz-Santiago  
O-018 Andrea Mancia  
O-019 Novia Mann

**Oral Session 2:** Developmental Biology and Genetics  
O-026 Daniela Ramos  
O-027 Betty Dessie  
O-028 Rosa Morales  
O-029 Niara Gray  
O-030 Rachel Wyetzner

**Oral Session 2:** Engineering, Physics and Mathematics  
O-031 Harrison Miller  
O-032 Natah Barakat  
O-033 Oluuwunke Kolawole  
O-034 Aislin West  
O-035 Jean Jerome

**Oral Session 2:** Immunology  
O-036 Darryl Sams  
O-037 Christian Cepeda  
O-038 Trinitee Oliver  
O-039 Amy Yu  
O-040 Sergio Butron

**Oral Session 2:** Microbiology  
O-041 Cierra Ord  
O-043 Rayshaun Pettit  
O-044 Danielle Winston  
O-045 Jessica Oros

**Oral Session 2:** Neuroscience  
O-046 Xavier Smith  
O-047 Kathleen Bostick  
O-048 Emily Church  
O-049 Saleha Mir  
O-050 Tammy Nguyen

**Oral Session 2:** Physiology and Pharmacology  
O-051 Youstina Labib  
O-052 Iyineeoluo Owolude  
O-053 Atuahene Adu-Gyamfi  
O-054 Lenondre King  
O-055 Jaelen Bethea

**Oral Session 2:** Social and Behavioral Sciences and Public Health  
O-056 Kemani Hunter  
O-057 Alexis Carlon  
O-058 Chasir Haynes  
O-059 Madeleine Phan  
O-060 Sehrish Ali
Friday, November 11

7:00 a.m. - 5:00 p.m.
REGISTRATION OPEN

7:30 a.m. - 8:15 a.m.
Hall A
CONCURRENT PROFESSIONAL DEVELOPMENT SESSIONS (7 SESSION OPTIONS)

8:30 a.m. - 9:15 a.m.
Ballroom A
SESSION 1
Time Management & Goal Setting
(Recommended for All Students)

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

8:30 a.m. - 9:15 a.m.
303 AB
SESSION 2
Navigating Without Assimilating: Strategies for Succeeding in STEM Research Environments
(Recommended for Community College, Undergraduate, and Postbaccalaureate Students)

SPEAKERS
• AZA Allsop, M.D., Ph.D., Yale University, Cambridge, MA
• Bruce Birren, Ph.D., Broad Institute, Cambridge, MA
• Dervin Cunningham, M.D., Yale University, Cambridge, MA

8:30 a.m. - 9:15 a.m.
Ballroom B
SESSION 3
Effective Strategies for Applying to Competitive Scholarships
(Recommended for Community College, Undergraduate, and Postbaccalaureate Students)

SPEAKERS
• Joseph C. Chen, Ph.D., San Francisco State University, San Francisco, CA
• Triscia Hendrickson, Ph.D., Morehouse College, Atlanta, GA
• John Mateja, Ph.D., Goldwater Scholarship Foundation, Alexandria, VA
• Malik McRae, Morehouse College, Atlanta, GA
• Annabelle Recinos, California State University, Fullerton, CA

CONCURRENT PROFESSIONAL DEVELOPMENT SESSIONS (2 SESSION OPTIONS)

7:15 p.m. - 8:00 p.m.
Hall A
NETWORKING DINNER

8:00 p.m. - 9:00 p.m.
207 D
MAPRS PROGRAM DIRECTOR MEETING
(By Invitation Only)

CONCURRENT PROFESSIONAL DEVELOPMENT SESSIONS (7 SESSION OPTIONS)

8:00 p.m. - 9:30 p.m.
Ballroom E
SESSION 1
Accessibility Panel Discussion
(Recommended for All Attendees)

8:00 p.m. - 9:30 p.m.
304 CD
SESSION 2
The Art of Mental Revolution: A Musical Exploration
(Recommended for All Students)

SPEAKERS
• AZA Allsop, M.D., Ph.D., Yale University, Cambridge, MA
• Bruce Birren, Ph.D., Broad Institute, Cambridge, MA
• Dervin Cunningham, M.D., Yale University, Cambridge, MA

8:00 p.m. - 9:30 p.m.
201 ABC
Eli Lilly and Company Reception
(By Invitation Only)
8:30 a.m. - 9:15 a.m.  Ballroom C
SESSSION 4
Develop Your Mentoring Team: A New Look at Building Strategic Relationships to Maximize Success in Graduate School and Beyond

This session is being sponsored by Penn State University
(Recommended for Graduate Students and Postdoctoral Scientists)

SPEAKERS
• Margherita Cantorna, Ph.D., Penn State Huck Institutes of the Life Sciences, State College, PA
• Dana Coval-Dinant, Penn State University, State College, PA
• Donna Korzick, Ph.D., Penn State Huck Institutes of the Life Sciences, State College, PA
• Cesar Matamoros, Ph.D., U.S. Department of Agriculture
• Shaneice Nettleford, B.S., Penn State University, State College, PA

8:30 a.m. - 9:15 a.m.  303 CD
SESSSION 5
NIH Funding Opportunities for Graduate Students through Junior Faculty that You Should Know About! (Recommended for Graduate Students and Postdoctoral Scientists)

SPEAKERS
• Maria Carranza, Ph.D., National Institute on Aging, National Institutes of Health, Bethesda, MD
• Kenneth Gibbs, Ph.D., National Institute of General Medical Sciences, National Institutes of Health, Bethesda, MD
• Timothy Gondré-Lewis, Ph.D., National Institute of Allergy and Infectious Disease, National Institutes of Health, Bethesda, MD
• Patricia A. Labosky Ph.D., National Institutes of Health, Bethesda, MD

8:30 a.m. - 9:15 a.m.  304 AB
SESSSION 6
New Strategies and Trends for Assessing Program and Trainee Success
(Recommended for Faculty, Program Directors, and Exhibitors)

SPEAKERS
• Sherilynn Black, Ph.D., Duke University, Durham, NC
• Victoria Freedman, Ph.D., Albert Einstein College of Medicine, New York, NY
• Nancy B. Schwartz, Ph.D., University of Chicago, Chicago, IL
• David Van Vactor, Ph.D., Harvard University, Boston, MA

8:30 a.m. - 9:15 a.m.  304 CD
SESSSION 7
IIIB: Identity, Intersectionality, and Implicit Bias
(Recommended for Faculty, Program Directors, and Exhibitors)

SPEAKER
• Debra Ragland, Ph.D., Duke University, Durham, NC

CONCURRENT SCIENTIFIC SESSIONS (12 SESSION OPTIONS)

9:30 a.m. - 10:00 a.m.  204 ABC
SESSION 1
The Mechanism of a Phage Derived Protein Antibiotic
(Recommended for All Attendees)

SPEAKER
• Bil Clemons, Ph.D., Caltech, Pasadena, CA

9:30 a.m. - 10:00 a.m.  Ballroom D
SESSION 2
Pediatric Cancers and Health Care Disparities
(Recommended for All Attendees)

SPEAKERS
• Claudia A. Benavente, Ph.D., University of California, Irvine, CA
• Nicholas Pannunzio, Ph.D., University of California, Irvine, CA

9:30 a.m. - 10:00 a.m.  304 AB
SESSION 3
Overcoming Barriers in both STEM and ER Protein Quality Control
(Recommended for All Attendees)

SPEAKER
• Sonya Neal, Ph.D., University of California, San Diego, San Diego, CA

9:30 a.m. - 10:00 a.m.  304 CD
SESSION 4
The Current State of Monkeypox in America
(Recommended for All Attendees)

SPEAKER
• Robert Drummond, M.D., Ph.D., Montebello & DTLA Urgent Care, Montebello, CA
9:30 a.m. - 10:00 a.m.  
**SESSION 5**  
Non-Coding RNAs in Infectious Disease: A Paradigm Shift for Therapeutic Targets?  
(Recommended for All Attendees)  

**SPEAKER**  
• Olanrewaju Morenikeji, Ph.D., University of Pittsburgh, Pittsburgh, PA  

9:30 a.m. - 10:00 a.m.  
**SESSION 6**  
The All of Us Research Program: Powering Diverse and Cutting-Edge Research Through Diverse Datasets  
(Recommended for All Attendees)  

**SPEAKER**  
• Karriem S. Watson, D.HSc., M.S., M.P.H., National Institutes of Health, Bethesda, MD  

9:30 a.m. - 10:00 a.m.  
**SESSION 7**  
Sex-specific in vitro Models of Aortic Valve Stenosis  
(Recommended for All Attendees)  

**SPEAKER**  
• Brian Aguado, Ph.D., University of California, San Diego, San Diego, CA  

9:30 a.m. - 10:00 a.m.  
**SESSION 8**  
Inflammasome is Amazon Prime for Immune Response  
(Recommended for All Attendees)  

**SPEAKER**  
• Reginald McNulty, Ph.D., University of California, Irvine, Irvine, CA  

9:30 a.m. - 10:00 a.m.  
**SESSION 9**  
Impacts of Climate Change on Planetary and Human Health  
(Recommended for All Attendees)  

**MODERATOR**  
• Timothy Donohue, Ph.D., University of Wisconsin-Madison, Madison, WI  

**SPEAKERS**  
• Gwen Collman, Ph.D., National Institute of Environmental Health Sciences, Durham, NC  
• Elizabeth Stulberg, Ph.D., Lewis-Burke Associates, Washington, DC  

9:30 a.m. - 10:00 a.m.  
**SESSION 10**  
Vapes, Cigarettes, and Joints: Uncovering the Neurobiological Mechanisms of Nicotine and Cannabis Use  
(Recommended for All Attendees)  

**SPEAKER**  
Christie Fowler, Ph.D., University of California Irvine, Irvine, CA  

9:30 a.m. - 10:00 a.m.  
**SESSION 11**  
Using Computational Pharmacology and Toxicology Methods to help Create Safe Cosmetic Products  
(Recommended for All Attendees)  

**SPEAKER**  
• Corie Ellison, Ph.D., Procter & Gamble  

9:30 a.m. - 10:00 a.m.  
**SESSION 12**  
See conference program for more details  
(Recommended for All Attendees)  

10:15 a.m. - 11:00 a.m.  
**SCIENTIFIC KEYNOTE ADDRESS**  
Addressing Health Equity through Health Literacy: The Powerful Role of Hip Hop  
(Recommended for All Attendees)  

**MODERATOR**  
• Crystal Watkins, M.D., Ph.D., Medstar Harbor Hospital, Baltimore, MD  

**SPEAKER**  
• Olajide Williams, M.D., M.S., Columbia University Medical Center, Founder and President, Hip Hop Public Health, New York City, NY
CONCURRENT PROFESSIONAL DEVELOPMENT SESSIONS (7 SESSION OPTIONS)

11:15 a.m. - 12:00 p.m.  Ballroom A
SESSION 1
The Ins and Outs of Graduate School
(Recommended for Community College, Undergraduate, and Postbaccalaureate Students)

MODERATOR
• Nicquet Blake, Ph.D., University of California, San Francisco, San Francisco, CA

PANELISTS
• Senior Graduate Student Panelists

11:15 a.m. - 12:00 p.m.  Ballroom B
SESSION 2
How to Build Your Online Presence as a Scientist
(Recommended for Community College, Undergraduate, and Postbaccalaureate Students)

SPEAKERS
• Ben Andrews, California State University, Northridge, Northridge, CA
• Hansook Oh, M.A., California State University, Northridge, Northridge, CA
• Christa Reynolds, M.A., University of Arizona, Tucson, AZ

11:15 a.m. - 12:00 p.m.  303 AB
SESSION 3
Playing Scientist: Traits of Highly Successful Researchers
(Recommended for Community College, Undergraduate, and Postbaccalaureate Students)

SPEAKER
• Tejas Bouklas, Ph.D., University of California Los Angeles, Los Angeles, CA

11:15 a.m. - 12:00 p.m.  303 CD
SESSION 4
NIH/NIGMS Research and Research Training Opportunities for Individual and Institutional Applicants, from Graduate Student to Faculty
(Recommended for Graduate Students and Postdoctoral Scientists)

SPEAKERS
• Sydella A. Blatch, Ph.D., National Institutes of Health, National Institute of General Medical Sciences, Bethesda, MD
• Shakira M. Nelson, Ph.D., National Institutes of Health, National Institute of General Medical Sciences, Bethesda, MD

11:15 a.m. - 12:00 p.m.  Ballroom C
SESSION 5
If You Don’t Publish It, You Didn’t Do It
(Recommended for Graduate Students and Postdoctoral Scientists)

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

11:15 a.m. - 12:00 p.m.  304 AB
SESSION 6
How We Learn…And How We Don’t ★
(Recommended for Faculty, Program Directors, and Exhibitors)

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

11:15 a.m. - 12:00 p.m.  304 CD
SESSION 7
Making the Uncomfortable Comfortable - Changing Culture to Ensure Inclusion in Science
(Recommended for Faculty, Program Directors, and Exhibitors)

SPEAKER
• Emmanuel Adukwu, Ph.D., University of the West of England, Bristol, UK

11:15 a.m. - 12:00 p.m.  207 D
TWD-PDO STEERING COMMITTEE MEETING
(By Invitation Only)

12:15 p.m. - 1:00 p.m.  Hall A
NETWORKING LUNCH

1:15 p.m. - 4:35 p.m.  Hall BC
EXHIBIT AND POSTER HALL OPEN

1:15 p.m. - 2:15 p.m.  Hall C
POSTER SESSION 4 (D)

2:10 p.m. - 3:10 p.m.  207 D
TWD-PDO STEERING COMMITTEE AND NIH PROGRAM OFFICERS
(By Invitation Only)

2:25 p.m. - 3:25 p.m.  Hall C
POSTER SESSION 5 (E)

3:35 p.m. - 4:35 p.m.  Hall C
POSTER SESSION 6 (F)
4:45 p.m. - 5:30 p.m.  
**SCIENTIFIC KEYNOTE ADDRESS**  
STEM: The Importance of Science, Technology, Engineering & Math  
(Recommended for All Attendees)  

**MODERATOR**  
- Beronda Montgomery, Ph.D., Grinnell College, Grinnell, IA  

**SPEAKER**  
- Mae Jemison, M.D., The Jemison Group, Inc., 100 Year Starship (100YSS), Former NASA Astronaut

5:45 p.m. - 7:00 p.m.  
**STUDENT ORAL PRESENTATIONS**  
(Recommended for All Attendees)  

**Oral Session 2:** Biochemistry and Molecular Biology  
Room 204 ABC  
- O-061 Shamal Basaria  
- O-062 Dinachi Okonkwo  
- O-063 Fairine Ahmed  
- O-064 Mohab Idris  
- O-065 Andoni Nolasco-Ramirez

**Oral Session 2:** Biochemistry and Molecular Biology and Cell Biology  
Room 210 AB  
- O-066 Shane Taylor  
- O-067 Mihir Upadhye  
- O-068 Caelia Phillips  
- O-069 Amir Ledbetter  
- O-070 Michael Ack

**Oral Session 2:** Cancer Biology  
Ballroom D  
- O-071 Isaiah Gibbons  
- O-072 Kevin Gibbons  
- O-073 Oluwatomisin Olajide  
- O-074 Jaweria Bakar  
- O-075 Darvin Huang

**Oral Session 2:** Cancer Biology and Microbiology  
Ballroom C  
- O-076 Vicki Yang  
- O-077 Sangita Chakraborty  
- O-078 George Morcos  
- O-079 Furgan Mahdi  
- O-080 Victoria Valentin

**Oral Session 2:** Developmental Biology and Genetics  
Ballroom E  
- O-081 Derick Diaz  
- O-082 Jungwon Lee  
- O-083 Yvette Sol  
- O-084 Elena Singer-Freeman  
- O-085 Jianyi Du

7:15 p.m. - 9:30 p.m.  
**20th Anniversary Celebration**
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00 a.m. - 1:00 p.m.</td>
<td>Registration Open</td>
</tr>
<tr>
<td>8:00 a.m. - 9:00 a.m.</td>
<td>Continental Breakfast</td>
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<tr>
<td>8:15 a.m. - 9:15 a.m.</td>
<td>Exhibitor Feedback Session &amp; Breakfast (For Exhibitors Only)</td>
</tr>
<tr>
<td>8:15 a.m. - 9:15 a.m.</td>
<td>MARC and Urise Program Directors Meeting (Recommended for Current and Aspirational Directors for Program-Specific NIGMS Programs)</td>
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<tr>
<td>9:30 a.m. - 11:30 a.m.</td>
<td>Exhibit Hall Open</td>
</tr>
<tr>
<td>9:30 a.m. - 10:30 a.m.</td>
<td>Poster Session 7 (G) Virtual</td>
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<tr>
<td>10:30 a.m. - 11:30 a.m.</td>
<td>Poster Session 8 (H) Virtual</td>
</tr>
<tr>
<td>5:00 p.m. - 5:30 p.m.</td>
<td>Closing Keynote Address Conversations with ABRCMS Alumni: Where Are They Now?</td>
</tr>
<tr>
<td>MODERATOR</td>
<td>• Juan Ramirez Lugo, Ph.D., University of Puerto Rico, Rio Piedras, Puerto Rico</td>
</tr>
</tbody>
</table>
| ABRCMS Alumni Panelists | • Patricia Salgado Pirbhoy, Ph.D., University of California, Irvine, Irvine, CA  
|                | • Kennita Johnson, Ph.D., University of North Carolina, Chapel Hill, NC  
|                | • Robert Drummond, M.D., Ph.D., Montebello & DTLA Urgent Care, Montebello, CA |
| 5:30 p.m. - 7:30 p.m. | Awards Ceremony and Recognition                                       |
| 7:45 p.m. - 8:45 p.m. | Closing Dinner                                                        |
Poster Hall Map

ALL ABRCMS POSTERS AND POSTER PRESENTATIONS ARE LOCATED IN HALL C OF THE ANAHEIM CONVENTION CENTER.
### Poster Presentation Numbers by Scientific Discipline

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemistry and Molecular Biology</td>
<td>001-044</td>
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<tr>
<td>Cancer Biology</td>
<td>045-074</td>
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<tr>
<td>Cell Biology</td>
<td>075-092</td>
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<tr>
<td>Chemistry</td>
<td>093-110</td>
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<tr>
<td>Computational and Systems Biology</td>
<td>111-125</td>
</tr>
<tr>
<td>Developmental Biology and Genetics</td>
<td>126-150</td>
</tr>
<tr>
<td>Engineering, Physics, and Mathematics</td>
<td>151-172</td>
</tr>
<tr>
<td>Immunology</td>
<td>173-193</td>
</tr>
<tr>
<td>Microbiology</td>
<td>194-227</td>
</tr>
<tr>
<td>Neuroscience</td>
<td>228-271</td>
</tr>
<tr>
<td>Physiology and Pharmacology</td>
<td>272-290</td>
</tr>
<tr>
<td>Social and Behavioral Sciences and Public Health</td>
<td>291-327</td>
</tr>
</tbody>
</table>

### ePoster Presentation Numbers by Scientific Discipline

- **Biochemistry and Molecular Biology:** 001-009
- **Cancer Biology:** 010-021
- **Cell Biology:** 022-027
- **Chemistry:** 028-031
- **Computational and Systems Biology:** 032-036
- **Developmental Biology and Genetics:** 037-043
- **Engineering, Physics and Mathematics:** 044-050
- **Immunology:** 051-055
- **Microbiology:** 056-069
- **Neuroscience:** 070-080
- **Physiology and Pharmacology:** 081-087
- **Social and Behavioral Sciences and Public Health:** 088-100
ALL ABRCMS EXHIBITS ARE LOCATED IN HALL B OF THE ANAHEIM CONVENTION CENTER.
Exhibitor Listing

ACOM - Alabama College of Osteopathic Medicine .......... 221
AEOp Apprenticeships and Fellowships .................... 256
AIM-AHEAD .................................................................. 249
Albert Einstein College of Medicine - Graduate Programs in the Biomedical Sciences ................................. 332
American Aging Association ........................................ 671
American Association for Cancer Research (AACR) ........ 352
American Association of Veterinary Medical Colleges ........................................................................ 269, 268
American Chemical Society ........................................ 267, 265
American Dental Education Association ..................... 264
American Physical Therapy Association ..................... 254
American Physiological Society ................................. 740
American Society for Biochemistry and Molecular Biology (ASBMB) .................. 742
American Society for Cell Biology (ASCB) ..................... 870
American Society for Investigative Pathology (ASIP) .... 745
American Society for Microbiology (ASM) ................. 400
American Society for Pharmacology and Experimental Therapeutics ........................................... 748
American Society for Tropical Medicine and Hygiene .... 284
American Society of Hematology ................................. 266
American Society of Human Genetics ........................ 846
Arizona State University ........................................... 677
Arizona State University,
School of Molecular Sciences ..................................... 681
Arkansas College of Osteopathic Medicine ................. 200
Association of American Medical Colleges .............. 246
Auburn University College of Sciences and Mathematics ....................................................... 659
Augusta University - The Graduate School ................. 331
Battelle ..................................................................... 675
Baylor College of Medicine ........................................ 774
Baylor College of Medicine Graduate School
of Biomedical Sciences ............................................ 532, 534
Baylor University Graduate School .............................. 356
Behavioral and Systems Neuroscience Graduate Program, Oregon Health & Science University ............... 245
Big Ten Academic Alliance ........................................ 821
Binghamton University - State University of New York .................................................. 357
Biological and Biomedical Sciences Program
at Yale (BBS) ................................................................ 649
Boston University Biological and Environmental Sciences ...................................................... 829
Boston University Chobanian & Avedisian School of Medicine .............................................. 827
Boston University College of Engineering ...................... 831
Boston University School of Public Health .................. 825
Boston University, Bioinformatics .............................. 828
Boston University-Graduate Program for Neuroscience ................................................. 830
Brandeis University Division of Science ........................ 665
Broad Institute of MIT and Harvard ............................ 646
Brookhaven National Laboratory ................................ 370
Brown University School of Public Health .................... 549
Brown University, Graduate School .............................. 226
Burrell College of Osteopathic Medicine ........................ 203
California Institute of Technology (Caltech) .............. 465
California School of Podiatric Medicine ..................... 564
Carnegie Mellon University ....................................... 367
Case Western Reserve University ............................... 558
Chapman University ................................................ 762
Children’s Hospital of Philadelphia Research Institute ... 812
Children’s Hospital Los Angeles ................................. 381
Clemson University College of Engineering,
Computing & Applied Sciences ................................ 874
Cleveland Clinic Lerner Research Institute and
Lerner College of Medicine ...................................... 567
Cold Spring Harbor Laboratory .................................. 552
Colgate-Palmolive Company ....................................... 285
College of Medicine and Life Sciences, The University of Toledo .................................................. 579
Columbia University .................................................. 453
Columbia University Department of Biological Sciences .................................................. 479
Columbia University Graduate School of Arts & Sciences .................................................. 448
Columbia University Irving Medical Center ...................... 454
Columbia University Irving Medical Center,
Hip Hop Public Health ............................................. 755
Columbia University Mailman School of Public Health .................................................. 455
Columbia University, The Fu Foundation
School of Engineering ................................................ 449
Cornell Biomedical and Biological Sciences
PhD Program .......................................................... 431
Cornell University Graduate School ............................. 433
Cornell/Rockefeller/Sloan Kettering Tri-Institutional
PhD Programs ........................................................ 435
D. E. Shaw Research ................................................ 679
Dartmouth ............................................................. 463, 562
David Geffen School of Medicine at UCLA .................... 626
Des Moines University, Colleges of Osteopathic Medicine, Pediatric Medicine & Surgery,
and Health Sciences ................................................ 211
Drexel University, College of Medicine ....................... 446
Duke University School of Medicine
& Graduate School ................................................... 424
Duquesne University ................................................... 374
Eli Lilly ....................................................................... 364
EMD Serono ............................................................. 384
Emory University, Laney Graduate School ...................... 713, 717, 715, 816
Endocrine Society ..................................................... 278
ETS ......................................................................... 574
EXPAND NSF - NRT ................................................... 529
Fred Hutchinson Cancer Center .................................. 813
Fulgent Genetics ......................................................... 757
Genentech ................................................................. 741
Exhibitor Listing

Genomic Data Science Community Network .......... 475
Genomics Education Partnership .......................... 759
Georgetown University Graduate and Training Programs . 329
Georgia State University ..................................... 880
Georgia State University's Graduate School ............ 878
Gerstner Sloan Kettering Graduate School of Biomedical Sciences ........................................... 434
Graduate School of Biomedical Sciences
St. Jude Children's Research Hospital ................. 814
Great Lakes Bioenergy Research Center .......... 806
Gulf Coast Consortia ............................................ 533
Harvard Division of Medical Sciences .................. 643
Harvard Integrated Life Sciences ......................... 640
Harvard John A. Paulson School of Engineering and Applied Sciences .................................... 644
Harvard T.H. Chan School of Public Health .......... 645
Harvard University Graduate Programs in Biophysics . 642
Harvard/MIT MD-PhD Program ........................... 641
Harvard/MIT Health Sciences & Technology ........... 458
Higher Education Recruitment Consortium- HERC .... 853
Houston Methodist Academic Institute ................. 257
Howard Hughes Medical Institute (HHMI) .......... 516
Howard University Graduate School .................... 777
Icahn School of Medicine at Mount Sinai ............. 358
Idaho College of Osteopathic Medicine ............... 207
Indiana University -- Dept. of Psychological & Brain Sciences, Program in Neuroscience, Cognitive Sciences .................................................. 767
Indiana University Biomedical Sciences
Graduate Programs ............................................ 325
Indiana University Purdue University Indianapolis (IUPUI) ...................... 262
Indiana University, Bloomington ......................... 765
Indiana University, The University Graduate School .. 727
Indiana University-Bloomington ......................... 769
Institute for Biomedical Sciences,
Georgia State University ..................................... 456
Integrated Life Sciences, University of Georgia .... 231
Johns Hopkins University Bloomberg School of Public Health and School of Nursing .......... 312
Johns Hopkins University Krieger School of Arts & Sciences ................................. 320
Johns Hopkins University Program in Cell, Molecular, Developmental Biology, and Biophysics . 322
Johns Hopkins University School of Medicine ........ 314
Johns Hopkins University Whiting School of Engineering .................................................. 316
Kaiser Permanente Bernard J Tyson School of Medicine .................................................. 781
Kansas City University of Medicine and Biosciences ... 222
Kansas College of Osteopathic Medicine ............. 216
Keck Graduate Institute ...................................... 568
Keck School of Medicine of the University of Southern California ........................................... 444
Lawrence Berkeley National Laboratory ................ 376
Lawrence Livermore National Laboratory ............ 876
Lehigh University ............................................. 276
Louisiana State University Health Sciences Center .... 447
LSU Department of Chemistry ............................ 287
Marian University - College of Osteopathic Medicine .... 201
Marshall University ............................................ 779
Mayo Clinic ...................................................... 468
Medical College of Wisconsin ............................ 240
Medical University of South Carolina .................. 553
Meharry Medical College .................................... 778
Memorial Sloan Kettering Cancer Center
Department of Medical Physics ............................ 575
Michigan State University College of Osteopathic Medicine ........................................... 217
Michigan State University Graduate School .......... 735, 834
Midwestern University ........................................ 215
Midwestern University - Downers Grove, Illinois Campus .................................................. 668
MinorityPostdoc.org of DiverseScholar .................. 868
MIT, Center for Brains, Minds and Machines .......... 457
MIT, Department of Biology ................................ 459
Molecular, Cell, and Developmental Biology at the University of Pittsburgh ......................... 864
Morehouse College Public Health Sciences Institute ... 657
Morehouse School of Medicine ............................ 847,849
Morehouse School of Medicine Physician Assistant Studies Program .................................... 581
National Academies of Sciences, Engineering, and Medicine .................................................. 252
National Alliance for Hispanic Health ................. 477
National Cancer Institute .................................... 502
National Center for Advancing Translational Sciences .................................................. 704
National Institutes of Health, Center for Scientific Review (CSR) ........................................ 505
National Institute of Arthritis and Musculoskeletal and Skin Diseases ................................. 705
National Institute of Dental and Craniofacial Research (NIDCR) ........................................... 706
National Institute of General Medical Sciences ....... 702
National Institute of Mental Health ........................ 707
National Institute of Neurological Disorders and Stroke (NINDS) .......................................... 606
National Institute on Alcohol Abuse and Alcoholism (NIAAA) ............................................ 507
National Institutes of Health ................................ 703
National Institutes of Health, National Institute of Allergy and Infectious Diseases .................... 605
National Institutes of Health, Office of Training and Education ............................................. 701
National Research Mentoring Network .................. 523
National Science Foundation ............................... 224
Neuroscience Graduate Program / Oregon Health & Science University ................................ 247
New York Institute of Technology College of Osteopathic Medicine .................................... 204
Exhibitor Listing

New York University ................................................... 346
New York University Center for Neural Science .......... 349
New York University, Department of Biology .......... 347
New York University, Vilcek Institute of Graduate Biomedical Sciences .......... 348
NIBIB/NIH ................................................................. 607
NIDDK ............................................................... 506
NIH Loan Repayment Programs .................................. 602
NIH Oxford-Cambridge Scholars Program ................... 604
NIH STEP-UP Program ............................................. 803
NIH/National Institute of Environmental Health Sciences ........................................... 504
NIH/NIAID ................................................................. 603
Noorda College of Osteopathic Medicine ................. 274
North Carolina A&T State University .................... 429
North Carolina Central University ......................... 421
North Carolina State University ......................... 423
Northeastern University ........................................... 678
Northwestern Master of Science in Law Program ........ 776
Northwestern University-The Graduate School .... 724, 726
Novartis Institutes for Biomedical Research ........... 879
NYU School of Global Public Health ..................... 871
NYU Tandon School of Engineering ..................... 345
Oakland University William Beaumont School of Medicine ........................................... 758
Ohio University Heritage College of Osteopathic Medicine ........................................... 213
Old Dominion University ........................................... 277
Oregon Health & Science University/Program in Biomedical Sciences ........................................... 243
Pacific Northwest University of Health Sciences ........ 242
Pfizer, Inc. ................................................................. 281
Philadelphia College of Osteopathic Medicine (PCOM) 214
Physician Assistant Education Association .............. 557
Physicians Committee for Responsible Medicine ........ 576
Precise Advanced Technologies and Health Systems for Underserved Populations (PATHS-UP) ............. 535
PRIME-LA UCLA David Geffen School of Medicine .... 280
Purdue University, The Graduate School .................. 725
Regeneron Pharmaceuticals ...................................... 410
Rensselaer Polytechnic Institute ............................... 340
Rice University Office of Graduate and Postdoctoral Studies ........................................... 528
Rocky Vista University ............................................. 212
Rosetta Commons .................................................... 377
Ross University School of Medicine ..................... 680
Roswell Park Comprehensive Cancer Center .......... 674
Rowan University School of Osteopathic Medicine ........ 815
RowanSOM - Graduate School of Biomedical Sciences 817
Rush University Graduate College Chicago ................. 307
Rutgers University - Newark Biomedical & Health Sciences ........................................... 722
Rutgers University-New Brunswick ......................... 720
Saint Louis University ............................................... 749
Salk Institute for Biological Studies ........................................... 577
Sam Houston State University ................................. 202
School of Graduate and Postdoctoral Studies/Rosalind Franklin University ......................... 663
Sigma Xi ................................................................. 480
Society for Developmental Biology ........................... 746
Society of Toxicology ................................................. 744
Stanford University ................................................. 859
Stony Brook University ........................................... 368
Summer Health Professions Education Program (SHPEP) ........................................... 244
SUNY Downstate Health Sciences University .......... 580
Syracuse University .................................................. 578
Texas A&M University ............................................... 873
Texas A&M University, Department of Chemistry .... 866
Texas Tech University Health Sciences Center, Graduate School of Biomedical Sciences .......... 321
The Center for Graduate and Professional Diversity Initiatives (CGPDI) ................................. 770
The George Washington University Institute for Biomedical Sciences ........................................... 547
The Graduate Center, City University of New York .... 279
The Graduate School of the Stowers Institute for Medical Research ........................................... 676
The Graduate School, Princeton University ............... 546, 548
The Jackson Laboratory ............................................. 851
The Leadership Alliance ............................................. 227
The Lundquist Institute ............................................. 559, 658
The National Heart, Lung, and Blood Institute ........... 503
The Ohio State University College of Medicine .......... 833, 835
The Ohio State University Life Sciences Interdisciplinary Graduate Program ............................... 730
The Ohio State University, College of Engineering .... 877
The Ohio State University, College of Veterinary Medicine ........................................... 865
The Pennsylvania State University, Office of Graduate Educational Equity Programs ................. 731, 729
The Rockefeller University ........................................... 428
The Scripps Research Institute ................................... 414
The University of Alabama ......................................... 474
The University of Chicago ........................................... 732
The University of Kansas - Graduate Training in Chemical Biology ........................................... 375
The University of Kansas - Madison & Lila Self Graduate Fellowship ........................................... 780
The University of North Texas Health Science Center at Fort Worth ........................................... 555
Touro University Nevada ........................................... 747
Townson University ................................................... 771
Tufts University, Graduate School of Biomedical Sciences ........................................... 826
Tulane University ...................................................... 566
Tuskegee University ................................................... 775
UAG, School of Medicine ........................................... 854
UAMS Graduate School ............................................ 275
UC Riverside Science Graduate Programs ................... 628
<table>
<thead>
<tr>
<th>University Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>UC San Diego...</td>
<td>621</td>
</tr>
<tr>
<td>UC San Diego Biological Sciences</td>
<td>625</td>
</tr>
<tr>
<td>UC San Diego Biomedical Sciences</td>
<td>629</td>
</tr>
<tr>
<td>UC Santa Barbara</td>
<td>627</td>
</tr>
<tr>
<td>UCLA Graduate Division</td>
<td>620</td>
</tr>
<tr>
<td>UCLA Graduate Programs in Bioscience</td>
<td>622</td>
</tr>
<tr>
<td>UCLA Medical Scientist Training Program (MSTP)</td>
<td>624</td>
</tr>
<tr>
<td>UGA School of Chemical, Materials, and Biomedical Engineering</td>
<td>234</td>
</tr>
<tr>
<td>UMass Chan Medical School</td>
<td>520, 522</td>
</tr>
<tr>
<td>UNC Chapel Hill SOM – PhD &amp; MD-PhD</td>
<td>420</td>
</tr>
<tr>
<td>UNC Gillings School of Global Public Health</td>
<td>425</td>
</tr>
<tr>
<td>Univ of TN Graduate School</td>
<td>863</td>
</tr>
<tr>
<td>University at Buffalo (SUNY) College of Arts and Sciences</td>
<td>413</td>
</tr>
<tr>
<td>University at Buffalo (SUNY) Institute for Strategic Enhancement of Educational Diversity (iSEED)</td>
<td>417</td>
</tr>
<tr>
<td>University of Alabama at Birmingham</td>
<td>512, 510, 514</td>
</tr>
<tr>
<td>University of Arizona College of Medicine Tucson</td>
<td>378</td>
</tr>
<tr>
<td>University of Arizona Graduate College</td>
<td>869</td>
</tr>
<tr>
<td>University of Buffalo (SUNY)</td>
<td>415</td>
</tr>
<tr>
<td>University of California, Berkeley</td>
<td>610</td>
</tr>
<tr>
<td>University of California, Davis</td>
<td>615, 617</td>
</tr>
<tr>
<td>University of California, Irvine – School of Medicine</td>
<td>613</td>
</tr>
<tr>
<td>University of California, Irvine- Graduate Division</td>
<td>611</td>
</tr>
<tr>
<td>University of California, Merced</td>
<td>631</td>
</tr>
<tr>
<td>University of California, San Francisco</td>
<td>614, 612</td>
</tr>
<tr>
<td>University of California, Santa Cruz</td>
<td>616</td>
</tr>
<tr>
<td>University of Cincinnati College of Medicine</td>
<td>341</td>
</tr>
<tr>
<td>University of Colorado Boulder</td>
<td>670</td>
</tr>
<tr>
<td>University of Colorado Cancer Center</td>
<td>664</td>
</tr>
<tr>
<td>University of Colorado Denver I</td>
<td>662</td>
</tr>
<tr>
<td>Anschutz Medical Campus</td>
<td>662</td>
</tr>
<tr>
<td>University of Delaware, Graduate College</td>
<td>752</td>
</tr>
<tr>
<td>University of Florida - College of Pharmacy</td>
<td>379</td>
</tr>
<tr>
<td>University of Florida - Department of Infectious Diseases &amp; Immunology</td>
<td>412</td>
</tr>
<tr>
<td>University of Florida McKnight Brain Institute</td>
<td>359</td>
</tr>
<tr>
<td>University of Florida, College of Liberal Arts and Sciences</td>
<td>365</td>
</tr>
<tr>
<td>University of Florida, College of Medicine, Graduate Program in Biomedical Sciences (PhD Program)</td>
<td>371</td>
</tr>
<tr>
<td>University of Georgia PREP@UGA</td>
<td>232</td>
</tr>
<tr>
<td>University of Georgia, College of Pharmacy</td>
<td>228</td>
</tr>
<tr>
<td>University of Georgia, College of Public Health</td>
<td>235</td>
</tr>
<tr>
<td>University of Georgia, Graduate School</td>
<td>229</td>
</tr>
<tr>
<td>University of Georgia, Neuroscience</td>
<td>233</td>
</tr>
<tr>
<td>University of Houston</td>
<td>666</td>
</tr>
<tr>
<td>University of Illinois - School of Molecular &amp; Cellular Biology</td>
<td>734</td>
</tr>
<tr>
<td>University of Illinois at College of Medicine - Medical Scientist Training Program</td>
<td>569</td>
</tr>
<tr>
<td>University of Illinois Department of Chemistry</td>
<td>820</td>
</tr>
<tr>
<td>University of Illinois Urbana-Champaign</td>
<td>721</td>
</tr>
<tr>
<td>University of Iowa</td>
<td>824</td>
</tr>
<tr>
<td>University of Kentucky, College of Dentistry</td>
<td>768</td>
</tr>
<tr>
<td>University of Kentucky, College of Health Sciences</td>
<td>669</td>
</tr>
<tr>
<td>University of Kentucky, College of Medicine</td>
<td>667</td>
</tr>
<tr>
<td>University of Kentucky, College of Pharmacy</td>
<td>766</td>
</tr>
<tr>
<td>University of Louisville</td>
<td>342</td>
</tr>
<tr>
<td>University of Maryland College of Computer, Mathematical, and Natural Sciences</td>
<td>764</td>
</tr>
<tr>
<td>University of Maryland Medical Scientist Training Program and Graduate Programs</td>
<td>656</td>
</tr>
<tr>
<td>University of Maryland School of Pharmacy</td>
<td>858</td>
</tr>
<tr>
<td>University of Maryland, Baltimore County (UMBC)</td>
<td>654</td>
</tr>
<tr>
<td>University of Miami, Graduate School (MPH, MS, PhD, MSTP)</td>
<td>311, 310</td>
</tr>
<tr>
<td>University of Michigan - Biomedical Engineering</td>
<td>303</td>
</tr>
<tr>
<td>University of Michigan - College of Pharmacy and Program in Chemical Biology</td>
<td>304</td>
</tr>
<tr>
<td>University of Michigan - Human Genetics</td>
<td>848</td>
</tr>
<tr>
<td>University of Michigan - Medical Scientist Training Program &amp; Chemistry PhD</td>
<td>302</td>
</tr>
<tr>
<td>University of Michigan - Rackham Graduate School</td>
<td>305</td>
</tr>
<tr>
<td>University of Michigan - School of Dentistry</td>
<td>301</td>
</tr>
<tr>
<td>University of Michigan, Medical School Office of Graduate &amp; Postdoctoral Studies</td>
<td>300</td>
</tr>
<tr>
<td>University of Minnesota - Graduate School Diversity Office</td>
<td>728</td>
</tr>
<tr>
<td>University of Minnesota Medical Scientist Training Program (MD/PhD)</td>
<td>714</td>
</tr>
<tr>
<td>University of Minnesota, Biomedical Graduate Research Education and Training</td>
<td>716</td>
</tr>
<tr>
<td>University of Missouri Biochemistry &amp; Chemistry</td>
<td>844</td>
</tr>
<tr>
<td>University of Missouri Biological Sciences &amp; NIH PREP Scholars Program</td>
<td>840</td>
</tr>
<tr>
<td>University of Missouri College of Veterinary Medicine</td>
<td>843</td>
</tr>
<tr>
<td>University of Missouri Translational Biosciences PhD Program</td>
<td>845</td>
</tr>
<tr>
<td>University of Missouri, Graduate School &amp; Life Sciences</td>
<td>841</td>
</tr>
<tr>
<td>University of Nebraska - Lincoln, Office of Graduate Studies</td>
<td>823</td>
</tr>
<tr>
<td>University of Nebraska Medical Center</td>
<td>330</td>
</tr>
<tr>
<td>University of New England College of Osteopathic Medicine</td>
<td>205</td>
</tr>
<tr>
<td>University of North Carolina at Chapel Hill &amp; NC State Joint Biomedical Engineering Graduate Program</td>
<td>355</td>
</tr>
<tr>
<td>University of North Carolina at Charlotte Graduate School</td>
<td>427</td>
</tr>
<tr>
<td>University of North Carolina Eshelman School of Pharmacy</td>
<td>426</td>
</tr>
<tr>
<td>University of Notre Dame</td>
<td>856</td>
</tr>
<tr>
<td>University of Oregon - Department of Biology</td>
<td>469</td>
</tr>
<tr>
<td>University of Pennsylvania Department of Chemistry</td>
<td>253</td>
</tr>
</tbody>
</table>

Celebrating 20 Years of Building Community to Innovate in Biomedical and Behavioral Science Research
Exhibitor Listing

University of Pennsylvania, Perelman School of Medicine ................................................. 354
University of Pittsburgh and Carnegie Mellon ........................................................................... 326
University of Pittsburgh School of Medicine ............................................................................... 225
University of Pittsburgh School of Medicine, Office of Graduate Studies .................... 544
Office for Biomedical Graduates ..................................................................................... 544
University of Pittsburgh, Kenneth P. Dietrich Graduate School of Arts and Sciences .......... 258
University of Rochester .............................................................................................................. 563, 565
University of South Carolina .................................................................................................... 554
University of Southern California ............................................................................................. 443
University of Southern California Leonard Davis School of Gerontology .................. 855
University of Southern California, Programs in Biomedical and Biological Sciences .............. 440
University of Texas at Austin College of Pharmacy .............................................................. 362
University of Texas at Dallas ..................................................................................................... 524
University of Texas at El Paso ................................................................................................... 259
University of Texas at El Paso ................................................................................................... 881
University of Texas MD Anderson Cancer Center ............................................................... 531
UTHHealth Graduate School of Biomedical Sciences ......................................................... 531
University of Texas Medical Branch – Graduate School of Biomedical Sciences .............. 530
University of the Incarnate Word School of Osteopathic Medicine .................................. 263
University of Toledo .................................................................................................................. 556
University of Utah Bioscience PhD Programs & MD-PhD ...................................................... 867
University of Virginia School of Medicine Biomedical Sciences Graduate Program ............ 527
University of Washington School of Pharmacy .................................................................... 802
University of Washington, Department of Immunology .................................................... 805
University of Washington, Dept. of Biochemistry ............................................................. 811
University of Washington, Medical Scientist Training Program (MD/PhD) and Genome Sciences Grad Program .............................................................. 804
University of Washington, Molecular & Cellular Biology Program .................................. 800
University of Washington, Molecular Engineering .............................................................. 801
University of Wisconsin - Biological Sciences & SciMed Graduate Research Scholars Program ................. 541
University of Wisconsin - Madison ......................................................................................... 542
University of Wisconsin - Madison, Biochemistry & Nutritional Sciences ...................... 545
University of Wisconsin - Madison, Biophysics and Chemistry .......................................... 543
University of Wisconsin-Madison - Cellular & Molecular Biology, Genetics, and Microbiology ........................................................................................................... 540
US Centers for Disease Control and Prevention-National Center for Immunization and Respiratory Disease .............................................................................................................. 471, 570
USC Neuroscience Graduate Program .................................................................................. 441
USC Population and Public Health Sciences ........................................................................... 445
USC STEM and Computer Science Programs ........................................................................ 380
USF Morsani College of Medicine PhD Program ................................................................ 712
USF PhD Programs in College of Engineering ....................................................................... 710
USUHS - Graduate Programs in Biomedical Sciences and Public Health .......................... 525
UT Health San Antonio Graduate School of Biomedical Sciences ........................................ 317
UT Health San Antonio Office of Postdoctoral Affairs ......................................................... 313
UT Health San Antonio South Texas MSTP ........................................................................... 315
UT Southwestern Medical Center ........................................................................................... 464
UW M3D & Neuroscience ........................................................................................................ 809
UW School of Public Health .................................................................................................. 807
Van Andel Institute Graduate School ...................................................................................... 324
Vanderbilt Graduate School and Fisk-Vanderbilt Bridge Program ............................................. 635
Vanderbilt University ................................................................................................................ 633
Vanderbilt University Biomedical PhD, MD-PhD, and MD Programs .................................. 632
Vanderbilt University, School of Engineering ........................................................................ 630
VCOM - Auburn, Carolinas, Louisiana, Virginia .................................................................... 210
Virginia Commonwealth University ........................................................................................ 416
Virginia Polytechnic Institute and State University .............................................................. 241
Virginia Tech ........................................................................................................................... 328
Virginia Tech ........................................................................................................................... 481
Virginia Tech Carilion School of Medicine ............................................................................. 655
Wake Forest Graduate Programs In Biomedical Sciences ......................................................... 466
Washington State University .................................................................................................... 476
Washington University - McDonnell Genome Institute ....................................................... 857
Washington University in St. Louis, Office of Postdoctoral Affairs .................................... 405
Washington University in St. Louis Division of Biology and Biomedical Sciences .................. 406
Washington University in St. Louis School of Medicine Master of Science Degrees and Summer Research ........................................................................................................... 404
Washington University in St. Louis, MD-PhD Program (MSTP) & MD ..................................... 407
Washington University in St. Louis, Vagelos Division of Biology & Biomedical Sciences ....... 403
Washington University School of Medicine ........................................................................... 411
Water and Life Interface Institute ......................................................................................... 521
Wayne State University ............................................................................................................ 515, 513, 511, 517
Weill Cornell / Rockefeller / Sloan Kettering Tri-Institutional MD-PhD Program .................. 430
Weill Cornell Medicine ............................................................................................................. 335
Weill Cornell Medicine - Population Health Sciences ............................................................ 526
West Virginia School of Osteopathic Medicine .................................................................... 206
West Virginia University .......................................................................................................... 306
Western University of Health Sciences ................................................................................. 223
William Carey University ......................................................................................................... 255
Worcester Polytechnic Institute ............................................................................................... 478
Yale ........................................................................................................................................... 648
Yale MD-PhD Program ............................................................................................................. 647
Yale School of Medicine .......................................................................................................... 653
Yale University .......................................................................................................................... 652
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