

IMSD *View*

INITIATIVE TO MAXIMIZE STUDENT DEVELOPMENT

VOLUME 7 ISSUE 1



Message from the Director Making Informed Choices and Sharing Experiences

Planning for the third annual Northeast Scientific Training Programs Retreat (NEST 2016) is underway. The NEST retreat was established to foster programmatic cross-talk from seldom heard members of the scientific committee – the trainees. Unlike larger scientific meetings, the retreat is a venue for open discussions among trainees. Its goal is to catalyze trainee-endorsed impactful changes in scientific training and program practices that begin at the early undergraduate level through to the advanced postdoctoral level. Attendance at the retreat is intentionally dominated by trainees to ensure that their viewpoints are captured and shared with peers. At NEST 2016 we hope to hear how trainees really make career choices, what currently informs their choices and the limitations they face in making choices.

Andrew G. Campbell, PhD
Associate Professor of Medical Science
Brown IMSD Program Director and Co-PI

Save the Dates!

Training Modules:

- Professionalism & Career Dec. 8-11
- Development: Preparing for the Postdoc Experience
- Defending Your Research Jan. 19-22
- Proposal and Critiquing Those of Others
- The Three Rs: Research Jan. 12, 14, 19, 21
- Data Management, Reproducibility, and Recognition

Guest Seminar:

Professor Tracy Johnson. March 23
(UCLA & HHMI Investigator)



Brown SACNAS chapter members gathered at the 2015 National SACNAS conference
L TO R: Professor Mark Johnson, Olivia Mansion, Oscar Carrillo, Rafael D. González-Cruz, Matthew Anderson, and John Santiago

SACNAS* National Conference 2015

Brown University was well represented at the 2015 National SACNAS conference with a contingent that included IMSD students and faculty, undergraduates, postdocs and program staff. The theme of this year’s conference was “Interdisciplinary Collaboration: The Role of Diversity in STEM Innovation”.

Brown SACNAS chapter president Rafael González-Cruz told the View, “SACNAS was an amazing conference. My poster presentation went very well. At first, I was surprised that my poster judge was a CIA employee. It turned out this judge did a PhD in biomedical engineering before pursuing a government job. Besides the poster session, I loved all the community-building and mentoring activities. There were many keynote speeches given by top-notch STEM scientists and high government officials in which they described their non-linear trajectories through academia and how they overcame adversity at various stages in their lives. Other activities included the opportunity for professors and other professionals to talk to students on what they did to be successful as well as what challenges they faced. Finally, given my status as a graduate student, I found myself talking about Brown and providing advice to undergraduate students from different parts of the country. It was such a great experience.”

*SACNAS stands for *Society for Advancement of Chicanos/Hispanics and Native Americans in Science*.

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Excellence

Congratulations



Ann Catherine Saunders with parents at her post-defense reception

Ann Catherine Saunders, IMSD doctoral trainee in Pathobiology successfully presented herself for examination on the dissertation entitled “The Role of p57kip2 in Placental Development and Disease” on August 24, 2015. Her research was conducted in the lab of her mentor, Professor James Padbury.

Fellowships, Awards & Achievements

Maya Almaraz, IMSD doctoral candidate in Ecology and Evolutionary Biology, presented her research on “Dinitrogen emissions from agricultural soils increase over the growing season” at the 100th Annual Meeting of the Ecological Society of America held in Baltimore, Maryland in August.

Hawasatu Dumbuya, IMSD doctoral candidate in Molecular Pharmacology and Physiology, participated in two conferences in September. At the 2015 Conference of Ford Fellows held at the National Academy of Sciences in Washington, DC, Hawa presented a poster entitled “UV light phototransduction is a reactive oxygen species-sensitive signaling cascade”. Hawa also received a travel award to present a podium talk at the 2015 PanAmerican Society for Pigment Cell Research Conference.

Rafael González Cruz, IMSD doctoral candidate in Biomedical Engineering, received a travel award to attend the 2015 National SACNAS conference in National Harbor, MD in October. Rafael presented a poster on “Lamin A and B1 Expressions Are Indicative of Whole-Cell Mechanical Properties”.

Eric James, IMSD doctoral candidate in Neuroscience, was elected as a Neuroscience Scholars Program Fellow by the Society for Neuroscience (SFN) in July/Aug 2015. Eric presented a poster at the 2015 SFN conference in Chicago entitled “Matrix metalloproteinase 9 inhibition counteracts neurodevelopmental abnormalities in a *Xenopus* tadpole model for VPA-induced neurodevelopmental disorders”. He also gave a science talk at the SPINES Neuroscience Symposium in October and participated in a panel discussion on building sustainable networks.

Marcia Pescador Jimenez, IMSD trainee in Epidemiology, has been nominated to attend the [CDC Millennial Health Leaders’ Summit](#), which will take place March 31 - April 1 at the Centers for Disease Control and Prevention in Atlanta, GA. The Summit event brings together a cadre of medical, public health, and public policy graduate students, nominated by their universities for their outstanding achievements and promise as future leaders in addressing health disparities across the nation.

Marcia Pescador Jimenez was also recently selected by Brown University’s Population Studies and Training Center as a [2015 PSTC Graduate Fellow](#). She was awarded a [3rd place prize](#) in a student paper competition at the S4 Institute for the Spatial Structures in the Social Sciences at Brown this past Spring.

Rosa Martinez Garcia, IMSD doctoral candidate in Molecular Biology, Cell Biology and Biochemistry, presented a poster at the 2015 Society for Neuroscience Annual Meeting, in Chicago, on “Characterizing the effects of Tsc1 mutations on thalamic circuit function”.

Hilary Nicholson, IMSD doctoral candidate in Molecular Pharmacology and Physiology, attended the Society for Neuroscience Annual Meeting in Chicago in October and presented an oral nanosymposium on her research entitled, “A Potential Neuroprotective Function for the Sigma-2 Receptor”. A feature article on the research of Hilary and her mentor, Professor Wayne Bowen, can be viewed at: <https://news.brown.edu/articles/2015/11/sigma2>

Earlier in the year Hilary received a travel award to attend the Future Fellows Research Conference at St. Jude Children’s Research Hospital and presented her research with pediatric neuroblastoma.

Eulalia Karina Santamaria, IMSD trainee in Behavioral and Social Health Sciences, was awarded a T32 Predoctoral Fellowship and an R25 Training Fellowship under Dr. Timothy Flanigan and Dr. Amy Nunn to carry out her research project on “Understanding HIV/ AIDS and STI risk factors among Latinos in Providence”.

Trainee & Program Publications:

Wood SA, **Almaraz M**, Bradford MA, McGuire KL, Naeem S, Neill C, Palm CA, Tully KL, Zhou J. Farm management, not soil microbial diversity, controls nutrient loss from smallholder tropical agriculture. *Front Microbiol.* 2015 Mar 4;6:90. doi: 10.3389/fmicb.2015.00090. eCollection 2015. PubMed PMID: 25926815; PubMed Central PMCID: PMC4396515.

Tully KL, Wood SA, **Almaraz M**, Neill C, Palm CA. The effect of mineral and organic nutrient input on yields and nitrogen balances in western Kenya. *Agriculture Ecosystems and Environment* (Epub September 15, 2015).

Nicholson H, Mesangeau C, McCurdy CR, Bowen WD. Sigma-2 receptors play a role in cellular metabolism: Stimulation of glycolytic hallmarks by CM764 in human SK-N-SH neuroblastoma. *J Pharmacol Exp Ther.* 2015 Nov 16. pii: jpet.115.228387. [Epub ahead of print] PubMed PMID: 26574517.

Community

Climate Survey Prize Winner!

Congratulations to **Dan DuBreuil**, 4th year graduate student in the Neuroscience PhD program, who participated in the 2015 BioMed/Public Health Training Climate Survey and was randomly selected to win this year's incentive prize, a FitBit Charge HR. The climate survey is conducted annually by the Brown IMSD program's external consultant, Meridian Solutions, Inc., and provides graduate programs with valuable feedback and helpful recommendations for actions that can be taken to continually improve the training environment for our graduate students in BioMed and Public Health. Many thanks to Dan and to everyone who participated in the survey!

Dumbuya on "Giving Back and Raising the Bar"

Hawasatu Dumbuya, IMSD doctoral candidate in the Molecular Pharmacology and Physiology Program, is continuing to work with the Science Career Program (SCP) that she started at her alma mater Medford High School. SCP is a volunteer-based mentoring program that is designed to encourage English language learner (ELL) high school students' pursuits of a higher education and offer a view of various STEM careers. In a piece she wrote for the Brown International Writers' Blog, Hawa discusses her experiences as a foreign minority individual and her motivations for "[Giving Back and Raising the Bar](http://blogs.brown.edu/international-writers/2015/10/11/giving-back-and-raising-the-bar/)". The essay can be viewed at: <http://blogs.brown.edu/international-writers/2015/10/11/giving-back-and-raising-the-bar/>

LabTV Profiles IMSD Students

The NIH recently launched an exciting new project to expose the public to science and to inspire young people to pursue careers in biomedical research. [LabTV](http://www.labtv.com/) features brief, documentary style videos of young scientists talking about their research and their personal journeys. As stated on the project's home page, "LabTV is about more than science. It's about the people behind the science. The young medical researchers, the role models, the curious minds who took the road less traveled and are changing the future through medical research." In May, film-makers visited Brown University and conducted video interviews with several IMSD graduate students. In the following profiles which have already been seen by more than 35,000 viewers, students talk about their background and motivations for becoming scientists, the challenges and rewards of working in a lab, and what they hope to accomplish in the future. Video profiles of these students can be viewed at the links below.

Heather Bennett

Curious About Sleeping Habits

<https://www.labtv.com/Home/Profile?researcherid=1549>

Eric James

Curious About How the Brain Grows and Develops

<http://www.labtv.com/Home/Profile?researcherid=1882>

Vérida Léandre

Curious About the Processes That Store Fat in the Body

<https://www.labtv.com/Home/Profile?researcherid=1324>

Ann Catherine Saunders

Curious About Embryo and Fetal Development

<https://www.labtv.com/Home/Profile?researcherid=1810>

Communicating Science: A Conversation with NPR's Joe Palca

During a recent visit to Brown University, [Joe Palca](http://www.npr.org/people/joe-palca), science correspondent at National Public Radio (NPR), engaged in a breakfast discussion with graduate and postdoctoral trainees in BioMed and Public Health on "Communicating Science for Fun and Profit". Palca shared his perspective as a journalist who has worked in TV, print and radio, and offered advice for young scientists who are interested in outreach and articulating the importance of their research to non-scientists. He also talked about his current project "Joe's Big Idea" which explores the minds and motivations of scientists and inventors. Due to the high demand for content, Palca is recruiting "Friends of Joe's Big Idea" to help spread the word about exciting research. He invited students to contact him if they are interested in participating in the project. The conversation stimulated ideas for how we can continue to improve the way we communicate about science, including a potential new IMSD training module on this topic. Stay tuned for further details!



NPR science correspondent Joe Palca (standing) with BioMed trainees at October breakfast

This event was co-sponsored by the Office of Graduate and Postdoctoral Studies and the IMSD Program.

Collaboration

Funding and Training Opportunities

Predoctoral Individual Fellowships

[Ruth L. Kirschstein National Research Service Awards for Individual Predoctoral Fellowships \(F31\)](#) The NIH F31 Individual National Service Awards (NRSA) provide support for promising doctoral candidates who will be performing dissertation research and training in scientific health-related fields relevant to the missions of the participating NIH Institutes and Centers. Individual opportunities may have different deadlines, please check the sites: http://grants.nih.gov/training/F_files_nrsa.htm

American Lung Association – Lung Health Dissertation Grant

The objective of the Lung Health Research Dissertation Grant is to support pre-doctoral dissertation research in the various disciplines of social science examining risk factors affecting lung health. Application Deadline: December 16, 2015. Further Information can be found at: <http://www.lung.org/our-initiatives/research/awards-and-grant-funding/opportunities.html>

[American Heart Association Pre-doctoral Fellowships](#) provide support for research broadly related to cardiovascular function and disease and stroke, or to related clinical, basic science, bioengineering or biotechnology, and public health problems, including multidisciplinary efforts. Application deadlines vary depending on region. See site for details: http://my.americanheart.org/professional/Research/FundingOpportunities/ForScientists/Summer-2013---Predoctoral-Fellowship_UCM_443316_Article.jsp#.VkylBUZ5_KE

[The Institute for Broadening Participation \(IBP\)](#) offers paid summer research, graduate fellowships, and graduate programs in a wide variety of STEM disciplines. Information about funding opportunities for graduate students can be found at: <http://www.pathwaystoscience.org/grad.aspx>

[Keystone Symposia Diversity Life Sciences Programs \(DLSP\)](#) provides diverse early career scientists, postdoctoral researchers, and graduate students with the opportunity to receive travel awards to Keystone Symposia meetings (ABRCMS Scholars program; Early Career Investigator Travel Awards (ECITA); Underrepresented Trainee Scholarships; and the Fellows Program). Participants in the Fellows Program receive mentoring from Scientific Advisory Board (SAB) members and other professional development training in cellular and molecular biology. For more information on all DLSP programs, please go to: <http://www.keystonesymposia.org/diversity>

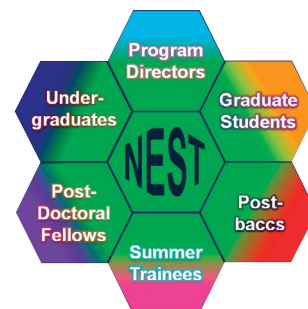
Conference Travel Awards:

[The Biomedical Science Careers Program \(BSCP\)'s 13th biennial BIOMEDICAL SCIENCE CAREERS STUDENT CONFERENCE](#) for postdocs, graduate, and undergraduate students will be held on Saturday, April 2, 2016 at The Westin Copley Place in Boston, Massachusetts from 7:30 AM to 6:00 PM, with a dinner (pre-registration required), keynote address and interactive workshops the prior evening. Further information and application forms can be found at: <http://www.bscp.org/EventsDisplay.asp?ID=316>

Save the Dates!

March 4-6, 2016

The third annual Northeast Scientific Training Program Retreat (NEST) will be held on March 4-6, 2016 at the Marine Biological Laboratory in Woods Hole, Massachusetts. Program information and application form will be posted at: <http://biomed.brown.edu/imsd/nest/>



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PARTNER INSTITUTIONS

St. John's University, New York, NY

York College of the City University of New York

North Carolina A&T State University

The College of Mount Saint Vincent



Brown University's Initiative to Maximize Student Development (IMSD) is a predoctoral research training initiative that aspires to significantly increase the number of PhDs from groups underrepresented in biomedical and behavioral research. The

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