

IMSD View

INITIATIVE TO MAXIMIZE STUDENT DEVELOPMENT

VOLUME 4 ISSUE 2



BROWN

MESSAGE FROM THE DIRECTOR

The Value of Minority Programs & Why They Matter

Evidence continues to accumulate that programs, designed to address the low numbers of trainees from under-represented groups in the STEM fields, do make a difference [Estrada et al, 2011]. Race and ethnic status will always matter - as under-represented racial and ethnic groups (though the groups may change as U.S. demographics change) will always exist. The benefits of programs serving the current under-represented groups in STEM to the larger scientific community, however continue to be under-appreciated. The likely cause is that they go unrecognized as platforms for broader societal change and progress. Minority program practices benefit non-minority STEM students because they serve as emulatable models that can benefit all students. While some program practices that increase student self-efficacy and academic achievements are unique to URMs, others are also applicable to non-URM students. If, for example, novel practices that validate the scientific identity of URM students increase publication output, it is likely that validating the scientific identity of non-URM students will yield the same. Minority programs serve the dual purpose of increasing minority participation in STEM fields and as the 'proving grounds' for good practices that, when appropriately applied, benefit all.

Andrew G. Campbell, PhD
Associate Professor of Medical Science
IMSD PI & Program Director

SAVE THE DATES!

Training Modules:

Essential Laboratory Calculations . . . Mar 25-27

Beyond the Hypothesis . . . Feb 20-Apr 3

Seminars:

Justina McEvoy (St. Jude Children's Research Hospital) . . . Mar 8

Lola Brown (UMBC IMSD Speaker Exchange Program) . . . May 10



PHOTO CREDIT: Teresa Ramirez

Brown SACNAS chapter members proudly display certificates of membership at their holiday gathering. L to R: Ayed Allawzi (National Liaison), Teresa Ramirez (President), Dean Oludurotimi Adetunji (Chapter Advisor), Marcela Soruco (Vice President), Kristin Beale (Treasurer).

SACNAS BROWN CHAPTER HAS ARRIVED!

SACNAS, the Society for Advancement of Chicanos and Native Americans in Science, is now at Brown University. SACNAS@Brown wants to support scientists to attain advanced degrees and careers and positions of leadership in science! Members will have an opportunity to take part in career development, community outreach and mentoring, as well as apply to present their research at the national SACNAS conference in San Antonio, Texas in October 2013. **SACNAS is open to ALL undergraduates, graduate students, post-docs, and faculty of ALL cultural affiliations.**

Last semester we organized a resume workshop for undergraduate students and a resume/CV workshop for graduate/post docs and we had a good turnout. This Spring we will host similar events, like a workshop to help students prepare for oral/poster presentations. We have invited guest speakers who will be coming to Brown to give seminars and meet with the IMSD/SACNAS members as well as other students and faculty members. Spring speakers include Dr. JoAnn Trejo, Professor of Pharmacology from UC San Diego, Dr. Sharon Milgram, Director of NIH Offices of Intramural training and education and Dr. Adán Colón-Carmona, Associate Professor of Biology, Cell Biology, Genetics and Molecular Biology of Plants from the University of Massachusetts, Boston. Please stay tuned for future events. -Teresa Ramirez

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CONGRATULATIONS

Leon Toussaint, Brown Ph.D. in Pathobiology (2012) and former IMSD senior scholar has obtained a new position as Postdoctoral Associate at Cornell University College of Veterinary Medicine. He is currently working in the lab of Dr. Margaret Bynoe in the Department of Microbiology & Immunology.

Sam McNeal transitioned to a new Postdoctoral Fellow position in the Department of Surgery at University of Pennsylvania School of Medicine effective January 2013. Sam, a former IMSD trainee and mentee of Dr. Alfred Ayala at Rhode Island Hospital, earned his Ph.D. in Pathobiology from Brown in 2012.

Kirk Haltaufderhyde, IMSD graduate trainee in Molecular Pharmacology, and Physiology, was highlighted in CUNY's "2012 Science All Star Team" ad campaign along with Dr. Gerald McNeil, his former undergraduate Biology Professor and mentor at York College CUNY. A related article can be found on the York CUNY website at: <http://www.york.cuny.edu/news/cunys-2012-science-all-star-team>.

Kristin Beale, Ph.D. candidate in Molecular Biology, Cell Biology and Biochemistry, was the recipient of the H.F. Linsken's Young Scientist Presentation Award: Best Oral Presentation for her research presentation at the XXII International Congress on Sexual Plant Reproduction Meeting in Melbourne, Australia, 2012.

George Aninwene II, former IMSD trainee in Brown's BioMedical Engineering program has transferred to Northeastern University where he is continuing his doctoral research in the Webster Nanomedicine Lab. George was recently a recipient of the Society for Biomaterials' Student Travel Achievement Recognition (STAR) Award, Honorable Mention. George will present his research on "Investigating Lubricin as a Means to Prevent Surface Biofouling and Post-operative Infection Following Surgery" at the 2013 Society for Biomaterials' Conference in Boston.

Maya Almaraz, IMSD trainee in Ecology and Evolutionary Biology received Honorable Mention for her NSF Graduate Research Fellowship Proposal application entitled "The Effect of Soils on the Fate of Nitrogen Fertilizer in Sub-Saharan Africa."

Diana Lizarazo, IMSD graduate student in Molecular Pharmacology and Physiology was a featured seminar speaker for the Rhode Island College Biology Symposia Series in October 2012. Diana presented her research on "Effects of Ethanol on Aspartyl-Asparaginyl-Beta-Hydroxylase (AAH) Expression and Activation of Notch in the Liver."

TRAINEE PUBLICATIONS

Congratulations to IMSD students **Heather Bennett**, **Michael Lopez**, and **Anika Toorie** on their recent and forthcoming publications:

Sriram U, Varghese L, **Bennett HL**, Jog NR, Shivers DK, Ning Y, Behrens EM, Caricchio R, Gallucci S. Myeloid dendritic cells from B6.NZM Sle1/Sle2/Sle3 lupus-prone mice express an IFN signature that precedes disease onset. *Immunol.* 2012 Jul 1;189(1):80-91. doi: 10.4049/jimmunol.1101686. Epub 2012 Jun 1. PMID: PMC3381850 [Available on 2013/7/1].

Winston SE, Montague BT, **Lopez MJ**, Delong A, Lemarchand C, Bedoya A, Gillani FS, Beckwith CG. Evaluation of longitudinal clinical outcomes and adherence to care among HIV-infected refugees. *J Int Assoc Physicians AIDS Care (Chic)*. 2012 Sep 28. [Epub ahead of print] PubMed PMID: 23024042.

Cyr NE, **Toorie AM**, Steger JS, Sochat MM, Hyner S, Perello M, Stuart R, Nillni EA. Mechanism by which orexigen Neuropeptide Y (NPYP) regulates anorexigenic α -melanocyte-stimulating hormone (α -MSH) and thyrotropin-releasing hormone (TRH). *Am J Physiol Endocrinol Metab* ajpendo.00448.2012; published ahead of print January 15, 2013, doi:10.1152/ajpendo.00448.2012 (Epub ahead of print). PMID: 22321476.

ABRCMS 2012



IMSD senior scholar Adeola Adebayo (Brown Pathobiology) at her ABRCMS poster presentation with friend Joanna Hays (Princeton).



Brown IMSD PIs Andrew G. Campbell and Elizabeth O. Harrington at ABRCMS 2012 exhibitor fair.



NC A&T undergraduate Avery Williamson talks with Jabbar Bennett, Ph.D., Associate Dean for Diversity and Director of the Office of Diversity and Multicultural Affairs, Brown University, Division of Biology and Medicine.

STRATEGIES PROPOSED TO INCREASE THE DIVERSITY OF THE NIH-FUNDED WORKFORCE

In response to the June 2012 report from the NIH Advisory Committee Working Group on Diversity in the Biomedical Workforce, an Implementation Team was formed. In January 2013, Lawrence Tabak, D.D.S., Ph.D, NIH Principal Deputy Director presented the strategies that the NIH Implementation Team had developed to respond to the four focus areas recommended by the Working Group, i) pipeline, ii) mentoring, iii) infrastructure, and iv) peer review. The recommendations are as follows:

- The NIH *Building Infrastructure Leading to Diversity (BUILD)* Program will provide 4 years of mentorship (2y in undergraduate studies and 2y in graduate studies) to students, tuition scholarships for 2y in undergraduate studies, and possible loan repayment during graduate training. In addition, the BUILD program will provide salary and resource support for faculty mentors of these students, resources for enhancing mentorship within the institutions, and financial support to the institution to develop initiatives to enhance diversity within the Ph.D. training.

- The *National Research Mentoring Network (NRMN)* will develop standards for mentorship, train mentors, and connect students, postdoctoral fellows and faculty to experienced mentors.
- A National Coordinating and Evaluation Center will be developed with the goal of providing optimal coordination among the BUILD consortium and NRMN, and will serve as a database and provide data analysis to enhance networking opportunities.
- The peer review process will be reassessed to ensure that all applications receive a fair and unbiased review.

More information regarding these recommendations may be found at: https://www.aamc.org/download/326948/data/diversityinthenihfundedworkforceaamcwebinar_tabak.pdf

Elizabeth O. Harrington, Ph.D.
Associate Dean of Office of Graduate & Postdoctoral Studies
Associate Professor of Medicine
IMSD Co-PI

SHARING GOOD PRACTICES



Kirk Haultaufderhyde (center) and fellow graduate students work on scientific presentation skills during a recent training module

In the Spring 2013 issue of [CBE-Life Sciences Education](#) (Volume 12 p1- 11) the Brown IMSD program describes a number of practices put in place to address diversity in our graduate ranks. This manuscript describes partnerships built with minority and other under-served institutions, training practices designed to maximize the success of students transitioning from the undergraduate years to the graduate years and inter-institutional activities that support this work. The practices outlined as good practices are not unique to addressing the needs of URM students. They are broadly useful for non-URMs students and therefore of interest to all interested in STEM persistence and trainee success at the graduate level.

Andrew G. Campbell & Nancy L. Thompson



PHOTO CREDIT: Teresa Ramirez



Brown IMSD participants past and present gathered for a weekend of mentoring and networking at the 2012 Leadership Alliance National Symposium: L to R: Tania Nevers, Angel Byrd, Courtnei Newsome, Teresa Ramirez, Diana Lizarazo, Nick Everage, Noelle Hutchins

ABRCMS AND SACNAS 2012

The largest gatherings of under-represented students in the sciences take place at the national ABRCMS (<http://www.abrcms.org/index.html>) and SACNAS (<http://sacnas.org/>) conferences where students showcase their talents and start the launch of their scientific careers. These meetings are the venues to identify promising students who possess the foundational skills and desires to become the faculty needed to diversify the academy and maintain our national scientific labor force. This year, ABRCMS was held in San Jose, CA and SACNAS in Seattle, WA and both meetings reported a record number of registrants.

-AGC



Collaboration

FUNDING AND TRAINING OPPORTUNITIES

F31 Predoctoral Individual National Research Service Award (NRSA)

Annual Diversity Deadlines: Apr. 13, Aug. 13, Dec. 13

AIDS-related applications: May 7, Sept. 7, Jan. 7

Ruth L. Kirschstein National Research Service Awards for Individual Predoctoral Fellowships (F31) 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

Dissertation Support

R36 Dissertation Support

Standard Deadlines: Feb. 16, June 16, Oct. 16

AIDS-related applications: May 7, Sept. 7, Jan. 7

Note-Individual Opportunities may have different deadlines, please check the sites.

Conference Travel Awards:

ASCB MAC, FASEB MARC, Keystone Symposia

The Federation of American Societies for Experimental Biology (FASEB) provides information on their web site about science training and education awards made available through FASEB's member societies for students, trainees and science mentors. A complete list of upcoming eligible national meetings for travel awards can be found at:

<http://www.faseb.org/marc/home.aspx>

| Eligible National Meetings | Mtg. Location | Mtg. Dates | Adv. Reg. Deadlines | MARC Deadlines |
|--|----------------|-------------|---------------------|----------------|
| 245th ACS National Meeting & Exposition | New Orleans LA | 4/7 – 4/11 | 2/18 | 3/1/13 |
| Society for Developmental Biology 2013 Northeast Regional Meeting | Woods Hole MA | 4/19 – 4/21 | | 3/1/13 |
| Experimental Biology 2013 | Boston MA | 4/20 – 4/24 | 2/22 | 3/8/13 |
| IMMUNOLOGY 2013™: Centennial Annual Meeting of The American Association of Immunologists*** | Honolulu HI | 5/3 – 5/7 | 3/18 | 1/9/13 |
| ASM 2013: American Society for Microbiology 113th General Meeting (Restricted; see app form) | Denver CO | 5/18 – 5/21 | 4/1 | 3/22/13 |
| Genetics Society of America: 19th International C. elegans Meeting | Los Angeles CA | 6/26 – 6/30 | 5/22 | 5/7/13 |
| 27th Annual Symposium of The Protein Society | Boston MA | 7/20 – 7/24 | 5/4 | 5/31/13 |
| Biomedical Engineering Society 2013 Annual Meeting | Seattle WA | 9/25 – 9/28 | 9/1 | 7/5/13 |

*** Meetings identified with triple asterisks indicate that the travel awards are for applicants who will be giving a poster or platform presentation at the meeting. In addition, ALL applicants must be active members of the FASEB Society sponsoring the meeting.

Keystone Symposia

Thinking of attending a Keystone conference and looking for travel funds? Travel awards of up to \$1,200 are available, check out their Scholarship Page for more information!

The Institute for Broadening Participation is dedicated to building partnerships to support diversity in science. Graduate training programs funded by NSF and NASA offer a variety of internships, fellowships, and scholarships nationwide in a wide range of STEM and related disciplines.

www.pathwaystoscience.org.

SACNAS

The [2013 SACNAS National Conference](http://www.sacnas.org) will take place in San Antonio, Texas from October 3–6. The spring on-line abstract submission and travel scholarship application systems will open on March 4, 2013. Application deadline is Wednesday April 3, 2013 at 5:00 PM PST. Further information can be found at: <http://sacnas.org/events/national-conf/travel-scholarships>.

PROGRAM STAFF:

Andrew G. Campbell, PhD
Program Director, Associate Professor
of Medical Science, Bio Med Molecular
Microbiology & Immunology

Elizabeth O. Harrington, PhD
Co-Program Director, Associate Dean
for Graduate and Postdoctoral Studies
Associate Professor of Medicine
Division of Biology and Medicine

Karen Ball – Program Coordinator

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 program is funded by a five-year continuation grant (2 R25 GM083270-05) by the National Institute of General Medical Sciences, National Institutes of Health (NIGMS/NIH).

FOR FURTHER INFORMATION, CONTACT:

IMSD Program
Brown University
Box G-B495
Providence, RI 02912
Phone: 401-863-3777
Email: IMSD@brown.edu