Welcome

Thank you for tuning in to the third edition of our UNC IMSD newsletter, *The Mosaic*!

The new year brings out new energy and more excitement to report many good things that happened last fall! Our goal is to continue highlighting the achievements of IMSD and PREP students in our community. As we have done in the previous issues, we have compiled a list of these successes to the best of our abilities, with the help of faculty and students. That being said, we still need your help in amassing information so we can showcase what our graduate students have done!

This past fall semester, many of our IMSD students excelled in both academic and community work. In this issue, we will highlight the awardees of the HHMI Gilliam fellowship, travel awards, and pre-doctoral training fellowships. We also want to emphasize the importance of scientific communication by listing many of you who attended, gave a talk, or presented a poster at local, national, and international conferences. In addition, you will see the many publications that our IMSD students have published or co-authored in the last half of 2018 towards the end of this issue!

As if our students are not busy enough in the lab, many participate in extracurricular activities like taking in leadership roles in diverse UNC groups. Others facilitate hands-on STEM mentoring through outreach events at UNC and in Research Triangle Park. Last but certainly not the least, our students will have the opportunity to participate in outreach opportunities with Shaw University through the "BEST BETs" UNC/Shaw partnership. For more information, reach out to us or to Bekah Layton!

It is our pleasure to continue this forum, and we are looking forward to what spring 2019 will bring!

Warm regards,

IMSD Newsletter Team

The annual IMSD holiday party was held on December 12, 2018 at the UNC Kenan-Flagler Business School.
Limas and Agajanian are HHMI Gilliam Fellows

Juanita Limas (Cook Lab) and Megan Agajanian (Major Lab) were selected as 2018-2019 Gilliam Fellows by the Howard Hughes Medical Institute. This prestigious fellowship recognizes both the graduate student committed to a career in academia, and their respective mentor dedicated to the students’ scientific and leadership training. Ultimately, the fellowship promotes the advancement of science through research and science education, in addition to increasing diversity in the scientific community. Congratulations Juanita and Megan!

UNC IMDS Students Attend National Conferences

Adelaide Tovar (Kelada Lab) and Brea Hampton (Heise and Ferris Labs) received travel awards for the 32nd International Mammalian Genome Conference in Puerto Rico this past November. Adelaide presented her poster on “Murine strain differences in hallmark responses to the air pollutant ozone” and Brea presented her work on how “Methyl-CpG binding domain protein 1 polymorphisms impact immune homeostatic levels of IgG1.”

In June, Kia Perez-Vale (Peifer Lab) attended the Gordon Research Seminar and Gordon Research Conference on Cell Polarity Signaling held jointly in West Dover, VT. She presented her work at the meetings detailing how “Rap1 acts via multiple mechanisms to position Canoe/Afadin and adherens junctions and mediate apical-basal polarity establishment.”

Eva Vitucci (McCullough Lab) presented a poster titled, “Piecing Together the Puzzle: Identifying the Role of Oxidative Stress and the Alveolar Epithelium Play in Air Pollution Induced Cardiovascular Disease” at the North Carolina Genetics and Environmental Mutagenesis Society (GEMS) meeting last fall. She received an award for presenting her work.

Yael Escobar (Jaspers Lab) was awarded best poster among the graduate student researchers at the North Carolina Society of Toxicology meeting. She also recently received a diversity supplement from NHLBI to support her ongoing studies of how the base components of e-liquids used for vaping (propylene glycol and vegetable glycerin) impact innate immunity.

Jean Marie Mwiza (Bergmeier and Wolberg Labs) delivered a talk titled, “Determining the role of platelets in the pathogenesis of venous thrombosis (VT)” at the 17th Midwest Platelet Conference.

Karel Alcedo (Snider Lab) received the Maren Fund to attend the AASLD Liver Meeting in San Francisco, CA in November, where she presented her work on “Ecto-5’-nucleotidase (CD73) mediates hepatocyte sensitivity to alcohol and alcoholic liver injury in male mice.”
Urbina off to Marine Biological Laboratories

Fabio Urbina (Gupton Lab) was accepted into the Marine Biological Laboratory (MBL) Physiology Course, which is entering the 125th year of being offered. During the course, students (or even faculty) perform rotations and hear lectures using cutting-edge molecular, computational, biophysical tools to tackle research questions. Fabio received a fellowship from MBL to attend this long-running program.

2018 IMSD Research Day

The annual IMSD Research Symposium partnered with the Chancellor’s Science Scholars Program to present the UNC 2018 Diversity in STEM Conference that was held on November 8, 2018 at the George Watts Hill UNC Alumni Center. Dr. Juan Gilbert, the Banks Preeminence Endowed Professor and Department Chair of Engineering at the University of Florida gave the opening keynote. In the afternoon, attendees heard from keynote speaker, Dr. Jabbar Bennett, the Associate Provost and Chief Diversity Officer, and Associate Professor of Medicine at Northwestern University. Many IMSD students participated in a poster session and panel discussion on diversifying the STEM pathway. Congratulations to Agnes Ezekwesili, Selena Romero and Reggie Edwards (Pictured below with Dr. Jessica Harrell) on their poster awards.

IMSD Alumni Corner

Dr. Tikvah Hayes, an IMSD alumni, visited UNC and was the guest for the IMSD alumni lunch that was held on November 5, 2018. Dr. Hayes is a David M. Livingston MD Fellow at Dana-Farber Cancer Institute. Her focus is on understanding the mechanisms of resistance to cancer therapy, especially in small cell lung cancer.

IMSD welcomes 25 new graduate students!

Among the 25 new students in the 2018 IMSD cohort, 19 participated in the bootcamp week that was held early in August 2018 (shown in pictures). Many of the planned activities involved getting to know each other and current IMSD students.
Welcome to the PREP 2018 Cohort!

Publications


Roles for the IKK-Related Kinases Tbk1 and IkKε in Cancer. Durand JK, Zhang Q, Baldwin AS. Cells. 2018 Sep 15. Review. PMID: 30223576


Cyclic Diguanylate Regulates Virulence Factor Genes via Multiple Riboswitches in Clostridium difficile. McKee RW, Harvest CK, Tamayo R. mSphere. 2018 Oct 24. PMID: 30355665

Prenatal arsenic exposure and dietary folate and methylcobalamin supplementation alter the metabolic phenotype of C57BL/6J mice in a sex-specific manner. Huang MC, Douillet C, Dover EN, Styblo M. Arch Toxicol. 2018 Jun. PMID: 29721587


Modulating apical-basal polarity by building and deconstructing a Yurt. Perez-Velez KA, Peifer M. J Cell Biol. 2018 Nov 5. PMID: 30361467


Don’t miss Nicole Fleming’s Public Dissertation Defense

Feb 4 2019
1:00 PM
G100 Bondurant Hall

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Do you like creative writing? Do you like taking photos during events? Do you like unleashing your journalist persona?

If so, come join us here at IMSD Newsletter! Contact Kaye or Alexia for more information.

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Editors: Karel Alcedo and Alexia Perryman; Newsletter Advisor: Jean Cook