

UGSP Newsletter

Winter 2016

Assembled by:

UGSP Newsletter Committee - Kevin McPherson and Hira Shabbir

New Scholars Announced for the 2016-2017!

Anila Afzal

Senior at the University of Maryland, Baltimore County
Major: Biology and Psychology

Alejandro Anaya

Senior at the University of California, Santa Cruz
Major: Molecular, Cell, & Developmental Biology

Megan Andres

Senior at the University of North Georgia
Major: Biology

Nia Byrd

Senior at the University of Michigan, Ann Arbor
Major: Biopsychology Cognition Neuroscience

Danielle Duarte

Senior at the University of New Mexico
Major: Biology, Psychology

Brian Ho

Senior at Florida International University
Major: Biology

Nicholas Munyan

Junior at the University of Maryland, College Park
Major: Chemistry

George Mwinnyaa

Senior at Johns Hopkins University
Major: Public Health

Diana Nguyen

Senior at Clemson University
Major: Biochemistry

Luis Perez Valencia

Senior at Connecticut College
Major: Biological Sciences

Duy Phan

Junior at Johns Hopkins University
Major: Neuroscience

Leana Ramos

Senior at St. Thomas University
Major: Biology and Chemistry

Mia Rosenfeld

Senior at the University of North Carolina, Wilmington
Major: Chemistry

David Salas

Senior at California State University, Dominguez Hills
Major: Clinical Laboratory Science

Khalifa Stafford

Senior at Hunter College of CUNY
Major: Psychology with a Neuroscience concentration

Nicholas Verdini

Senior at Emmanuel College
Major: Biology with a Health Sciences concentration

Renewal scholars for 2016-2017

Chase Morgan

Senior at Columbia University
Major: Biochemistry

Beverly Wu

Senior at the University of Maryland, Baltimore County
Major: Biological Sciences

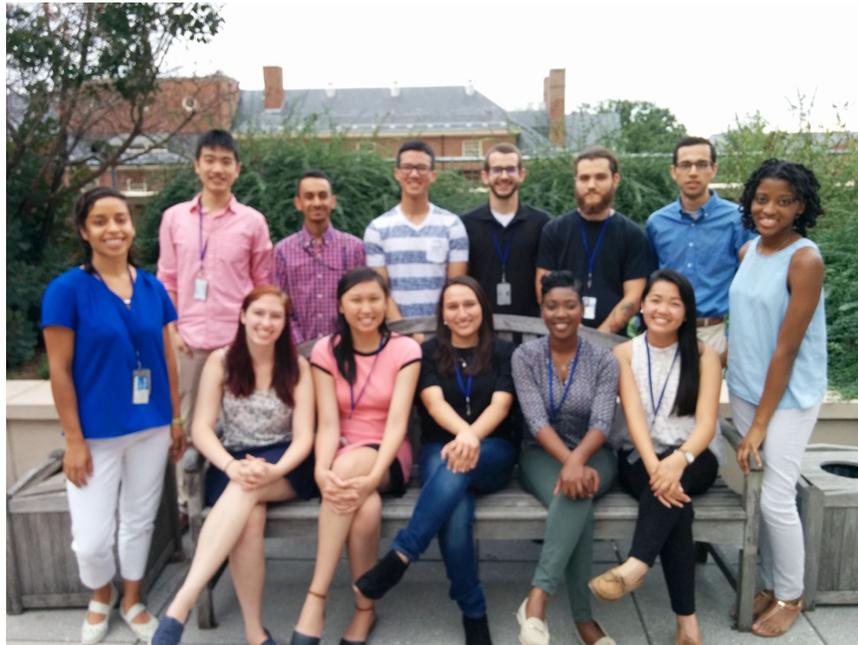
Nancy Ortega

Senior at the University of California, San Francisco
Major: Psychology

Neranjana de Silva

Senior at Columbia University
Major: Biochemistry

NIH UGSP- Summer 2016



The NIH UGSP Summer Internship Program culminates in Summer Poster Day. At Summer Poster Day, scholars share research with each other and the wider NIH community. Above are some of the UGSP Scholars who participated in the UGSP Summer Internship Program. Below is a list of UGSP Scholars who presented their work at Summer Poster Day 2016.

Assanatou Bamogo

Assessment of the functionality and stability of Prefusion RSV F (DSCAV1) glycoprotein variants
University of Central Florida

Preceptors: Dr. Barney Graham, Dr. Azad Kumar, Dr. Syed Moin, Ms. Joan Ngwuta

Emilie Fisher

Contribution of PMT, a toxin exporter, to Staphylococcal pathogenesis
Scripps College (California)

Preceptors: Mr. Joshua McCausland, Dr. Gordon Cheung, Dr. Michael Otto

Patrick Jensen

Material Decomposition in Photon Counting Computed Tomography
University of Chicago (Illinois)

Preceptors: Dr. Amir Pourmorteza, Mr. Tyler Cork, Dr. Manu Lakshmanan, Dr. David Bluemke

Bilal Moiz

Target Sequencing of a Region in Chromosome 6 with High Susceptibility for Familial Lung Cancer
University of Rochester (New York)

Preceptors: Dr. Anthony Musolf, Dr. Joan Bailey-Wilson

Chase Morgan

Characterization of CRISPR/Cas9-mediated IQGAP1 knockout human cell lines
Columbia University (New York)

Preceptors: Dr. Andrew Hedman, Dr. David Sacks

Quang Nguyen

HIV RNA Alternative Splicing: The Effect of CD4 Down-Regulation during Early Acute HIV-1 Infection
Duke University (North Carolina)

Preceptors: Dr. Joseph Casazza, Dr. Richard Koup

Kelly Nguyen

Racial Differences in Response to Ambient Temperature: A Case-Crossover Study of Cardiovascular Events at Labor and Delivery
San Diego State University (California)

Preceptors: Dr. Pauline Mendola, Dr. Sandie Ha

Obadi Obadi

Genome Wide Chromatin Accessibility in 2-Hydroxyglutarate Treated Breast Cancer Cell Line
University of North Georgia (Georgia)
Preceptors: Dr. Wei Tang, Dr. Stefan Ambs, Dr. Prachi Mishra

Nancy Ortega
Expression of Muscarinic Receptors in Oligodendrocytes
University of San Francisco (California)
Preceptors: Dr. R. Douglas Fields, Mr. William Huffman

Zaw Phyo
An Allelic Variant of mTOR Leads to Different Proliferation Pattern in Mouse Embryonic Fibroblasts

University of California, Los Angeles (California)
Preceptors: Dr. Joy Gary, Dr. Snehal Gaikwad, Dr. Patricia Wiley, Dr. Beverly Mock

Veronica Ramirez
Characterization of Physical Activity and Psychological Traits
University of San Diego (California)
Preceptors: Dr. Ehsan Shokri Kojori, Dr. Gene-Jack Wang

Launick Saint-Fort
Developing a multi-locus, multiplex typing scheme for detecting population genetics in cryptosporidium.
Pennsylvania State University - Berks Campus (Pennsylvania)
Preceptors: Dr. Asis Khan, Dr. Michael Grigg

UGSP Scholars Give Back: Fall 2016 Group Volunteer Project with Montgomery County Coalition for the Homeless

This fall, UGSP Scholars convened on the idea of creating a more cohesive community of scholars currently on the main Bethesda campus of the National Institutes of Health. Through the guidance of Director of the UGSP program, Dr. Darryl Murray, the scholars formed the Volunteering Committee under the guidance of Bethany Sauls-Lebewitz.

Bethany, passionate about children and family health and wellbeing, reached out to the Montgomery County Coalition for the Homeless (MCCH), and she was able to set up a volunteer project that involved painting rooms in one of MCCH's houses in Gaithersburg, Maryland on November 19, 2016. MCCH runs the program Coalition Homes, Inc., a program incorporated in 2005 that offers permanent housing to the formerly homeless. MCCH currently owns and operates 96 properties in the Montgomery County area.



After a long day of painting rooms in the MCCH's permanent and supportive housing, (from L to R) UGSP Scholar Bethany Sauls-Lebewitz, Director of UGSP Student Services Virginia Meyer, and UGSP Scholar Kevin McPherson, pose for a group photo -- covered in paint and smiles!

When asked about the volunteer work, Bethany said, "We had a great time working with MCCH and being able to help continue their mission within Montgomery County. As UGSP scholars, most of us understand that these acts of service, large or small, do make a difference in people's lives. It's rewarding to continue our payback, here in DC, by also paying it forward to the local communities in the area." She also added that she is excited to see what UGSP

will do in the future to maintain and expand the acts of service they perform amongst postbac and postdoc payback scholars working on the NIH's main campus or on other NIH campuses.

In addition to the Volunteering Committee, three other committees were formed at a meeting in October amongst payback scholars. They are as follows:

- **The Social Outing Committee**, headed by Zaw Physo - Zaw has also taken on the responsibility of creating the UGSP Peer Mentor program for new scholars who visit during Mentor Match in January.
- **The Newsletter Committee**, headed by Kevin McPherson who is aided by Hira Shabbir
- **The Speaker Committee**, headed by Veronica Ramirez

These committees help form a more cohesive UGSP community and family that can enjoy all the benefits that Bethesda and the National Institutes of Health have to offer.

UGSP Payback Spotlight: Tamira Butler-Likely, PhD

Florida A & M University, B.S. Chemistry/Biochemistry, 2006

Washington University in St. Louis, Ph.D. Biology and Biomedical Sciences, Biochemistry, 2012

Dr. Tamira Butler-Likely began her payback as a postdoc. Her research focuses on investigating the function of novel Hfq-independent small RNAs in *E. coli*. She has served on several career panels and a panel addressing concerns of women in science. In addition, she served on the planning committee for NICHD's Postdoctoral Fellow Retreat and volunteered to be course instructor for NICHD's postbac course, "Becoming an Effective Scientist."



What were some important things you learned through your time at the NIH?

"I learned to take advantage of all of the networking, workshop, and career opportunities. People at the NIH really want you to succeed in whatever career you want to pursue, and they provide several avenues to facilitate your success"

What advice would you give to new scholars joining the NIH community?

"When you first arrive, establish yourself and your project in lab first. Once you have a solid direction on your project, branch out into other interests that you may have. Take advantage of the career development and networking opportunities. Get involved in committees and volunteer. You want to make sure that when you take the next step in your career, your resume is well rounded and you have people who will vouch for you."



UGSP Alumni Spotlight: Momodou Jammeh

University of Wisconsin-Madison, Biochemistry, 2012

Duke University School of Medicine, 2018

During his postbac experience, Momodou Jammeh worked on different projects; radiation induced immunogenic modulation of tumor cells to enhance T cell killing and the role human skin microbiota on the pathogenesis of atopic dermatitis.

In addition to doing research, he did a lot of clinician shadowing. He explains “it was also as devastating as it was humbling to meet cancer patients at their most vulnerable.” He attended OITE seminars on writing personal statements and dominating the interview process which he found them to be useful to get into Duke University School of Medicine.

What advice would you give to new scholars?

“Cultivating a great relationship with your mentors is the most the productive thing you can do because without it, it's hard to get anything done.

Get yourself a small notebook and keep it somewhere easily accessible. Each day, write a word, phrase or sentence referencing something 'useful' you learned that day but didn't know before. The subject matter is inconsequential. if your brain registers something new, it counts. At the end of each week, find a moment, look back at the things you learned and try to ask a novel question within the framework of one of your scientific passions.

You have such an incredible opportunity to learn from your work, your mentors and your peers that little moments of self reflection will help get you through the failures inherent to research and the painstaking process of applying to graduate/medical school. Learn to ask great questions and you would've been more productive than the number of publications you have would indicate.”

UGSP Alumni Spotlight: Michael Torres, Ph.D

Dallas Baptist University, BS in Biology, 2006

University of Texas Southwestern, Ph.D in Cancer Biology, 2014

Dr. Michael Torres joined the NIH as a postbac where he worked with Dr. Mirit Aladjem, studying how cells deal with replication stress and how stalled replication can lead to DNA damage. In his current postdoc, he studies the regulation of nonsense-mediated mRNA decay in the context of disease causing nonsense mutations in Cystic Fibrosis (nmCF), as well as characterizing novel putative nonsense-mediated mRNA decay (NMD) suppressors as a therapeutic strategy for the treatment of nmCF. He is a cofounder of a biotech company that has raised over \$1M to date. We are developing a therapy to treat nonsense mutations that cause cystic fibrosis



How was your experience as a postbac at the NIH?

“My time at NIH was one of my most memorable experiences. Learning how to do science and think critically in an environment that was rooting for my success gave me the confidence to forge my own path into discovery and the successful launch of a company straight out of my post-doc.”

What advice would you give to new scholars?

“My advice is simple. Learn how to solve problems with an open mind and be mindful of the people around you. The relationships you build can last a life-time and be some of the most productive you'll ever have. Learning how good research can be collaborative and maintaining relationships with my peers is instrumental to future success. NIH tends to pick the best and brightest. I'm forever grateful for the experience.”