



## McNair Scholars Program

UNIVERSITY OF NEW HAMPSHIRE

SPRING 2019 ISSUE

### Congratulations To Our Seniors!



2017 Cohort

**Name:** Marie Akiki

**Major:** Biomedical Sciences

**Mentor:** Dr. Arturo Andrade

**Title of research:** "Localization of the 37a Isidore of the presynaptic N-type calcium channel that plays a role in anxiety?"

**Future Plans:** Marie will be working for Lonza, a major bioscience/tech company as a Manufacturing Associate in their Cell Therapy unit to gain field experience before she applies to graduate school.



2017 Cohort

**Name:** Rezwan Ali

**Major:** Civil Engineering

**Mentor:** Dr. Thomas Ballesterio

**Title of research:** "Investigation of coco pith in bioretention system media for nitrate removal from storm water runoff"

**Future Plans:** Rezwan plans will be working as a Civil Engineer for TEC, Inc. His primary focus at TEC, Inc. will be land management and storm water management.



2017 Cohort

**Name:** Emily Berry

**Major:** Genetics

**Mentor:** Dr. Kevin Culligan

**Title of research:** "Do RPA-dependent epigenetic modifications regulate flowering in *Arabidopsis thaliana*?"

**Future Plans:** Emily will be entering the University of Rochester's Ph.D. program in Genetics, Development and Stem Cells.



2018 Cohort

**Name:** Juan Gomez-Rivadeneira

**Major:** Neuroscience and Behavior

**Mentor:** Dr. Arturo Andrade

**Title of research:** "Neuronal-specific knockdown of the CG4587 & CG42817 alpha-2-delta proteins in *D. melanogaster*"

**Future Plans:** Juan is currently interviewing with Brown University for a research assistant position to gain experience for graduate school.

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# Congratulations To Our Seniors!



**2017 Cohort**

**Name:** Anna Haber  
**Major:** Genetics  
**Mentor:** Dr. Subhash Minocha  
**Title of research:** "Metabolic engineering of spermidine synthase in rice for holistic study of drought and salt tolerance"  
**Future Plans:** Anna will be entering Michigan State University's PhD program in Plant Breeding, Genetics and Biotechnology-Horticulture.



**2018 Cohort**

**Name:** Faith Heredia  
**Major:** Sociology  
**Mentor:** Dr. Semra Aytur  
**Title of research:** "The effect of varying social identities on the experience of menstruation"  
**Future Plans:** Faith will be a Teaching Resident with the East Harlem Teaching Residency Program, while obtaining a Master's of Science in Childhood Education (Grades 1-6) to then become a fully certified elementary school teacher



**2017 Cohort**

**Name:** Nhen Hunter  
**Major:** Genetics  
**Mentor:** Dr. David Plachetzke  
**Title of research:** "Transgenic Hydra: Editing the Opsin Gene with CRISPR"  
**Future Plans:** Nhen will either start her first semester in the Master's in Bioinformatics Program at Brandeis University this fall or work as a Helen Fellow for the American Museum of Natural History.



**2017 Cohort**

**Name:** Hayden Proborowski  
**Major:** Political Science  
**Mentor:** Dr. Dante Scala  
**Title of research:** "Analyzing right-wing populism in rural New Hampshire: a look at the 2016 presidential election"  
**Future Plans:** Hayden is enrolled in the Accelerated Master's Program in Political Science at UNH and will start this fall.

## Donovan Scholarship Recipients

Thank you to the Donovan family for their generous contributions which allows all four UNH TRIO Programs to award deserving UNH students a scholarship. Congratulations to this year's recipients!

**Ram Acharya ('22)**  
Educational Talent Search

**Francis Gesel ('20)**  
McNair Scholars Program

**Kristen Graham ('21)**  
Upward Bound

**Erika Schofield ('22)**  
Student Support Services

## McNair Current Statistics

Since the UNH McNair Scholars Program began in 1991, it has served **370** students. Of those, **160** alumni have gone on to receive a master's degree, **37** have earned a doctorate degree, and **17** have earned other professional degrees. **Thirteen** alumni are currently enrolled in PhD programs at various universities across the country.

There are currently **33** UNH McNair Scholars enrolled in the program and **8** Pre-McNair students are currently on their way to become McNair Scholars in the fall.

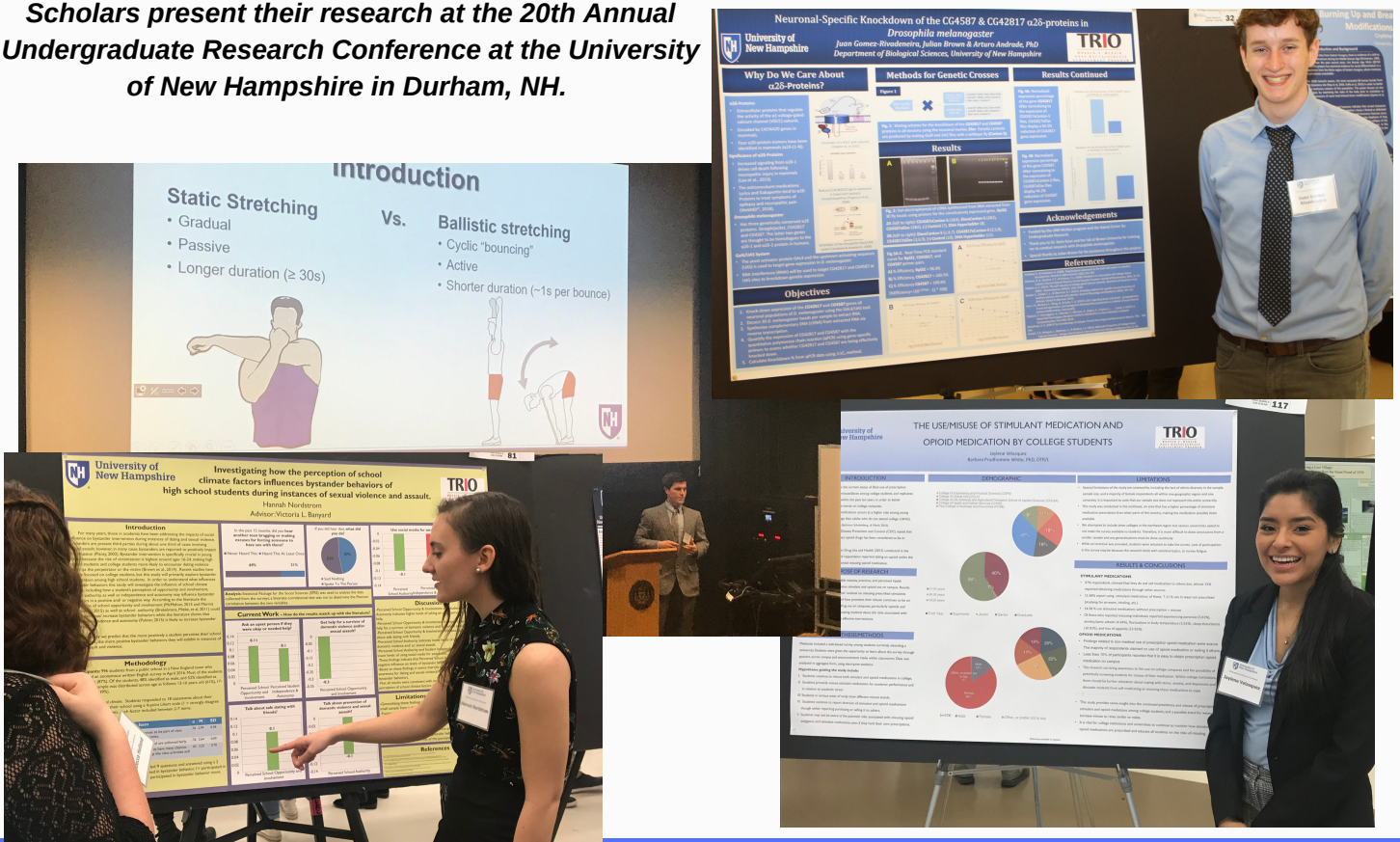


# 2019 Research Conferences

**Scholars at the 20th Annual University of Maryland National Conference for McNair Scholars and Undergraduate Research in College Park, MD**



**Scholars present their research at the 20th Annual Undergraduate Research Conference at the University of New Hampshire in Durham, NH.**





# Alumni Spotlight



Steven Arias is a proud McNair and UNH alumni. During his undergraduate years, Steven studied Physics and is now working towards his PhD in Physics at UNH. Three years into graduate school, Steven is continuing his love for research under the guidance of his mentor, Dr. Shawna Hollen.

Steven is researching the physical and electrical properties of two-dimensional materials with scanning probe microscopy. 2D materials are materials that are only one molecular layer thick, like graphene, a sheet composed of a single-layer of carbon molecules. The properties of 2D materials are of interest in the development for next-generation solar panels and optoelectronic devices.

In his free time Steven enjoys traveling and finding novel places to visit. He tries to take road trips as often as possible to other states and cities in Canada. Steven has also worked as a Graduate Peer Adviser for the McNair Summer Research Program at UNH, last summer. During this time, Steven mentored aspiring undergraduate researchers at UNH. We are happy to have him serve in this capacity again this summer. Steven has this advice for aspiring researchers,

**“My advice would be to keep looking for new opportunities to do research. There are plenty of ways to get started and there are plenty of people around who can help. There are going to be times when research seems tough and slow, but you must stay optimistic. Don’t be afraid to ask for help and to take time off from time to time.”**

Steven has found a passion in Physics research and wishes to continue it. He is unsure of his plans after graduate school, but he can see himself doing research in industry or at a national lab. Steven still has a couple of years left to decide and admits that even teaching is an option. For now, he continues his work in the Physics Department under Dr. Hollen and with the McNair Staff. We would like to thank him for his continued support of the UNH McNair Scholars Program.

## **The McNair Scholars Program wishes to acknowledge the McNair Advisory Committee for their service and continued support of our program and scholars**

**Dr. Carmela Amato-Wierda**, Associate Professor, Materials Science

**Dr. Arturo Andrade**, Assistant Professor, Biological Sciences

**Steven Arias**, PhD Student, Physics

**Dr. Per Berglund**, Professor, Physics & Astronomy

**Dr. John Collins**, Associate Professor, Molecular, Cellular, & Biomedical Sciences

**Dr. Margaret Greenslade**, Associate Professor, Chemistry

**Danielle Lavendier**, PhD Candidate, English

**Dr. Michelle Leichtman**, Professor, Psychology, Justice Studies

**Andres Mejia**, Coordinator of Connect Program

**Dr. Lawrence C. Reardon**, Associate Professor, Political Science

**Dr. Randy Schroeder**, Associate Director of TRIO/SSS

**Jeanne Sokolowski**, Director of the Office of National Fellowship

**Dr. Fiona Wilson**, Executive Director of the Center for Social Innovation and Enterprise, and Clinical Professor of Social Innovation, Social Entrepreneurship & Sustainability

We would like to extend a warm welcome to our newest committee member, **Dr. Daniel Howard**, Assistant Professor in the Biological Sciences Department.

# UNH McNair Backbones



**Randy Schroeder**, is an Associate Director for TRIO, Student Support Service (SS). Randy's focus is on academic and personal support and major career decision-making with undergraduates, and preparing for the Graduate Record Exam (GRE) and graduate school. Randy teaches his "GRE Preparation" course for McNair Scholars during the summer research fellowship at UNH. We would like to thank Randy for his continued support of the McNair Scholars Program.

**Dr. Barbara White**, also known by many as "Barb", is an Associate Professor of Occupational Therapy and the Executive Director of Undergraduate Academic programs. She teaches her 2-credit "Intro to McNair Research" course for McNair Scholars during their summer fellowship experience at UNH. Barb has also served as a faculty mentor for McNair Scholars throughout the years. We would like to thank Barb for her many contributions to the McNair Scholars Program.



## Thank You!

We would like to thank our faculty mentors for the support and guidance they provided over the last year to our 2018 summer scholars. Your commitment to mentoring our scholars is appreciated!

## *McNair Scholars Program Staff*

Tammy Gewehr, Director  
Selina Taylor, Associate Director  
Helen Lonek, Program Assistant  
Juan Gomez-Rivadeneira,  
Undergraduate Peer Advisor

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# Summer 2019

## Research Fellowships & Internships



**Julissa Freund** received an OCEANUS fellowship to conduct research at Texas A&M University.

**Angelique Georges** will study abroad for 8- weeks in Dijon, France at the Centre International d'Etudes Francaises.



**Francis Gesel** received a Summer Undergraduate Research Fellowship (SURF) to conduct research abroad at McMaster University in Canada.

**Hamida Hassan** will intern at Lamprey Health Group in Raymond, NH.



**Stephanie Lo** received a Research Experience for Undergraduates (REU) fellowship to conduct research at the University of Southern California.

**Brian Nguyen** received a Research Experience for Undergraduates (REU) fellowship to conduct research at Oregon State University.



**Jaylene Velasquez** will intern at Stamford Hospital in Stamford, CT.

## Upcoming Events

**June 2**

UNH McNair Summer Session Begins

**July 24**

UNH McNair Research Symposium  
9:30 AM- 12 PM, NH Hall, Room 208  
Open to UNH community

**July 18-20**

Undergraduate Research Conference at University at Buffalo

**July 31-August**

McNair Research Conference at UCLA