**List of Summer 2017 Hamilton Scholars**

**Division II**

ECONOMICS

Toria Mullen, “Economic Consequences of Brexit”. Mentor: Klaus Desmet

POLITICAL SCIENCE

Fairooz Adams, “Globalization and Mobility”. Mentor: Hiroki Takeuchi

PSYCHOLOGY

Jacob Harris, “Assertive Resistance and Sexual Violence”. Mentor: Lorelei Rowe

Charis Rodgers, “Culture and Relationship Beliefs”. Mentor: Lorelei Rowe

Brenna Williams, “Measuring Assertive Resistance and Developing an Online Assertiveness Training Program”. Mentor: Lorelei Rowe

**Division III**

BIOLOGICAL SCIENCES

Olivia McKnight “Molecular and Cellular Underpinnings of MeCP2 Duplication Syndrome”. Mentor: Santosh D’Mello

Nishad Mysore, “Molecular and Cellular Und3erpinnings of MeCP2 Duplication Syndrome.” Mentor: Santosh D’Mello

Jett Ballou-Crawford, “Molecular Mechanisms of Therapeutics: P-glycoprotein Inhibitors”. Mentor: Pia Vogel

Michael Fowler, “Developing MsbA as a druggable target for novel Antibiotics”. Mentor: Pia Vogel

Kasi Holcomb-Webb, “Expression of Membrane Pump Proteins in Chemotherapy Resistances in Cancers”. Mentor: John Wise

CHEMISTRY

Mackenzie Young, “Phosphazene Polymers Containing Antimicrobial Pyridine Groups”. Mentor: Patty Wisian-Neilsen

PHYSICS

Rachael LaCour, “Studies of Alpha Particle Detection Efficiency in the XIA and Studies of Radon Plate-out Effects of Charge Polyethylene”. Mentor: Jodi Cooley

Jasmine Liu, “Study of Cosmic Distance ladder from Cepheid Variable Stars”. Mentor: Robert Kehoe

Christina McConville, “Sky subtraction Optimization for Fast Data Reduction of the Dark Energy Spectroscopic Instrument”. Mentor: Robert Kehoe

Madeline Hamilton, “Intersection of Particle Physics and Data Analytics”. Mentor: Pavel Nadolsky

STATISTICS

Yifan Zhang, “A Study of Type 1 and Type II Error for Tie-Breaking Methods in Rank-Based Statistical Tests”. Mentor: Monnie McGee (Statistics)

HAMILTON SCHOLARS AY 2017-18
TENTH ANNIVERSARY YEAR

**Division One**

HISTORY

 Justin Yao “Seyyid Abdulqadir Nehri and the Pursuit of an Independent Kurdistan.” Mentor: Sabri Ates

RELIGIOUS STUDIES

Chloe Clark-Soles “Intellectual Humility and Dialogue in Online Settings”. Mentor: Jill DeTemple

**Division Two**

ANTHROPOLOGY

Ekiomoado Olumese “Minority Mental Health in Dallas: Challenges for Care Providers” Mentor: Neely A. Myers

ECONOMICS

Visakh Madathil “Artificial Intelligence, Robots and US Labor Market Outcomes” Mentor: James Lake

POLITICAL SCIENCE

Fairooz Adams “Globalization and Mobility”. Mentor: Hiroki Takeuchi

Carter Koehler “Mathematical Politics: Polarization and Redistricting”. Mentors: Matthew Wilson (Political Science) and Scott Norris (Mathematics)

PSYCHOLOGY

Heather Massman “Effect of a Self-persuasion Intervention on Individuals’ Beliefs and Behaviors about Skin Cancer Risk and Sun Protection Behaviors.” Mentor: Austin Baldwin

Shalanda Berkely “Acculturation, Diversity and Psychopathology”. Mentor: Priscilla Lui.

Kathryn Curtis “Acculturation, Diversity and Psychopathology”. Mentor: Priscilla Lui.

Susie Kim “Acculturation, Diversity and Psychopathology”. Mentor: Priscilla Lui.

Jacob Harris “Assertive Resistance and Sexual Violence”. Mentor: Lorelei Simpson Rowe

Charis Rodgers “The Impact of Culture on Relationship Beliefs and Experiences”. Mentor: Lorelei Simpson Rowe

Brenna Williams “Assertive Resistance, Disordered Eating Behaviors, and Sexual Victimization”. Mentor: Lorelei Simpson Rowe

Rachel Mumaw “Social Sensitivity Study”. Mentor: Benjamin Tabak

**Division Three**

BIOLOGICAL SCIENCES

Giorgio Ioannou “MeCP2 Duplication Syndrome” Mentor: Santosh D’Mello.

Nishad Mysore “ MeCP2 Duplication Syndrome” Mentor: Santosh D’Mello.

Louisa Smitherman “Sensitizing drug-resistant tumor cells to oxidative damage induced by anticancer chemotherapies that cause DNA-damage”. Mentor: Robert Harrod

Rachel Bergeson “Determining how kinase pathways regulate antioxidant signaling in virus-induced cancers”. Mentor: Robert Harrod.

Akanksha Devasigamani “Establishment of Epigenetic Gene Silencing”. Mentor: Rick Jones.

Mickey Glover “Establishment of Epigenetic Gene Silencing”. Mentor: Rick Jones.

Ololade Okunlola “Redox Signaling in the Endoplasmic Recticulum and Potential Impacts on Alzheimer's Disease (AD). Mentor: Bill Orr

Nathan Drolet “Dissecting the Role of Peroxiredoxin 6 in Alzheimer’s Disease.” Mentors: Bill Orr and Vladimir Klishko and Svetlana Radyuk

Michael Fowler “Optimizing Recombinant Expression of the Human Bresat Cancer Resistance Protein”. Mentor: Pia Vogel **FALL SEMESTER ONLY**

Brandon Tran “Optimizing Recombinant Expression of the Human Multidrug Resistance Protein”. Mentor: Pia Vogel **SPRING SEMESTER ONLY**

Jett Ballou-Crawford “Reconstituting the Multidrug Resistance P-glycoprotein into Nanodisk Membrane Mimetics” Mentor: Pia Vogel

Roxana Farokhnia “Optimizing Recombinant Expression of the Human Multidrug Resistance Protein”. Mentor: Pia Vogel.

Dakota Okwuone “Optimizing Recombinant Expression of the Human Multidrug Resistance Protein”. Mentor: John Wise

Beau Bequeaith “Searching for Inhibitors of the Human Breast Cancer Resistance Protein: A Cell Culture Approach.” Mentor: John Wise.

Kasi Holcomb-Webb “Assessing the Level of Expression of Multidrug Resistance Pumps in Human Cancer Cells”. Mentor John Wise.

CHEMISTRY

Jean Kim “The Design, Synthesis, and Evaluation of New Carbapenem Antibiotics to Treat Resistant Mycobacterium tuberculosis and Mycobacterium abscessus.” Mentor: John Buynak

Melina Cox “The Design, Synthesis, and Evaluation of New Carbapenem Antibiotics to Treat esistant Infections Caused by Resistant Gram negative Pathogens”. Mentor: John Buynak

Pavlik Polunin “Understanding Cu/O2 activation pathways”. Mentor: Isaac Garcia-Bosch

Anthony Spearman “A "Chemical Nose" Test for Spice/K2 Cannabinoids and Synthetic Derivatives”. Mentor: Alexander Lippert.

Mackenzie Young “Phosphazene Polymers Containing Antimicrobial Groups”. Mentor: Patty Wisian-Nielsen

Jaden Amilibia “Blue Light Photoreception in Agricultural Crops”. Mentor: Brian Zoltowski

Sydney Schmitt “Mechanistic Role of Cryptochrome in Metabolic Disorders”. Mentor: Brian Zoltowski.

MATHEMATICS

Sunjoli Aggarwal “Expansion and Maintenance of a Software Library to Facilitate the Use of Atomistic Simulations in Statistical Studies”. Mentor: Scott Norris

Jingzhen Hu “PKA Computation for Large Proteins Using Fast and Accurate Numerical Methods”. Mentor Weihua Geng

Xin Yang “Predicting Electrostatic Properties of Solvated proteins Using Machine Learning”. Mentor: Weihua Geng

PHYSICS

Rachael LaCour “Commissioning and First Studies Using the ORTEC Alpha Particle Counter in the SMU LUMINA Laboratory”. Mentor: Jodi Cooley

Jasmine Liu “Study of Cosmic Distance Ladder from Cepheid Variable Stars”. Mentor: Robert Kehoe

Christina McConville “Sky Subtraction Optimization for Fast Data Reduction of the Dark Energy Spectroscopic Instrument”. Mentor: Robert Kehoe

Payton Price “The Atlas Project”. Mentors Jingbo Ye and Andy Liu

Dennis Stewart “The Atlas Project”. Mentors Jingbo Ye and Andy Liu