SUMMER 2016 HAMILTON AWARDS

Anthropology

Caroline Jones, “Interventions for Latino/a Individuals with Psychosis”. (Mentor: Nia Parson)

Biology

Joseph DiPane, “The Molecular Mechanisms of Neurodegeneration”. (Mentor: Santosh D’Mello)

Abraham Hwang, “The Modular Assembly of Respiratory Complex I”. (Mentor: Steven Vik)

Stefanie Lohse, “Optimizing Growth and Purification of Human P-Glycoprotein for Use in Inhibitor Discovery”. (Mentor: Pia Vogel)

Vinita Mundluru, “The Impact of Peroxiredoxins on Physiology” (Mentor: William Orr)

Alexis Sunshine , “Correlating the Reversal of Multidrug Resistance in Cancers by Novel Efflux Pump Inhibitors to the Expression of ABC Transporters”. (Mentor: John Wise)

Vicki Wong, “Molecular Mechanisms by which PcG-mediated Gene Repression is Established” (Mentor: Rick Jones)

Chemistry

Maureen Lohry, “Chemiluminescent Reagents for Detecting Superoxide Using an Acyl Transfer Reaction” (Mentor: Alexander Lippert)

Mathematics

Arya McCarthy, “Tackling the Accuracy-Scaling Tradeoff for Simulating Gap Junctions in Neural Networks.” (Mentor: Scott Norris)

Jevon Shaw, “Quantifying the Neuronal Representation of a Large Space: A Mathematical Model” (Mentor: Kathryn Hedrick)

Physics

Moez Janmohammad, “Application of the Higgs Dijet Likelihood Ratio to production of Single Higgs Bosons at the Large Hadron Collider”. (Mentor: Stephen Sekula)

Jasmine Liu, “Search for Rapidly Varying Transients with ROTSE-IIIb Telescope”. (Mentor: Robert Kehoe)

Snigda Smriti, “Continual Studies of Environmental Factors Affecting Material Storage for Next Generation Dark Matter Experiments”. (Mentor: Jodi Cooley)

**LIST OF 2016-17 HAMILTONS (Year and One Semester Awards; one semester where indicated)**

**Divison One**

World Languages

Alejandra Colbert, “Philosopher Maria Zambrano: Crossing Border’s in Antigone’s Tomb” (Mentor: Denise DuPont) **FALL SEMESTER ONLY**

**Division Two**

Anthropology

Gillian Wright, “Pathways Through Care: Treatment Decisions and Drop-Out in Early Psychosis” (Mentor: Neely Myers, Anthropology)

Political Science

Claire Huitt, “Asia’s Contested Waters: The East and South China Seas” (Mentor: Hiroki Takeuchi, Political Science)

Madeleine Case, “Comparative Authoritarianism of Sate-Society Relations” (Mentor: Hiroki Takeuchi, Political Science)

Stefanie Lohse, “Infectious Disease Preparedness within Public Health Settings: Establishing a Set of Best Practices” (Mentor Katherine Bliss, Political Science and Tower Center)

Psychology

Valerie Becker, “Analyzing God as a Social Support Construct” (Mentor: Lorelei Rowe, Psychology)

Page Hurley, “My Family Study” (Mentor: Chrystyna Kouros, Psychology)

Rebecca Kim, “Cardiorespiratory Activation Deficits in Reward and Stress Reactivity in Anhedonia: T-Wave Amplitude, Respiratory Sinus Arrhythmia and Heart Rate as Diagnostic Markers (Mentor: Alicia Meuret, Psychology)

Candace Johnson, “The Examination of the role of Nitric oxide Expression in Predicting Cold Symptoms in Potential national PanHellenic Members” (Mentor: Thomas Ritz, Psychology)

Skylar Jayes, “Does Conscientiousness Moderate the Relationship between Anticipated Regret and Eating Behavior” (Mentor: Austin Baldwin, Psychology)

Sociology

Ella Mathews, “Innovation Districts and Cities” (Mentor: Matthew Keller, Sociology) **FALL 2016 ONLY**

Dominique Earland, “Neighborhood variance in late preterm birthrates” (Mentor: Sheri Kunovich, Sociology)

**Division Three**

Biology

Jake Oien, “In Silico Combinatorial Optimizations for Inhibitors of the Multidrug Resistance Transporter P-glycoprotein” (Mentor: John Wise)

Alexis Sunshine, “Gene Expression in Multidrug Resistant Cancers” (Mentor: John Wise) **FALL SEMESTER ONLY**

Michael Fowler, “Optimizing Yeast Growth Conditions and yield of P-glycoprotein Expression” (Mentor: Pia Vogel, Biology)

Joseph Di Pane, “Role of DBC1 in Huntington Disease and Other Neurodegenerative Disorders” (Mentor: Santosh D’Mello, Biology)

Hope Johnson, “Understanding MeCP2 Duplication Syndrome: Immunohistochemical Analyses” (Mentor: Santosh D’Mello, Biology)

Giorgio Ioannou, “Contribution of FUS in MeCP2 Duplication Syndrome” (Mentor: Santosh D’Mello, Biology)

Nishad Mysore, “HDRP in the Regulation of MeCP2-induced Neurodegeneration” (Mentor: Santosh D’Mello, Biology)

Evan Caston, “Polycomb-group (PcG) Proteins and Human Cancer” (Mentor: Rick Jones, Biology)

Vicki Wong, “Polycomb-group (PcG) Proteins and Human Cancer” (Mentor: Rick Jones, biology)

Noah Earland, “Peroxiredoxins and Aging” (Mentor: Bill Orr, Biology)

Katherine Nelson, “Interplay between p53 and NF-kappa B-Signaling in HTLV-1-induced Cancers” (Mentor Robert Harrod, Biology)

Katie Smith, “Determining how NF-kappa B-signaling by the HTLV-1 Transactivator Protein, Tax, influences Cellular Motility and the Epithelial-to-Mensenchymal Transition during Viral Carcinogenesis” (Mentor: Robert Harrod, Biology)

Chemistry

Patricia Nance, “Polyphosphasenes as Antimicrobial Surface Coatings for Breast Implants” (Mentor: Patty Wisian-Neilson, Chemistry)

Edward (Teddy) Hauptman, “Exploring Azide-Alkyne Reactions on Polyphosphazenes to Prepare Inorganic Polymers with Antimicrobial Activity” (Mentor: Patty Wisian-Neilson, Chemistry)

Shreya Patel, “Volumetric 3D Digital Light Photoactivatable Dye (3D Light PAD) Displays”, (Mentor: Alexander Lippert)

Pauline Nguyen, “Design, Synthesis, and Evaluation of New Carbapenem Antibiotics to Treat Resistant Gram-negative Pathogens” (Mentor: John Buynak, Chemistry)

Mathematics

Jacobus (Jake) Jordaan, “Solving Large Eigenvalue Problems with Mathematical Transforms and with Modern Scripting Language” (Mentor: Yunkai Zhou, Mathematics)

Jingzhen Hu, “Modeling, Algorithms, and simulations for Implicitly solvated Biomolecules” (Mentor Weihua Geng, Mathematics)

Aleena Taufiq, “Mesh Generation for Modeling the Human Lymph Node” (Mentor: Daniel Reynolds, Mathematics)

Margot Tollefsen, “Dynamics and Computation in near-symmetric random networks” (Mentor: Andrea K. Barreiro, Mathematics)

Ian Johnson, “Expansion and Maintenance of a Software Library to Facilitate the use of Atomist Simulations for Statistical Studies” (Mentor: Scott Norris, Mathematics)

Physics

Jasmine Liu, “Rapid Variable Backgrounds to Stellar Death Events” (Mentor: Robert Kehoe, Physics)

Jasmine Kim, “Computer Simulation of Quantum Mechanics in Undergraduate Physics” (Mentor Thomas Coan, Physics)