

2012 Summer Undergraduate Research Fund (SURF) Recipients

Project Title: *Improving Efficiency of Narrative Discourse Analysis in Persons with Brain Injuries*

Alexandra Addabbo, Communications Disorders , YOG: 2013

Faculty Mentor: Dr. Carl Coelho, Department of Communications Disorders

Project Title: *The Role of BspA-like Protein in the Microbial Gut Community of Reticulartermes Flavipes and Identification of Species that are Involved in Lignocellulose Degredation*

Adam Bartholomeo, Molecular and Cell Biology, YOG: 2013

Faculty Mentor: Dr. Daniel Gage, Department of Molecular and Cell Biology

Named Award: Ocean Rain Family Foundation Fund for Summer Undergraduate Research Award

Project Title: *Surveying the Self-Medication Practices of Adults with Sickle Cell Disease*

Courtney Beyers, Nursing, YOG: 2013

Faculty Mentor: Victoria Odesina, DNP, Department of Nursing

Project Title: *Investigating of an Efficient System to Harvest Clean Energy from Structural Vibrations*

Bryan Blanc, Civil Engineering, YOG: 2013

Faculty Mentor: Dr. Ramesh Malla, Department of Civil and Environmental Engineering

Named Award: The DeMaio Family Summer Undergraduate Research Fund

Project Title: *Investigating of an Efficient System to Harvest Clean Energy from Structural Vibrations*

Kelsey Boch, Chemical Engineering, YOG: 2013

Faculty Mentor: Dr. Yong Wang, Department of Chemical, Materials, and Biomolecular Engineering

Project Title: *On the Semantic Organization of Concrete and Abstract Terms: a Follow-up to Dunabietia et al. 2009*

Christopher Brozowski, Cognitive Science, YOG: 2013

Faculty Mentor: Dr. James Magnuson, Department of Psychology

Project Title: *Psychological and Emotional Factors to Development in Young Adults with HIV*

Jenna Burns, Nursing, YOG: 2013

Faculty Mentor: Dr. Elizabeth Anderson, Department of Nursing

Project Title: *An Investigation into the Synthesis and Reaction Properties of Sulfur Monoxide*

Casey Camire, Chemistry, YOG: 2014

Faculty Mentor: Dr. Nicholas Leadbeater, Department of Chemistry

Project Title: *The Impact of the Zebra Mussel (Dreissena Polymorpha) Invasion in the Hudson River on the Feeding Ecology of Three Larval and Juvenile Fish Species*

Grace Casselberry, Ecology and Evolutionary Biology, YOG: 2013

Faculty Mentor: Dr. Eric Schultz, Department of Ecology and Evolutionary Biology

Project Title: *Interfaces Between Two Polymorphs of Natural Crystal Titanium Dioxide*

Jason Chan, Materials Science and Engineering, YOG: 2013

Faculty Mentor: Dr. C. Barry Carter, Department of Chemical, Materials, and Biomolecular Engineering

Project Title: *Role of CELF4 in the Differentiation and Maturation of the Retinal Ganglion Cell Layer*
Sean Condon, Physiology and Neurobiology, YOG: 2013
Faculty Mentor: Dr. Rahul Kanadia, Department of Physiology and Neurobiology

Project Title: *The Functionality of Bacteriorhodopsin Mutants for the Detection of hazardous Chemicals*
Edward Courchaine, Structural Biology/Biophysics, YOG: 2014
Faculty Mentor: Dr. Robert Birge, Department of Chemistry
Named Award: Doug Anton Award

Project Title: *Enhancing Autistic Children's Communicative Skills*
Darryl Cummings, Biomedical Engineering, YOG: 2014
Faculty Mentor: Dr. Anjana Bhat, Department of Kinesiology
Named Award: The McKinney-Lindsay Family Award

Project Title: *A Method for Observing the Development of Biofilms on Water Purification Membranes in Real Time*
Jacob Deneff, Chemical Engineering, YOG: 2014
Faculty Mentor: Dr. Leslie Shor, Department of Chemical Engineering

Project Title: *Better Defining the Habitat Characteristics that Effect the Survival of Death of Newly Planted Eelgrass Beds*
Jennifer Dootz, Marine Science, YOG: 2013
Faculty Mentor: Dr. James Vaudrey, Department of Marine Science

Project Title: *Sexual Imprinting in Betta Splendens*
Steven Ehrlich, Ecology and Evolutionary Biology, YOG: 2013
Faculty Mentor: Dr. Eric Schultz, Department of Ecology and Evolutionary Biology
Named Award: Mark E. Karp Award

Project Title: *Effort-Related Impairments Produced by Pro-Inflammatory Cytokines*
Brian Epling, Individualized and Interdisciplinary, Behavioral Neuroscience, YOG: 2013
Faculty Mentor: Dr. John Salamone, Department of Psychology

Project Title: *Eurycea Bislineata Embryonic Development: Revisited 101 Years Later*
Taylor Ferguson, Ecology and Evolutionary Biology, YOG: 2013
Faculty Mentor: Dr. Elizabeth Jockusch, Department of Ecology and Evolutionary Biology

Project Title: *Pax7, MyoD and Myogenin Expression in the Lambs of Over and Underfed Ewes*
Rachel Forbes, Animal Science, YOG: 2013
Faculty Mentor: Dr. Sarah Reed, Department of Animal Science

Project Title: *The Somatotropic Axis in the Nutritionally Compromised Ewe*
Michelle Forella, Department of Animal Science, YOG: 2013
Faculty Mentor: Dr. Steven Zinn, Department of Animal Science
Named Award: Treibick Scholar

Project Title: *Intra-uterine Growth Retardation in Sheep*
Amanda Fox, Animal Science, YOG: 2013
Faculty Mentor: Dr. Steven Zinn, Department of Animal Science

Project Title: *Restoring Effort-Related Functions in Models of Depression Symptoms: Reversing Fatigue Symptoms Induced by Tetrabenazine with the Adenosine A2A Antagonist Msx-3*
Charlotte Freeland, Physiology and Neurobiology, YOG: 2013
Faculty Mentor: Dr. John Salamone, Department of Psychology

Project Title: *The Effect of Land Locking an Aquaporin Expressino in the Intestinal Epithelium of Alosa Pseudoharengus (alewife)*
Emily Funk, Ecology and Evolutionary Biology, YOG: 2013
Faculty Mentor: Dr. Eric Schultz, Department of Ecology and Evolutionary Biology
Named Award: Mathew Jasinski Award

Project Title: *A Pilot Study of a Rodent Model of HI Brain Injuries of Prematurity*
Haley Garbus, Psychology, YOG: 2015
Faculty Mentor: Dr. Roslyn Holly Fitch, Department of Psychology
Named Award: College of Liberal Arts and Sciences Deans Award

Project Title: *Investigation of the Mechanism of Cellular Toxicity of Silica Particles*
Alexandra Goetjen, Molecular and Cell Biology, YOG: 2013
Faculty Mentor: Dr. David Knecht, Department of Molecular and Cell Biology
Named Award: Alan Bernstein Award

Project Title: *Understanding the Host Cell Factors that Drive Actin Pedestal Assembly During Enterohemorrhagic E. Coli Infection*
Sarah Grout, Biological Sciences, YOG: 2013
Faculty Mentor: Dr. Kenneth Campellone, Department of Molecular and Cell Biology
Named Award: College of Liberal Arts and Sciences Deans Award

Project Title: *Copenhagen as a Canvas: a Study of the Presence of Street Art*
Karolina Hac, Art History, YOG: 2014
Faculty Mentor: Dr. Jean Givens, Department of Art and Art History

Project Title: *Characterization of Dicer Expression in Abnormal Skin Types*
Katherine Han, Molecular and Cell Biology, YOG: 2014
Faculty Mentor: Dr. Sam (Soheil) Dadras, Department of Genetics and Developmental Biology

Project Title: *Supramolecular Polymerization from Branched Macromolecules*
On-You Jung, Chemistry, YOG: 2013
Faculty Mentor: Dr. Yao Lin, The Institute of Material Sciences

Project Title: *Analysis of the 2012 Connecticut Redistricting Comprehensive Electoral and Demographic Data*
Christopher Kempf, Political Science, YOG: 2013
Faculty Mentor: Dr. Ronald Schurin, Department of Political Science
Named Award: Christopher M. Lewis Fund

Project Title: *Are New England and Eastern Cottontails Competing for the same food resources?*

Samantha Kremidas, Natural Resources, YOG: 2013

Faculty Mentor: Dr. Morty Ortega, Department of Natural Resources and Environment

Project Title: *Development of Behavioral Endpoints for Mummichog (*Fundulus heteroclitus*) as a Toxicology Model for Estuarine Environments*

Tanya Lama, Natural Resources Management, YOG: 2013

Faculty Mentor: Dr. Thijs Bosker, Department of Natural Resources and the Environment

Named Award: Mr. Michael Alpert and Ms. Ariana Napier Honors and Enrichment Scholarship

Project Title: *Serum Type II Collagen Telopeptide (CTX II) Levels in a Rabbit Septic Arthritis model*

Juliana Lau, Biological Sciences, YOG: 2014

Faculty Mentor: Dr. Mark Lee, M.D., Department of Orthopaedics

Named Award: College of Liberal Arts and Sciences Deans Award

Project Title: *Slowing, Cooling, and Laser Spectroscopy of CaF*

Tony Le, Physics, YOG: 2014

Faculty Mentor: Dr. Edward E. Eyler, Department of Physics

Named Award: College of Liberal Arts and Sciences Deans Award

Project Title: *Measuring the Affinity Between Translation Factor BipA and the 70S Ribosome*

David Levitz, Structural Biology and Biophysics, YOG: 2013

Faculty Mentor: Dr. Victoria Robinson, Department of Molecular and Cell Biology

Project Title: *Inherit the Culture: Traditional Puppetry in China*

Xingxin Liu, Puppet Arts, YOG: 2013

Faculty Mentor: Dr. Bartolo P. Roccoberton, Jr., Department of Dramatic Arts

Project Title: *Analysis, Probability, and Mathematical Physics on Fractals*

Jason Marsh, Mathematics, YOG: 2014

Faculty Mentor: Dr. Alexander Teplyaev, Department of Mathematics

Named Award: Trimble Family Award

Project Title: *A Descriptive Study of Postoperative Pain Management for Opioid Tolerant Patients*

Casey Martin, Nursing, YOG: 2013

Faculty Mentor: Dr. Deborah McDonald, Department of Nursing

Project Title: *Synthesis and Characterization of Titanium Dioxide Nanoparticles*

Nathan Martin, Materials Science and Engineering, YOG: 2014

Faculty Mentor: Dr. C. Barry Carter, Department of Chemical, Materials and Biomolecular Engineering

Project Title: *Effect of Maternal HyD Supplementation on Fetal Bone Development in Pigs*

Katelyn McFadden, Animal Science, YOG: 2015

Faculty Mentor: Dr. Kristen Govoni, Department of Animal Science

Project Title: *Chronic Administration of the Non-Competitive NMDA Antagonist, Ketamine: Can Parvalbumin Positive Interneuron Loss be Related to Deficits in Cognition?*

Casey McMahon, Psychology, YOG: 2014

Faculty Mentor: Dr. James Chrobak, Department of Psychology

Project Title: *Functional Characterization of the Reconstituted ADP/ATP Carrier by Luminescence*

Catherine O'Brien, Molecular and Cell Biology, YOG: 2013

Faculty Mentor: Dr. Nathan Alder, Department of Molecular and Cell Biology

Named Award: College of Liberal Arts and Sciences Deans Award

Project Title: *Functional Analyses of the Developmental Genes Fringe, Frizzled, and Dishevelled in Appendage Patterning in the Red Flour Beetle Tribolium Castaneum*

Devin O'Brien, Ecology and Evolutionary Biology, YOG: 2013

Faculty Mentor: Dr. Elizabeth Jockusch, Department of Ecology and Evolutionary Biology

Named Award: College of Liberal Arts and Sciences Deans Award

Project Title: *Ranavirus in Connecticut: a Potential Threat to Local Amphibian Populations*

Kelly O'Connor, Natural Resources Conservation, YOG: 2013

Faculty Mentor: Dr. Tracy Rittenhouse, Department of Natural Resources and the Environment

Named Award: Sterling - Wasserman Family Award

Project Title: *Design a Microfluidic Protozoa Separator for Genetic Analysis of Microbial Eukaryotes in Termites Guts*

Erika Orner, Pathobiology and Veterinary Sciences, YOG:2013

Faculty Mentor: Dr. Leslie Shor, Department of Chemical Engineering

Named Award: Treibick Scholars

Project Title: *Translating Period Costume for Modern Theatre*

Christine Ostner, Design/Technical Theater, YOG: 2013

Faculty Mentor: Dr. Laura Crow, Department of Dramatic Arts

Named Award: Robert and Elizabeth Subkowsky Award

Project Title: *Population Structure and Territoriality in the Invasive Ant*

Anne O'Sullivan, Ecology and Evolutionary Biology, YOG: 2013

Faculty Mentor: Dr. Eldridge Adams, Department of Ecology and Evolutionary Biology

Named Award: Ocean Rain Family Foundation Fund for Summer Undergraduate Research Award

Project Title: *Bacterial SmtA as an Antioxidant that Influences Bacterial Survival in a Mammalian Infection*

Neyati Patel, Biomedical Engineering, YOG: 2014

Faculty Mentor: Dr. Michael A. Lynes, Department of Molecular and Cell Biology

Named Award: Treibick Scholars

Project Title: *Toward an Understanding of Performance Contents for the Carols of the Ritsor Manuscript, BL Add. 5665*

Anastasia Pilato, Music History, YOG: 2013

Faculty Mentor: Dr. Eric Rice, Department of Music

Named Award: Dr. Roger Cherney Award

Project Title: *Impact of Statistical Saliency on Metonymy Resolution*

Robert Powers, Cognitive Science, YOG:2013

Faculty Mentor: Dr. Whitney Tabor, Department of Psychology and Linguistics

Named Award: College of Liberal Arts and Sciences Deans Award

Project Title: *Development of a Computer Model for Melanoma Metastasis*

Priya Ranade, Biological Sciences, YOG: 2013

Faculty Mentor: Dr. Michael Lynes, Department of Molecular and Cell Biology

Project Title: *From Blank Page to Final Bow: a Comprehensive Approach to the Creation of 21st Century American Opera*

Spencer Reese, Music, YOG: 2013

Faculty Mentor: Dr. Constance Rock, Department of Music

Named Award: Dr. Roger Cherney Award

Project Title: *Integrating Vision and Speech: a Window Into the Developing Mind*

Arielle Rubin, Psychology, YOG: 2013

Faculty Mentor: Dr. Heather Bortfeld, Department of Psychology

Named Award: Ocean Rain Family Foundation Fund for Summer Undergraduate Research Award

Project Title: *A "Helpless" System for the Generation of Recombinant Vaccinia Viruses*

Ethan Sarnoski, Pathobiology, YOG: 2013

Faculty Mentor: Dr. Paulo Verardi, Department of Pathobiology

Project Title: *Remembering the Holocaust and Combatting Indifference: the Jewish Museum Berlin*

David Schwegman, History, YOG: 2013

Faculty Mentor: Dr. Cathy Schlund-Vials, Department of English and the Asian American Studies Institute

Named Award: Virginia DeJohn Anderson Award

Project Title: *The Reflection of Human Capitalist and Discrimination Theory in Public and Private Gender Wage Gap Policies*

Claire Simonich, Political Science, YOG: 2013

Faculty Mentor: Dr. Virginia Hettinger, Department of Political Science

Named Award: The DeMaio Family Summer Undergraduate Research Fund

Project Title: *Characterization of Equine Satellite Cells*

Tymoteusz Siwy, Animal Science, YOG: 2015

Faculty Mentor: Dr. Sarah Reed, Department of Animal Science

Project Title: *Optimization of pH by the Injection of CO₂ for the Best Compromise Between Productivity and Production Costs for *Garcilaria tikvahiae* Nursery Systems*

Philip Speirs, Psychology, YOG: 2013

Faculty Mentor: Dr. Charles Yarish, Department of Biology

Project Title: *Estrogen Control of SOX9 in Human Pluripotent Embryonal Carcinoma NT2/D1 Cell Line*
Robert Stickels, Molecular and Cell Biology, YOG: 2014
Faculty Mentor: Dr. Andrew Pask, Department of Molecular and Cell Biology

Project Title: *Looking to the SKY: Chromosomes and Cancer*
Parker Sulkowski, Molecular and Cell Biology, YOG: 2013
Faculty Mentor: Dr. Rachel O'Neill, Department of Molecular and Cell Biology

Project Title: *Characterization of Ependymal Barrier Integrity in the Human Brain*
Ye Sun, Biology, YOG: 2014
Faculty Mentor: Dr. Joanne Conover, Department of Physiology and Neurobiology

Project Title: *The Role of Adiponutrin Single Nucleotide Polymorphisms on the Genetic Predisposition to Fatty Liver in Dairy Cattle*
Molly Viner, Animal Science, YOG:2013
Faculty Mentor: Dr. Heather White, Department of Animal Science
Named Award: Treibick Scholars

Project Title: *Irish Revel Songs: Spreading the Word*
Christopher Wasko, Music, YOG: 2013
Faculty Mentor: Dr. Mary Ellen Junda, Department of Music
Named Award: Robert and Elizabeth Subkowsky Award

Project Title: *Stochastic Analysis, Lyapunov Exponents*
David Wierschen, Mathematics, YOG: 2013
Faculty Mentor: Dr. Alexander (Sasha) Teplyaev, Department of Mathematics

Project Title: *Functionalization and Analysis of Graphene Oxide and Its Applications*
Adam Woomer, Chemistry, YOG:2013
Faculty Mentor: Dr. Douglas Adamson, Department of Chemistry

Project Title: *Signal Detecting Theory for Detecting Sound Periodicity*
Cheng Yang, Biomedical Engineering, YOG: 2014
Faculty Mentor: Dr. Heather Reed, Department of Psychology
Named Award: Treibick Scholars

Project Title: *Reconstruction of Rhodopsin in Nanodiscs and Lipodisc Complexes*
Diane Yu, Structural Biology/Biophysics, YOG: 2013
Faculty Mentor: Dr. Arlene Albert, Department of Molecular and Cell Biology
Named Award: Dr. John Tanaka Academic Enhancement Fund for Honors