UConn IDEA Grant
imagine / develop / engage / apply

Cohort 4 / Fall 2014 UConn IDEA Grant Award Recipients

Individual Projects

Michael Bond '16 (Molecular and Cell Biology, CLAS; Chemical Biology, CLAS)
Synthesis of Novel Compounds That Target Death Receptor Trafficking Defects in Colon Cancer Cells
Mentors: Charles Giardina, Molecular and Cell Biology, CLAS; Dennis Wright, Pharmacy, PHR

- Michael investigated the effect of microtubule disruption on both death receptor trafficking and sensitivity to death inducing ligands in colon cancer cells.

Maria Castrellon Romero '16 (Environmental Engineering, ENG)
Field Work for the Conceptual Hydrogeological Model in La Villa River Watershed, Republic of Panama
Mentor: Amvrossios Bagtzoglou, Civil and Environmental Engineering, ENG

- Maria conducted fieldwork in the region of La Villa River Watershed in the Republic of Panama to obtain data for the creation of a conceptual hydrogeological model of the region.

Maneetpaul Chawla, Dec '15 (Business Administration, BUSN; Digital Media and Design, SFA)
They Called Me Osama
Mentor: Matthew Worwood, Digital Media and Design, SFA

- Maneetpaul produced a short film that shares the stories of Sikh Americans who have been victims of hate crimes and showcases the various initiatives taking place to fight the issue of mistaken identity in America.

Henry Chen '16 (Molecular and Cell Biology, CLAS; Physiology and Neurobiology, CLAS)
Hostile Takeover: Enterohemorrhagic E. coli and Innate Immunity Cells
Mentor: Kenneth Campellone, Molecular and Cell Biology, CLAS

- Henry characterized the interaction between Enterohemorrhagic E. coli (EHEC) and cells of the innate immune system to determine how EHEC—the leading cause of pediatric kidney failure—affects migration and cytokine secretion by neutrophils and macrophages.

John Colavito, Dec '15 (Italian Literary and Cultural Studies, CLAS; Biological Sciences, CLAS)
The Urban Canvas: Visualizing the Cultural Pulse of Italian City Life through Public Art
Mentor: Philip Balma, Literatures, Cultures and Languages, CLAS

- John photographically recorded culturally informative forms of graffiti and street art in the Italian cities of Milan, Florence, Rome, and Naples, and analyzed the photos from a socio-political perspective to measure the cultural pulse of the cities.

Stephen Hawes '17 (Mechanical Engineering, ENGR)
3D Printed Prosthetic Hand
Mentor: Anson Ma, Chemical and Biomolecular Engineering, ENG

- Stephen created a prototype of a customizable 3D printed prosthetic arm and hand that utilizes open source EMG sensors that monitor the amputee's forearm muscles to control the prosthesis motion.

Casey Healey '17 (Spanish, CLAS; Economics, CLAS)
Empowerment of Undergraduate Women at the University of Connecticut Honors Program
Mentors: Paula Wilmot, Honors Program; Jaclyn Chancey, Honors Program

- Casey conducted a qualitative research study to examine the experiences of undergraduate women in the University of Connecticut Honors Program to determine the impact of honors programs on their feelings of empowerment.

Jasmine Jones '16 (Art: Photography, SFA)
The Summer of Ballroom
Mentor: Ray DiCapua, Art and Art History, SFA

- Jasmine filmed a documentary in New York City profiling the lives of various individuals involved in an underground, LGBT-based community known as the Ballroom Scene.

Jessica Laprise '16 (Nursing, NUR)
Identification of Student Nurses' Knowledge and Attitudes Regarding Pediatric Pain Management
Mentors: Jacqueline McGrath, Nursing, NUR; Renee Manworren, Connecticut Children's Medical Center

- Jessica conducted a study to describe nursing students' current attitudes and level of knowledge regarding pediatric pain, as well as identify any gaps in knowledge, through the use of the Pediatric Healthcare Providers' Knowledge and Attitudes Survey (PHPKAS).

Jonathan Markovics '18 (American Studies, CLAS)
Color Out Cancer
Mentor: Lisa Hastings, Student Affairs, UConn Avery Point Campus

- Jonathan led a service project that provided room makeovers to pediatric cancer patients in recovery to help ease the physical and emotional pains of cancer.

Madeline Nicholson '17 (Art: Studio, SFA)
Fleeting, Floating Beauty
Mentor: Ray DiCapua, Art and Art History, SFA

- Madeline created an interactive art and video installation based off of closed eye visuals to reflect and explore the beauty of this optical sensation.

Nicholas Parks '17 (Puppet Arts, SFA)
Creature Close-Ups
Mentor: Bart Roccoberton, Puppet Arts, SFA

- Nicholas built the first of many highly detailed realistic meet-and-greet suits of current and prehistoric animals for use as an educational tool in museums, zoos, aquariums, and similar settings.

Christian Ratliff '16 (Electrical Engineering, ENGR)
Pole Changing Induction Machine for Direct Drive Traction Applications
Mentor: Ali Bazzi, Electrical and Computer Engineering, ENG

- Christian investigated new winding and control schemes for induction motors with the goal of devising an electric motor system that can adapt its torque-speed curve to the application, and thus achieve higher efficiency and performance characteristics.

Kayla Rutland, Dec. ’15 (Nutritional Sciences, CAHNR)
Cultivating Change: Building a Cooperative Garden to Improve Local Communities
Mentor: Phoebe Godfrey, Sociology, CLAS

- Kayla cooperated with local non-profit partners to plan, construct, and maintain a community vegetable garden to address food insecurity, spread ideas of sustainable agriculture, foster community engagement, and promote healthy lifestyles in the town of Windham, CT.

Sarah Warack ’18 (Pharmacy, PHR)
Development of a Polymer-Based Nanoparticle System for Tumor-Targeted Delivery of siRNA to Overcome Multidrug Resistance
Mentor: Xiuling Lu, Pharmaceutical Science, PHR

- Sarah worked towards the creation of a novel polymer nanoparticle carrier for siRNA that will deliver siRNA to tumor cells in order to improve therapeutic outcomes and reduce efflux pump-based multidrug resistance.

Benjamin White ’17 (Psychology, CLAS)
Effects of Everyday Stress and Social Support on Well-Being
Mentor: Bradley Wright, Sociology, CLAS

- Benjamin analyzed the impact of social events and stress on well-being using experience sampling method data from a nationwide, smartphone-based survey to test the real-time impact of social factors that occur in everyday life.

Nathan Wojtyna ’16 (Horticulture, CAHNR)
Overcoming Production Hurdles of Aronia Mitschurinii ‘Viking’ Through Elevation Grafting
Mentor: Mark Brand, Plant Science and Landscape Architecture, CAHNR

- Nathan investigated ways to improve the production viability of *Aronia mitschurinii* ‘Viking’, a New England native fruit, by identifying compatible rootstock for grafting that will enable growers to harvest the fruit using conventional mechanical harvesters.

Calliope Wong ’17 (English, CLAS)
Hyaline Songs
Mentor: Kenneth Fuchs, Music Composition, SFA

- Calliope created an album of instrumental music with paired tracks, each pair having one improvised on piano and a digitally-created version, which shares her personal story growing up as a transgender woman. These songs explore the relationship between her ideals and physical realities.

Group Projects

Edward Anderson ‘17(Mechanical Engineering, ENGR)
Catherine Thomas ’16 (Molecular and Cell Biology, CLAS)
Esperanto: The Ones Who Hope
Mentor: Charles Hagen, Art and Art History, SFA

- Catherine and Edward produced a documentary on the constructed language Esperanto. The documentary focuses on the contemporary culture that has developed around the language and is being used to help spread the knowledge of this language and the multinational culture behind it.

Melissa Calderon ‘16 (Digital Media and Design, SFA)
Kristina Krusiy ‘16 (Psychology, CLAS; Digital Media and Design, SFA)
Emoticons for Awareness
Mentor: Philip Dwire, Digital Media and Design, SFA; Steve Harper, Digital Media and Design, SFA

- Melissa and Kristina created an app that will allow users to use newly designed emoticons and buy special in-app emoticon packages with proceeds going towards charitable causes.

Ashlesha Dhuri ’16 (Cognitive Science, CLAS)
Caleb Gates ’16 (Mechanical Engineering, ENGR)
Rosse Gates ’16 (Mechanical Engineering, ENGR)
Gazment Sosoli ’16 (Mechanical Engineering, ENGR)
Eleframes
Mentor: Matthew Cremins, VODA Water

- The Eleframes team developed, produced, and marketed their unique Eleframes modular picture display kits as an inexpensive solution for college students looking to decorate their dorm rooms.