



Fall 2014 UConn IDEA Grant Award Recipients

Congratulations to the twenty-six UConn undergraduates who have been awarded UConn IDEA Grants! Eighteen of the award recipients will be completing individual projects, and eight will be working on collaborative group projects.

The award recipients represent a variety of disciplines, from puppetry to mechanical engineering, nursing to horticulture, and campus affiliations, including three recipients from the Stamford campus and one from the Avery Point campus.

Special thanks to the faculty and staff that supported student applications to the UConn IDEA Grant and to those who will be mentoring the award recipients as they complete their projects.

Individual Projects

Michael Bond '16 (Molecular & Cell Biology, CLAS)

Synthesis of Novel Compounds That Target Death Receptor Trafficking Defects in Colon Cancer Cells

- Michael will investigate 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, ENGR)

Field Work for the Conceptual Hydrogeological Model in La Villa River Watershed, Republic of Panama

- Maria will conduct 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 & Design, SFA)

They Called Me Osama

- Maneetpaul will produce 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 & Cell Biology, CLAS; Physiology & Neurobiology, CLAS)

Hostile Takeover: Enterohemorrhagic E. coli and Innate Immunity Cells

- Henry will characterize 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 & Cultural Studies, CLAS; Biological Sciences, CLAS)

The Urban Canvas: Visualizing the Cultural Pulse of Italian City Life through Public Art

- John will photographically record culturally informative forms of graffiti and street art in the Italian cities of Milan, Florence, Rome and Naples, and analyze 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

- Stephen will create 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

- Casey will conduct 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

- Jasmine will film 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, NURS)

Identification of Student Nurses' Knowledge and Attitudes Regarding Pediatric Pain Management

- Jessica will conduct 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

- Jonathan will lead a service project which will provide room makeovers to pediatric cancer patients currently undergoing treatment or in recovery to help ease the physical and emotional pains of cancer.

Madeline Nicholson '17 (Art: Studio, SFA)

Fleeting, Floating Beauty

- Madeline will create a series of paintings and an interactive 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

- Nicholas will build 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

- Christian will investigate 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

- Kayla will cooperate 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, PHARM)

Development of a Polymer-Based Nanoparticle System for Tumor-Targeted Delivery of siRNA to Overcome Multidrug Resistance

- Sarah will work 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 '18 (Pre-Pharmacy, ACES)

Effects of Everyday Stress and Social Support on Well-Being

- Benjamin will analyze 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

- Nathan will investigate 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

- Calliope will create 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

- Catherine and Edward will make a documentary on the constructed language Esperanto. The documentary will focus on the contemporary culture that has developed around the language and will be used to help spread the knowledge of this language and the multinational culture behind it.

Melissa Calderon '16 (Digital Media & Design, SFA)

Kristina Krusiy '16 (Psychology, CLAS; Digital Media & Design, SFA)

Emoticons for Awareness

- Melissa and Kristina plan to create 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)

StoryLine

- The *StoryLine* team will work to develop, produce, and market their unique *StoryLine* modular picture display as an inexpensive solution for college students looking to decorate their dorm rooms.

The UConn IDEA Grant program awards funding to support self-designed projects including artistic endeavors, community service initiatives, traditional research projects, entrepreneurial ventures, and other creative and innovative projects. Undergraduates in all majors at all campuses can apply. Applications are accepted from individuals and from small groups who plan to work collaboratively on a project.

More information on the UConn IDEA Grant program can be found at <http://ugradresearch.uconn.edu/IDEA>.