



Cohort 8 / Fall 2016 UConn IDEA Grant Award Recipients

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

The award recipients represent a variety of disciplines – from marine sciences to political science, illustration to biomedical engineering – and include two recipients from the Avery Point campus. They will create multimedia exhibitions, develop prototypes, assess educational interventions, and evaluate environmental impact.

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

Colby Buehler '18 (Chemical Engineering, ENG)

Analyzing the Effect of Drift between Conventional and Organic Farmland

Mentor: Kristina Wagstrom, Chemical & Biomolecular Engineering, ENG

- Utilizing low cost sensors and analysis, Colby will monitor the effect of drift between conventional UConn farmland and two organic farms - the Spring Valley Student Farm and EcoGarden – to understand how pesticides, herbicides, and fertilizers deposit to nearby areas.

Kiana Cao '18 (Graphic Design, SFA)

Examining Japanese Buddhism through the Eyes of Hawaii

Mentor: Cathy Schlund-Vials, English & Asian American Studies, CLAS

- After researching the differences between Japanese Buddhism in Japan and Hawaii, Kiana will create a multimedia exhibition that explores the history, architecture, and nature of Japanese Buddhism and how the religion was developed and shaped when brought overseas to Hawaii.

Camille Chill '18 (Political Science, CLAS; Journalism, CLAS)

Designing a Supplemental Curriculum for the 'Youth and Government' Program

Mentor: Kristin Kelly, Political Science, CLAS

- Camille will develop a written curriculum supplement and video material for a mock government program offered to high school students by the YMCA. This project will equip students with the tools to be active participants in democracy in a meaningful, educated way.

Danni Dong '18 (Psychological Sciences, CLAS)

Observational Learning in Pair Housed Female Rats Using a Water T-Maze

Mentor: Etan Markus, Psychological Sciences, CLAS

- Danni will investigate observational learning in female rats. By looking at the effect of pair housing, estrous cycles, and testing order, she will be able to test variables that have rarely been studied before.

Ariane Garrett '20 (Biomedical Engineering, ENG; Spanish, CLAS)

Developing an LED-Based Photoacoustic Microscopy Imaging Device

Mentor: Kazunori Hoshino, Biomedical Engineering, ENG

- Ariane will prototype a hand-held, LED-based photoacoustic microscopy imaging system that will provide information on the physiological processes occurring just below the surface of the skin to aid diagnosis in cancer patients.

James Keth '19 (Fine Arts, SFA; Biology, CLAS)

The Untold Genocide: An Examination of Postmemory on the People of Cambodia

Mentor: Cora Lynn Deibler, Art & Art History, SFA

- James will create an immersive mixed media art installation that explores the concept of postmemory and how it affects the lives of the people of Cambodia.

Austin MacDonald '18 (Art – Illustration, SFA)

Sequentially Cut: A Collaged Graphic Narrative

Mentor: Rossitza Skortcheva Donesky, Art & Art History, SFA

- Austin will create a multifaceted exhibition that incorporates original cut paper illustrations that will be photographed and digitally formatted into comic book pages, printed comic booklets, and a guided digital component.

Niccolo Meniconi '20 (Engineering, ENG; Music, SFA)

Prototyping a Visual Impairment Aid

Mentor: John Chandy, Electrical & Computer Engineering, ENG

- Niccolo will design and build a prototype mechanism that helps visually challenged walkers navigate a course without the aid of a guide.

Jacqueline Ose '18 (Secondary Biology Education, ED; Biological Sciences, CLAS)

Effect of Advanced Placement Incentive Programs in Connecticut High Schools

Mentor: Morgaen Donaldson, Educational Leadership, ED

- Jacqueline will evaluate the effects of Advanced Placement incentive programs instilled in Connecticut high schools to understand the impact this monetary program has had on students, teachers, and schools.

Mary Szarkowicz '19 (Political Science, CLAS; Accounting, BUS)

Female Genital Mutilation in the U.S.: Legal Framework

Mentor: Virginia Hettinger, Political Science, CLAS

- Mary will investigate the legal framework surrounding female genital mutilation in the U.S., including an investigation into existing and proposed state laws, as well as an analysis of the legislative experience of those who have passed anti-female genital mutilation laws.

Katrina Turick '18 (Cognitive Science, CLAS; Psychological Sciences, CLAS)

The Effect of Idiomatic Language in the Processing of Events

Mentor: Gerry Altmann, Psychological Sciences, CLAS

- Katrina will utilize a self-paced reading task to look at whether there is competition between two object states when the “object” in the first of two sentences is part of an idiom. Her goal is to contribute to the literature about object state representation and figurative language.

Raven Vella '20 (Molecular & Cell Biology, CLAS)

Development of Molecular Probes to Dissect the Role of Clathrin in Mitosis

Mentor: Charles Giardina, Molecular & Cell Biology, CLAS

- Using affinity chromatography, fluorescent polarization, and x-ray crystallography, Raven aims to investigate the role of clathrin in mitosis, particularly clathrin binding patterns with novel compound MJB6.

Savannah-Nicole Villalba '19 (Sociology, CLAS; Political Science, CLAS)

Waterbury, CT Food Security Inventory

Mentor: Andrea Voyer, Sociology, CLAS

- Savannah-Nicole will compile a food security inventory for Waterbury, CT. She will rate food retailers using a healthy food checklist, map Waterbury's food resources, and examine the relationship between food availability and the city's demographics using census data.

Heather Xu '19 (Ecology & Evolutionary Biology, CLAS)

Alfonsina Storni in English

Mentor: Peter Constantine, Literatures, Cultures, and Languages, CLAS

- Heather will translate a collection of poems by the Argentine poet Alfonsina Storni from Spanish into English for a general American audience.

Julian Yuliawan '18 (Individualized – Music Entrepreneurship, CLAS)

Big Dreams & Good Music

Mentor: Jeffrey Ogbar, History, CLAS

- Julian will incorporate original pieces of music into a collective project titled “Big Dreams & Good Music.” He will share the album with the UConn community and with area high school students with the goal of inspiring others to pursue their passions and follow their dreams.

Group Projects

Peter Apicella '18 (Horticulture, CAHNR)

Jacob Griffith Gardner '18 (Horticulture, CAHNR)

Enhancing Breeding Efforts through Fruit Quality Analysis of Largest North American Aronia Collection

Mentor: Mark Brand, Plant Science, CAHNR

- Peter and Jacob will direct breeding efforts of *Aronia* – a fruit-bearing shrub – by providing metrics of fruit sugar content and composition for wild and cultivated genotypes represented in the UConn collection. Their research will inform efforts to produce more palatable and appetizing *Aronia* berries.

Katherine Bell '19 (Environmental Science, CLAS)

Kelsey Witik '18 (Environmental Science, CAHNR)

The Effects of Road Salt Pollution on Soils and Tree Health

Mentors: John Volin & Ashley Helton, Natural Resources & Economics, CAHNR

- Katherine and Kelsey will examine the effects of de-icing salt on the concentrations of ions in soils over time, as well as the effects of these changing concentrations on the growth and accumulation of ions in sugar maples, *Acer saccharum*, and trees-of-heaven, *Ailanthus altissima*.

Abigail Kwiat '20 (Marine Sciences, CLAS)

Annalee Mears '20 (Marine Sciences, CLAS)

UConn Avery Point Rain Garden Project

Mentors: Syma Ebbin, Agricultural & Resource Economics, CLAS; Christine Green, Biology, CLAS

- Abigail and Annalee will lead the UConn Avery Point EcoHusky Club in creating a rain garden to prevent stormwater from entering the surrounding marine environment, reducing flooding events, and in educating individuals about nonpoint source pollution.

The UConn IDEA Grant program awards funding to support self-designed projects including artistic endeavors, community service initiatives, entrepreneurial ventures, research projects, 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>.