

OFFICE OF UNDERGRADUATE RESEARCH

ANNUAL REPORT 2018-19



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OFFICE OF UNDERGRADUATE RESEARCH ANNUAL REPORT 2018-19

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2018-19 AT-A-GLANCE STATISTICS

RESEARCH OPPORTUNITIES DATABASE

113 OPPORTUNITIES POSTED

UNDERGRADUATE RESEARCH ADVISING

279 ADVISING APPOINTMENTS

SMALL & TRAVEL GRANTS

32 Small Grants

68 Travel Grants

100 GRANTS AWARDED

UNDERGRADUATE RESEARCH OPPORTUNITIES PROGRAM (UROP) SCHOLARS

| | | |
|-------------|-----|-------------------|
| Fall 2018 | 203 | /223 applications |
| Spring 2019 | 265 | /324 applications |
| Summer 2019 | 120 | /153 applications |
| | 588 | TOTAL SCHOLARS |

SUMMER PROGRAM FOR UNDERGRADUATE RESEARCH (SPUR) SCHOLARS

38 SUMMER 2019 PARTICIPANTS

UNDERGRADUATE RESEARCH EDUCATION SERIES (URES) ATTENDEES

| | | |
|-------------|-------|----------------|
| Summer 2018 | 538 | at 11 events |
| Fall 2018 | 561 | at 14 events |
| Spring 2019 | 556 | at 15 events |
| | 1,655 | URES ATTENDEES |

UNDERGRADUATE RESEARCH SYMPOSIUM (URS) PRESENTATIONS

42 Oral Presentations

478 Poster Presentations

520 PRESENTATIONS



UTAH CONFERENCE ON UNDERGRADUATE RESEARCH (UCUR) & NATIONAL CONFERENCE ON UNDERGRADUATE RESEARCH (NCUR) PRESENTERS

38 UCUR Presenters

9 NCUR Presenters

47 UCUR & NCUR PRESENTERS

RESEARCH ON CAPITOL HILL (ROCH) PRESENTERS

26 CAPITOL HILL PRESENTERS

UNDERGRADUATE RESEARCH JOURNAL (URJ) AUTHORS

170 STUDENT AUTHORS

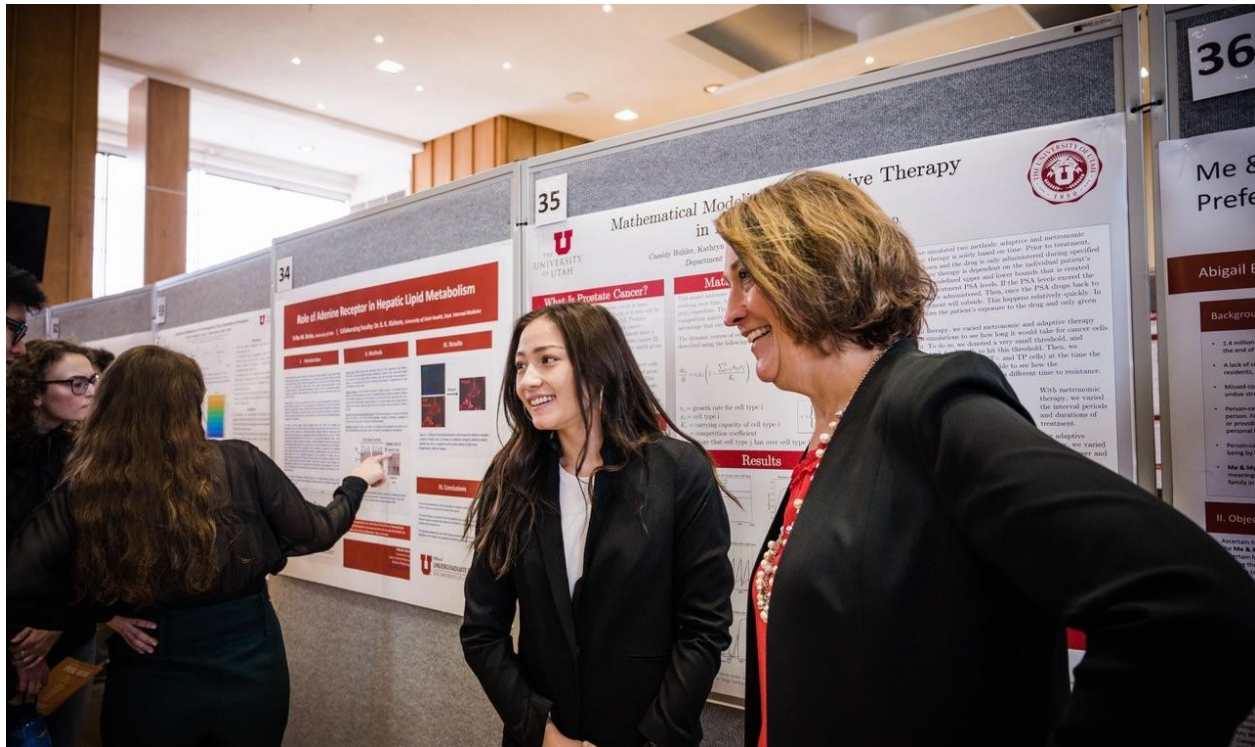
UNDERGRADUATE RESEARCH SCHOLAR DESIGNATION (URSD) RECIPIENTS

16 Summer 2018

11 Fall 2018

137 Spring 2019

164 URSD RECIPIENTS



WHY UNDERGRADUATE RESEARCH?

A thriving undergraduate research culture benefits:

STUDENTS

When we involve our undergraduate students in research, we demonstrate that we view them as colleagues in our pursuit of knowledge. Involvement in research can give students a sense of belonging, with their work forming a physical and/or intellectual home within the University. This is especially important at large institutions, as students crave an experience that is personal and allows them to work closely with faculty and other members of the academic community. Undergraduate research opportunities thus leverage some of our greatest assets as a Research I institution to the benefit of the student experience. In addition, we know that the experience of undergraduate research with a faculty mentor is associated with student retention and persistence to graduation.

FACULTY & SCHOLARSHIP

The faculty experience is also enriched by research mentorship and collaboration with undergraduate students. Our undergraduate students bring new perspectives and enthusiasm for the work and they are the future of our fields. By investing in our students, we are investing in the next generation of scholars.

OUR COMMUNITY & SOCIETY

Through research, students learn to navigate the nuances inherent to serious scholarly investigation and to interpret data responsibly and within a context. By collaborating with our students, we welcome students “into the fold” of the scholarly community and a reflective and critical-thinking public contributes positively to the long-term health of our community.

CONTRIBUTIONS TO THE COMMON GOOD

Our office contributes to the primary goals of Undergraduate Studies as follows:

Every student belongs to a learning community.

We were responsible for the Undergraduate Research Living and Learning Community. The Living and Learning Community helped initiate the feeling of belonging to the scholarly community by providing incoming students with a structured living environment and additional opportunities and resources to explore research at the University. It helped support students' self-identification as interested and engaged students and members of society and thereby reinforced their participation in the intellectual community at the University and society at large.



Every student has a deeply engaged learning experience.

Our programs facilitate and promote student involvement in deeply engaged learning experiences. We provide support and guidance to undergraduate student researchers through every phase of the experience: discovery, research dissemination, reflection, and recognition.



Every student has a Plan to Finish and is supported by student success advocates, mentors, and advisors.

Our Undergraduate Research Advisors are an available resource for students throughout the entire research process. By providing support and guidance throughout the students' involvement with our programs and by encouraging quality mentoring from faculty mentors, our office supports students' research and overall academic achievement. This in turn supports students' accomplishment of their Plan to Finish and bolsters retention and graduation rates.



My undergraduate research experience has fundamentally changed how I interact with the world. It has helped me develop deep critical thinking skills, and it has allowed me to meet many amazing colleagues, friends, and mentors who have helped me along this path.

— UROP Scholar

SUMMARY OF ACCOMPLISHMENTS

Expanded and enhanced summer program partnership.

This year, the partnership, which includes the Research Experiences for Undergraduates in the departments of Chemistry and Physics & Astronomy, the Native American Summer Research Internship in the School of Medicine, and the Summer Program for Undergraduate Research in OUR, was joined by the Huntsman Cancer Institute's PathMaker Cancer Research Program. Together, the partnership supported more than 90 students in summer 2018. Program coordinators collaborate to offer events that complement and enhance participants' summer research experiences, and create a community of scholars among the participants. The summer closes with the Summer Symposium.



Created Undergraduate Research Leader IRB Specialist position.

The goals of this collaboration between the OUR and the IRB are to:

1. provide students with professional development opportunities in collaboration with the IRB, including access to IRB onboarding, participation in IRB board activities, and campus education about research ethics and the IRB
2. provide scaffolded, on-going educational opportunities for students through which they gain experience and mentorship in a regulatory setting, including developing an increased understanding of research ethics and compliance
3. provide opportunity and incentive for students to be engaged with their campus IRB and research community through outreach and official service to the IRB

The pilot year of this collaboration has been so successful that the IRB has agreed to share the costs of its continuation in FY2020!



Beside showing me the technical aspects of research, I was exposed to a great community. From my lab group hike, to discussing graduate school with lab members, to joking with my mentor, and all the great connection with all the other students and mentors in the SPUR program, I was exposed to so many positive people. These people inspired me to think about the possibility of graduate school, different job prospects, and giving me advice on school and class work.

— SPUR Participant



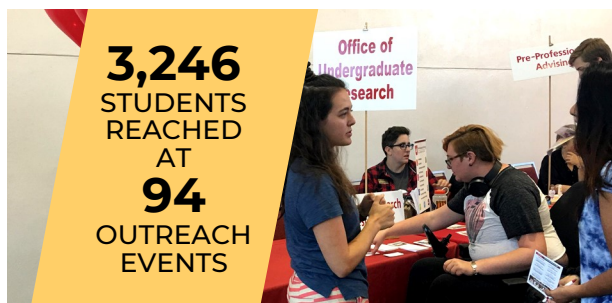
“

When I first started looking for research opportunities, I wasn't really sure where to start. I came across a UROP announcement, and ended up finding a mentor in a field I didn't know I was interested in.

— UROP Scholar

CAMPUS OUTREACH PARTNERS

American Chemical Society / Anthropology / Architecture + Planning / Bioengineering / Biological Sciences / Block U / Bridge Advisors / Chemistry / Civil & Environmental Engineering / Communication / CTLE / Electrical & Computer Engineering / Engineering LEAP / Ethnic Studies / Film & Media Arts / Fine Arts / History / Honors College / Humanities Scholars / Innovation Scholars / Learning Abroad / Linguistics / Major Expo / Materials Science & Engineering / Mechanical Engineering / Middle East Studies / Music / Nursing / Orientation & Transition / Philosophy / Physical Therapy & Athletic Training / Physics & Astronomy / Political Science / Pre-Health / Pre-Med / Psi Chi / Psychology / Science / Salt Lake Community College / Social Work / Sociology / Theatre / TRiO



OUTREACH

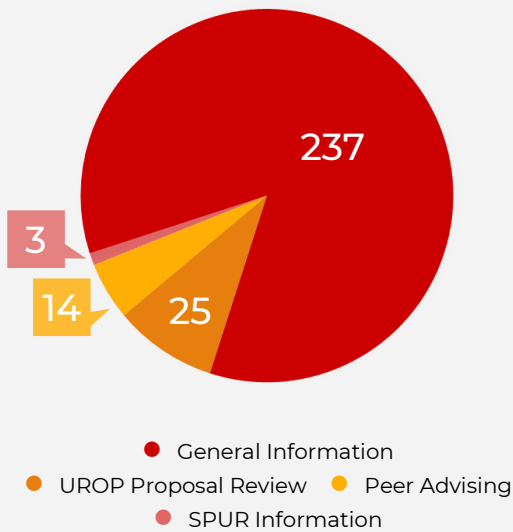
We engage in many student outreach activities throughout the year with the goal of increasing participation in undergraduate research. Our student outreach activities include tabling, information sessions, in-class presentations, and presentations to student organizations.

Through our outreach activities, we hope to make students more aware of the multitude of research opportunities available to them, the benefits of participating in undergraduate research, and help them get started finding a fulfilling research experience.

We also maintain the online Research Opportunities Database, which informs students of ways in which they can get involved in undergraduate research at the U.



ADVISING APPOINTMENTS



UNDERGRADUATE RESEARCH ADVISING

We provide comprehensive advising for students throughout the entire undergraduate research process. Advising is intended to provide a supportive environment for the student to become involved with research and to prepare the student for and guide the student through the many processes that undergraduate research will include, promoting a deeply engaged and high quality research experience. With our support, the student will be prepared to pursue further research opportunities and careers.

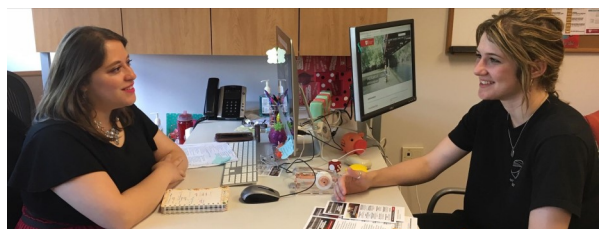


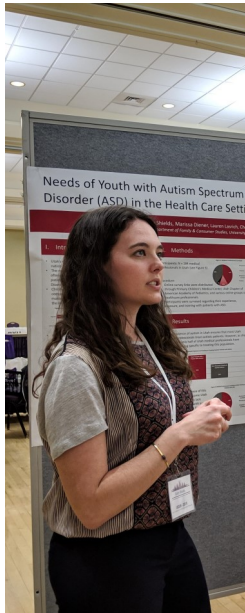
279
TOTAL ADVISING APPOINTMENTS



When I first transferred to the U, becoming involved in research as an undergraduate was one of my top goals, but I was unsure about how to get the process going. The OUR is a phenomenal resource. From my initial advising appointment with Stephanie, to having Rachel as one of my mentors, to the URES, to having the opportunity to work with Shannon on a project through UROP, the OUR has made getting involved with research as an undergraduate easy, fun, and a transformative experience.

— UROP Scholar



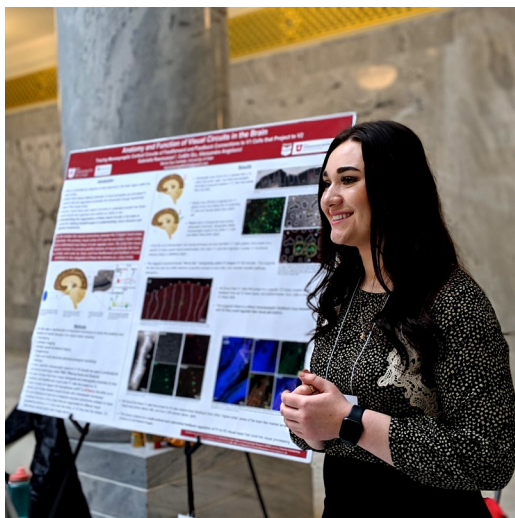


UNDERGRADUATE RESEARCH LEADERS

Each year since 2015, we select a new group of experienced undergraduate researchers to serve as ambassadors for our office.

The Undergraduate Research Leaders assist the office and promote undergraduate student research through a variety of activities:

- Office outreach and student recruitment
- Student engagement
- Peer advising
- Program development
- Small and Travel Grant reviews



“

I really appreciated the structure of the program and the opportunities for mentorship and professional development. I feel like I learned so much about the process of research and the ethical considerations in research that will serve me well in my future career(s).

— Undergraduate Researcher Leader

“

This travel grant allowed me to attend a conference in which I was able to get to know my faculty member better. I ... was able to get presentation experience and network via this poster presentation. I was also able to see how much fun being an academic can be.

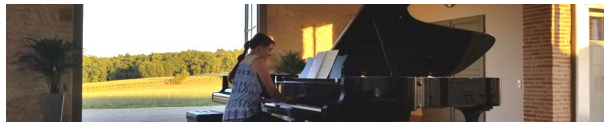
— Travel Grant Recipient



SMALL & TRAVEL GRANTS

SMALL GRANTS

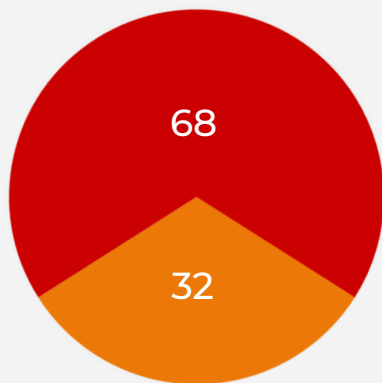
Funding from the Small Grant program (maximum \$200) can help with future purchases of research supplies, training fees, or other research costs related to the student's work.



TRAVEL GRANTS

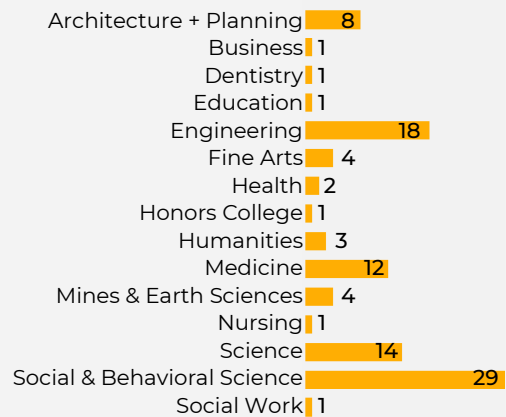
Funding from the Travel Grant program (maximum \$500) might cover expenses for future airfare, lodging, conference registration, or gas/mileage for data collection or conference attendance.

GRANTS AWARDED BY TYPE



● Travel Grants ● Small Grants

GRANTS AWARDED BY COLLEGE/SCHOOL OF MENTOR

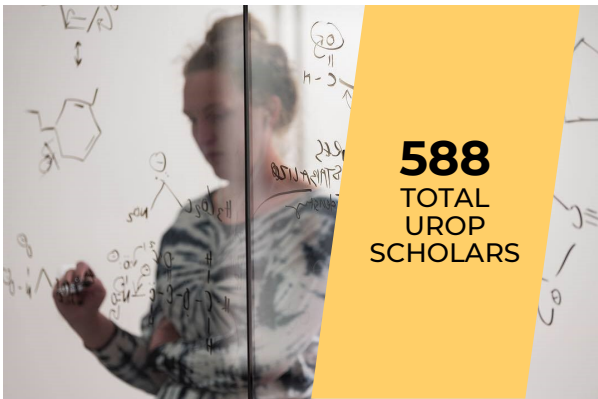




UNDERGRADUATE RESEARCH OPPORTUNITIES PROGRAM (UROP)

UROP provides undergraduate students and faculty members the opportunity to work together on research or creative projects.

UROP recipients are hired by the Office of Undergraduate Research and are paid a \$1,200.00 stipend for up to 120 hours of research or creative work during the semester of their award.



UROP AWARDS BY AWARD SEMESTER

| | | |
|-------------|-----|-------------------|
| Fall 2018 | 203 | /223 applications |
| Spring 2019 | 265 | /324 applications |
| Summer 2019 | 120 | /153 applications |



UROP AWARDS BY COLLEGE/SCHOOL OF MENTOR

| | |
|----------------------------------|-----|
| Architecture + Planning | 3 |
| Business | 10 |
| Cultural & Social Transformation | 8 |
| Dentistry | 3 |
| Education | 5 |
| Engineering | 132 |
| Fine Arts | 13 |
| Health | 29 |
| Honors College | 4 |
| Humanities | 28 |
| Medicine | 114 |
| Mines & Earth Sciences | 22 |
| Nursing | 15 |
| Pharmacy | 4 |
| Science | 66 |
| Social & Behavioral Science | 126 |
| Social Work | 6 |

UNDERGRADUATE RESEARCH SCHOLARSHIPS

CHEVRON

Chevron's University Partnership Program (UPP) has partnered with the Office of Undergraduate Research to support female students working on STEM-specific projects.

Danielle Beatty (Taylor Sparks) | *High Entropy Alloy Development And Characterization For Use In Future Renewable Energy Applications*

Leota Coyne (Mitchell Power) | *Geochemistry of Sediment from Aksumite Empire on the Tigray Plateau, Ethiopia*

Kaitlin Hall (Cynthia Furse) | *Design of an Interstitial Microwave Applicator for 3D Printing Antennas in the Body*

Marina Knysheva (Yan-Ting Shiu) | *Investigating the differences of coronary artery histology between atherosclerosis patients*

Alejandra Mendez (Matthew Mulvey) | *Evolution of Extraintestinal Pathogenic Escherichia Coli in the Gastrointestinal (GI) Tract Over Time*

Sarai Patterson (Shelley Minter) | *Design of electrode materials for improved current output of microbial fuel cells*

Bianca Ruiz-Negron (Man Hung) | *Using machine learning to predict all cause 30 days and 90 days hospital readmissions in patients with atrial fibrillation undergoing catheter ablation*

Lindsay Rupp (Rob MacLeod) | *Ventricular Pacing Depth Localization Based on Epicardial Activation Maps*

DEE

The Lawrence T. Dee and Janet T. Dee Foundation was established for the purpose of promoting charitable activities in Ogden and the surrounding area.

Marcus Blackburn (Frank Sachse) | *Using Electrical Conduction Modeling in the Heart to Investigate Mechanisms of Arrhythmogenesis*

Madison Block (William Brazelton) | *Differential Identification of Extremophiles in Layered Geophysical Environments*

Zachary Bowser (Nitin Phadnis) | *Engineering Artificial Segregation Distortion with Chromosomal Breakage*

Kathryn Glaitli (Joshua Bonkowsky) | *Creating a Zebrafish Model of Pelizaeus-Merzbacher Disease*

Nam Nguyen (Christopher Reilly) | *Roles of TRPV6 and TRPA1 in Wood Smoke Pneumotoxicity*

Caroline Ramous (John David Symons) | *Intact endothelial cell autophagy is necessary to observe training-induced vascular adaptations*

Gabriella Rasmussen (Alessandra Angelucci) | *Tracing Monosynaptic Cortical Circuits of Feedforward and Feedback Connections to V1 Cells that Project to V2*

FRANCIS FAMILY FOUNDATION

The Francis Endowment Fund recognizes outstanding undergraduate researchers in the arts, social sciences, and the humanities.

Sydney Cahoon (Melissa Schaefer) | *Laws and Regulations of the Primate Pet Trade in the United States*

Steffi Falla (Trafton Drew) | *Electrophysiological Components of Tracking Objects Through Predictable and Unpredictable Occlusion*

Chelsea Li (Douglas Grossman) | *Investigating Expression of CDKN2A (p16) and Inosine 5'-Monophosphate Dehydrogenase (IMPDH) in Human Nevus and Melanoma Cells and Tissue*

Sherry Liao (Julie Jeon) | *Comparing the Listening Effort⁸ Working Memory, and Speech Perception of School-aged Normal Hearing Listeners and Cochlear Implant Users*

Sophie McQuinn (Tiffany Love) | *The Effects of Childhood Trauma and Sex on Brain Structure*

Kira Tanghe (Jim Martin) | *Don't Overestimate the Power of the Force*

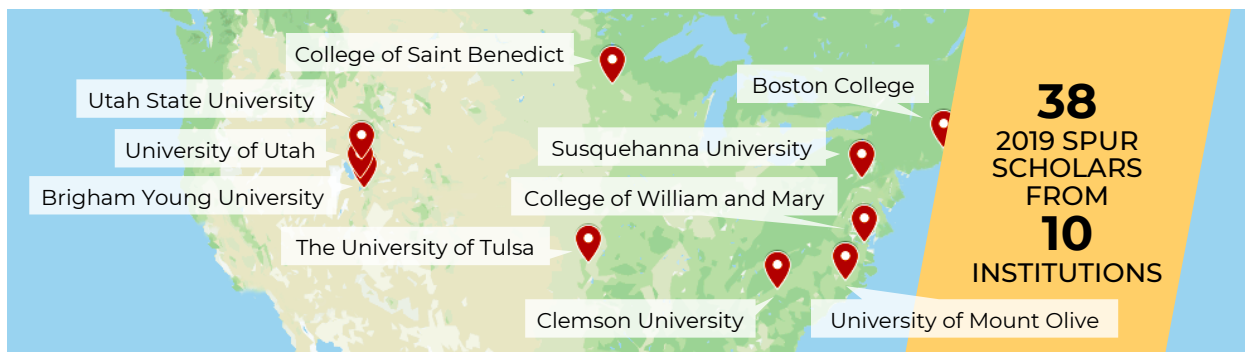
Evan Tayler (Shane Macfarlan) | *The Historical Demography of Baja California, Sur*

PARENT FUND

Undergraduate Advancement is a mutual effort by Academic and Student Affairs to provide programs that both support and retain undergraduate students at the University of Utah.

Rachel Cantrell (Ryan Looper) | *Synthesis of Tan1057-D Antibiotic Analog(s)*

Jacob Tadge (Wayne Potts) | *Effects of Infection Pooling on Virulence*



SUMMER PROGRAM FOR UNDERGRADUATE RESEARCH (SPUR)

Generously funded by the Office of the Vice President for Research, SPUR provides undergraduate researchers with an intensive 10-week research experience under the mentorship of a University of Utah faculty member.

In addition to their intensive research experience, students attend summer URES events, submit to the *Undergraduate Research Journal*, and present at the Summer Symposium.

SUMMER PROGRAM PARTNERS

Chemistry REU / Genomics Summer Research for Minorities (GSRM) Internship / HCI PathMakers / Native American Summer Research Internship (NARI) / Physics & Astronomy REU

“

This SPUR experience gave me a hands-on opportunity to apply the knowledge I've gained in classes to an actual problem. It has connected me with a mentor who will continue to be a valuable resource throughout my career. I feel like I know at least twice as much about data science now as when I entered the program. Working in my research lab has allowed me to develop sound research and technical skills. I think participating in SPUR will make me a more competitive grad school and job applicant.

— SPUR Participant



URES ATTENDANCE BY SEMESTER

| | |
|-------------|-----|
| Summer 2018 | 538 |
| Fall 2018 | 561 |
| Spring 2019 | 556 |



UNDERGRADUATE RESEARCH EDUCATION SERIES (URES)

We offer educational lectures, panels, and workshops on topics of interest to undergraduate student researchers and their faculty mentors. These events are open to all and are designed with undergraduate students in mind.

Recent topics include:

- Asking for Letters of Recommendation
- Citation Management
- Contextualizing Your Research
- Creating Effective Research Posters & Webdigitizer Workshop
- Data Management
- Discipline-Specific Writing: Images in Science
- Doing Library Research
- How to Read a Research Article
- How to Translate Your Research Into a Resume
- Imposter Syndrome
- Introduction to the Institutional Review Board
- Leveraging Your Research Experience in Industry
- Literature Reviews
- Mentorship Workshop
- Personal Statements
- Public Speaking
- Queering Research Panel
- Responsible Conduct of Research
- Research Reproducibility
- Translating Your Research to a General Audience
- Introduction to Technology & Venture Commercialization
- Writing an Abstract

RESEARCH EDUCATION PARTNERS

Anthropology / Biological Sciences / Career & Professional Development Center / Honors College / Institutional Review Board / LGBT Resource Center / Marriott Library / Materials Science & Engineering / Ophthalmology & Visual Sciences / Oncological Sciences / Philosophy / Physics & Astronomy / Spencer S. Eccles Health Sciences Library / Technology & Venture Commercialization / Theatre / Undergraduate Research Mentor Development Program / Undergraduate Studies / Writing & Rhetoric Studies



MONSON ESSAY PRIZE

The Charles H. Monson Essay Prize honors Charles H. Monson Jr., who was a distinguished member of the University Philosophy Department from 1958 to 1974. Professor Monson earned his Bachelor's and Master's degrees from the University of Utah and received his Ph.D. from Cornell University. During his years at the University of Utah, he served as chair of the Philosophy Department and Associate Vice President for Academic Affairs. He received the University's Distinguished Teaching Award in 1970. In his honor, an annual prize is awarded to an undergraduate student who writes an outstanding essay on a subject having to do with social change.

2019 MONSON ESSAY PRIZE RECIPIENTS

Rebecca Higham
Prof. Akiko Kamimura

*Stress Management Classes
for Uninsured
Free Clinic Patients in the
United States*

Jasmine Robinson
Prof. David Derezotes

*The Black Perspective:
Historical and Structural
Violence to the Black
Community*



It was such an honor to be a Monson Prize recipient! Not only did the prize help me realize the great impact of the research I was engaged in, but it has allowed me to continue my education by pursuing a Masters in Public Health.

— Rebecca Higham

Receiving this prize has allowed me to realize I can make a difference and do anything I set my mind to. This prize means a lot, and the money received from the award is going to be used toward paying for graduate school. I am humbled to have received a prize related to social change, because I believe all of us need to do some small part to help progress our world forward.

— Jasmine Robinson



OUTSTANDING UNDERGRADUATE RESEARCHER AWARD (OURA)

In 2015, we introduced the Outstanding Undergraduate Researcher Award. We are delighted to recognize an outstanding undergraduate researcher from each college/school at the University of Utah. Faculty mentors are invited to nominate students and awardees are selected by committee. The criteria for the Outstanding Undergraduate Researcher Award are:

- Record of sustained commitment to developing research skills and knowledge under the supervision of a faculty mentor
- Evidence of independent and critical thinking
- Active participation in research-related activities on campus
- Positive contributions to the research culture of the Department, College, and University

2019 OUTSTANDING UNDERGRADUATE RESEARCHER AWARDEES

Michael Jarzin
Prof. Sarah Hinners
ARCHITECTURE + PLANNING

Victoria Holmes
Prof. Kate Mattingly
FINE ARTS

Alexander Reifsnnyder
Prof. Krista Carlson
MINES & EARTH SCIENCES

Carly Ho
Prof. Nitin Bakshi
BUSINESS

Samira Gholami
Prof. Anandh Velayutham
HEALTH

Kristen Stucki
Prof. Gwen Latendresse
NURSING

Estefanie Aguilar Padilla
Prof. Erin Castro
CULTURAL & SOCIAL TRANSFORMATION

Camrey Tuttle
Prof. Sara Simonsen
HONORS

Zack Harmer
Prof. Eric Schmidt
PHARMACY

Yasmeen Siripathane
Prof. Annette Fleckenstein
DENTISTRY

Maya Kobe-Rundio
Prof. Robin E Jensen
HUMANITIES

Journey Bly
Prof. Leslie Knapp
SOCIAL & BEHAVIORAL SCIENCE

Erin Feeley
Prof. Erin Castro
EDUCATION

Rueben Ryan Cano
Prof. Dean Tantin
MEDICINE

Maile Marriott
Prof. Valeria Molinero
SCIENCE

Abbie Ireland
Prof. Trudy Oliver
ENGINEERING

Sadia Al-Hilo
Prof. Jeremiah Jagers
SOCIAL WORK

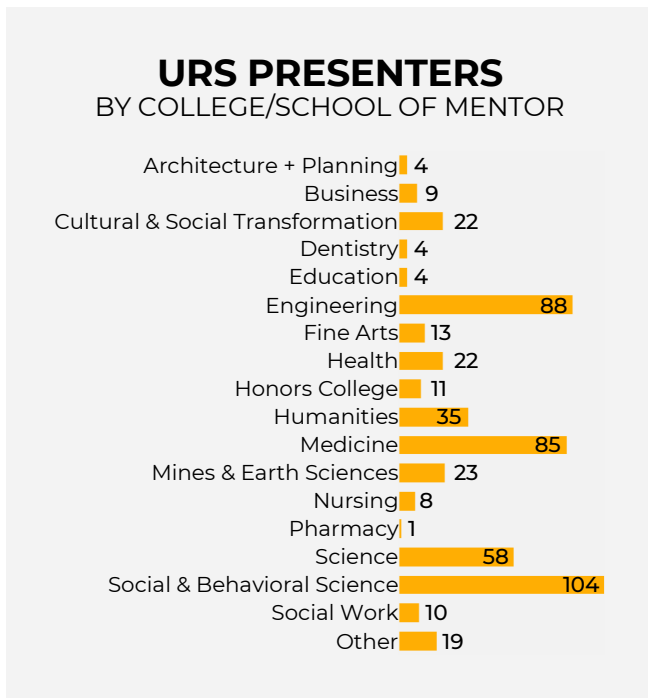


“ The undergraduate research symposium was a highlight of [my] experience. It challenged me to explain my research question, the background foundations of my work, and research findings to a laymen's audience. — UROP Scholar



UNDERGRADUATE RESEARCH SYMPOSIUM (URS)

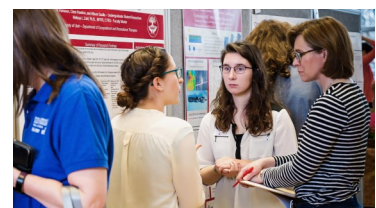
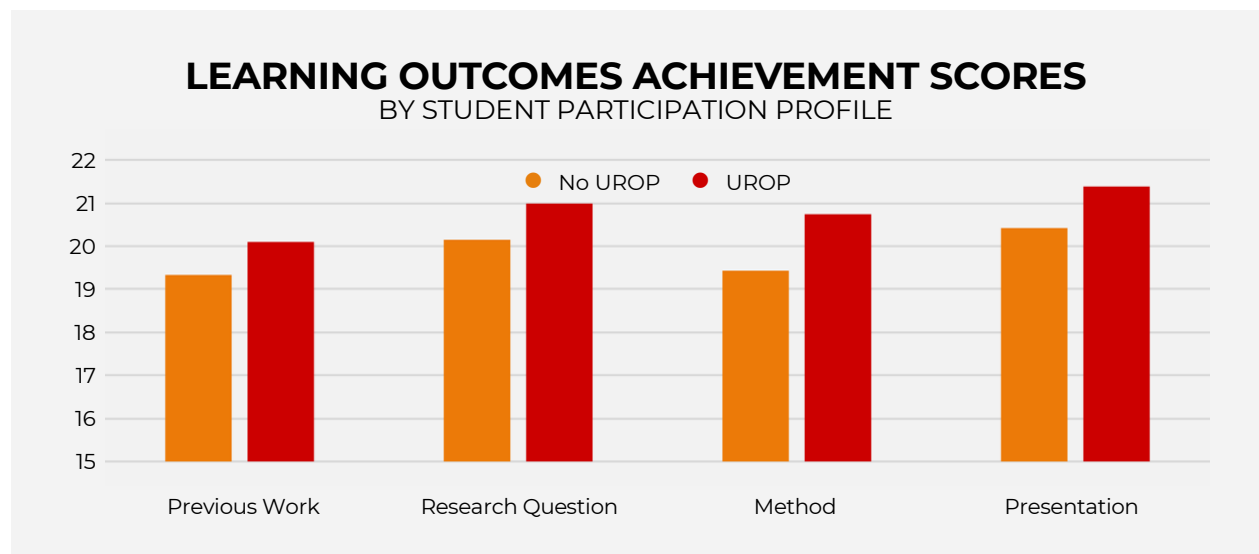
The Undergraduate Research Symposium (URS) provides an opportunity for students to present their work in a scholarly setting to students, faculty, and other members of the University of Utah community. Undergraduate students from all disciplines are invited to present their research and creative work.

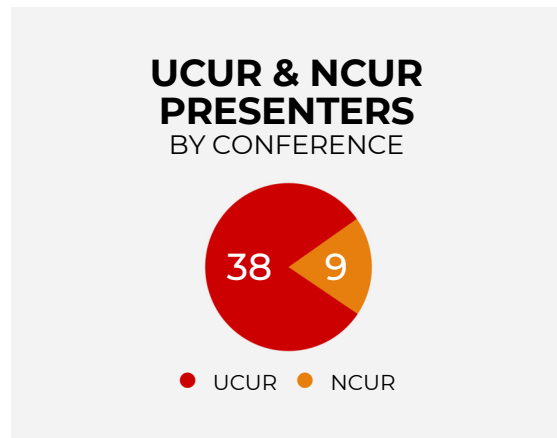


UNDERGRADUATE RESEARCH LEARNING OUTCOMES ASSESSMENT

Participation in deeply engaged learning experiences, of which undergraduate research is a signature example, is known to positively impact various metrics of student success. Indeed, at the University of Utah, participation in just one of the semester-long research programs offered by the Office of Undergraduate Research (OUR), results in a 2.5% lift for Fall-to-Spring semester persistence.

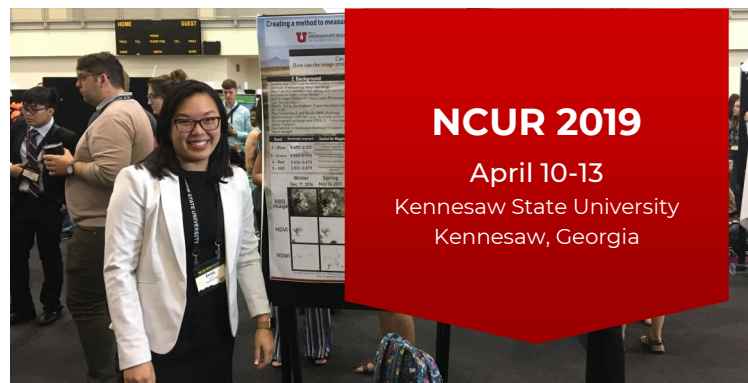
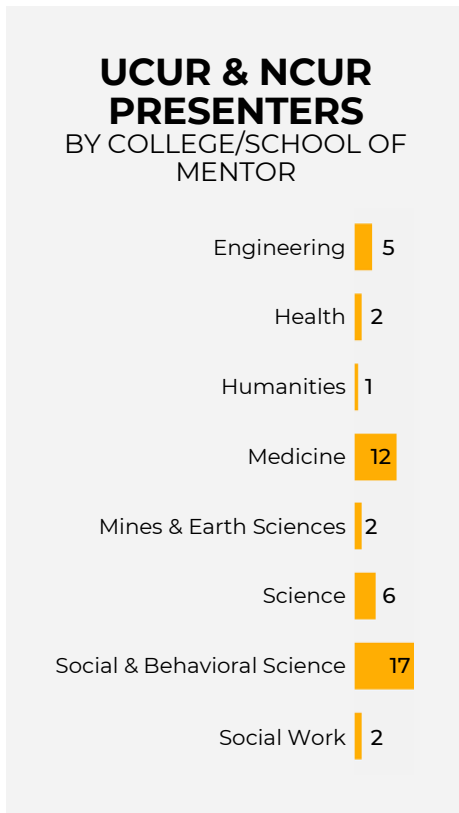
In addition to global metrics of student success, we are committed to understanding the extent to which students achieve program-specific learning outcomes. The OUR has developed a set of seven undergraduate research learning outcomes that address the traditions of research and mentoring in the wide range of disciplines on our campus, and we assess students' achievement on these outcomes in the context of our annual institution-wide Undergraduate Research Symposium. We employ a poster presentation evaluation rubric that aligns with these outcomes, and we deploy graduate student, post-doc, and faculty attendees of the Symposium as ad hoc raters, with procedures in place to avoid conflicts of interest and allow for rater normalization. Since April 2018, we have collected over 2,700 rubrics evaluating 803 undergraduate student research posters by 436 raters. The data we have collected allow us to evaluate the efficacy of undergraduate research programming on our campus by, for example, comparing learning outcomes achievement scores for students with varying program participation profiles. We have found that students participating in UROP exhibit significantly higher achievement on these learning outcomes than students who do not.





UTAH CONFERENCE ON UNDERGRADUATE RESEARCH (UCUR) & NATIONAL CONFERENCE ON UNDERGRADUATE RESEARCH (NCUR)

Each year, the Office of Undergraduate Research facilitates attendance at UCUR and NCUR by organizing abstract submissions and supporting travel to the conferences. These conferences provide an opportunity for students to present their work to peers throughout the state and country.





ROCH 2019
 Tuesday, March 5
 Utah State Capitol



Undergraduate students are involved in research in a range of fields, and this is a wonderful opportunity to talk to the people who make decisions which directly impact the citizens of Utah about that research.

— *Research on Capitol Hill Presenter*

RESEARCH ON CAPITOL HILL (ROCH)

The Office of the Vice President for Research, the Office of Government Relations, and the Office of Undergraduate Research select students each year to exhibit their work via posters to Utah state legislators. This event demonstrates the importance of undergraduate research and creative work from the top two research universities in the state: University of Utah and Utah State University.

UCUR & NCUR PRESENTERS BY COLLEGE/SCHOOL OF MENTOR

| | |
|-----------------------------|---|
| Business | 1 |
| Education | 1 |
| Engineering | 3 |
| Fine Arts | 1 |
| Health | 3 |
| Humanities | 1 |
| Medicine | 6 |
| Nursing | 2 |
| Pharmacy | 1 |
| Science | 3 |
| Social & Behavioral Science | 4 |

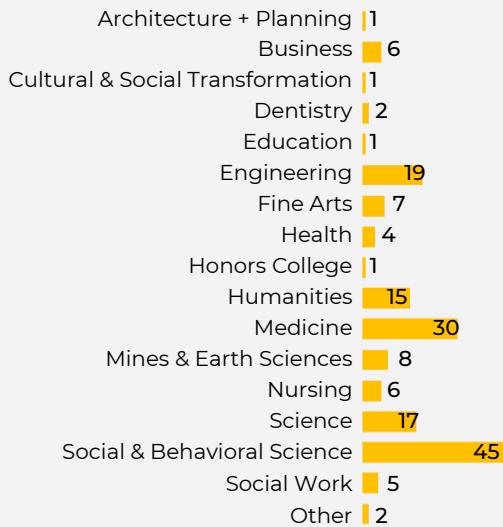


26
 ROCH
 PRESENTERS



View the 2019 Undergraduate Research Journal at our.utah.edu/urj2019

URJ STUDENT AUTHORS BY COLLEGE/SCHOOL OF MENTOR



UNDERGRADUATE RESEARCH JOURNAL

The Undergraduate Research Journal's primary mission is to make more visible the rich and diverse student contributions to research and creative work at the University of Utah. All undergraduate students involved in research at the University of Utah are strongly encouraged to submit summaries of their work for publication in this journal.

Starting in 2015, the Journal is published online thanks to an initial partnership with the Marriott Library.



I highly recommend any student to take part in at least some sort of research, but I believe that writing a thesis, presenting at symposiums/conferences, and submitting research for publications is an incredible experience that has helped me to further develop my skills as a scholar and a researcher.

— URSD Recipient



UNDERGRADUATE RESEARCH SCHOLAR DESIGNATION (URSD)

The Undergraduate Research Scholar Designation (URSD) recognizes a student's commitment to their development as a researcher during their undergraduate career. The URSD appears in the awards section of the transcripts of graduating students. URSD recipients receive white research cords from the Office of Undergraduate Research to wear at convocation and commencement.

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My research experience has been unlike anything else during my undergraduate career. The hands on nature of research has allowed me to apply what I am learning in my classes to real life situations. I have gained innumerable skills from participating in the entire research process. Personally, I believe my involvement in research is giving me valuable perspective, knowledge and skills for my future career.

— URSD Recipient



URSD RECIPIENTS BY GRADUATION SEMESTER

| | |
|-------------|-----|
| Summer 2018 | 16 |
| Fall 2018 | 11 |
| Spring 2019 | 137 |

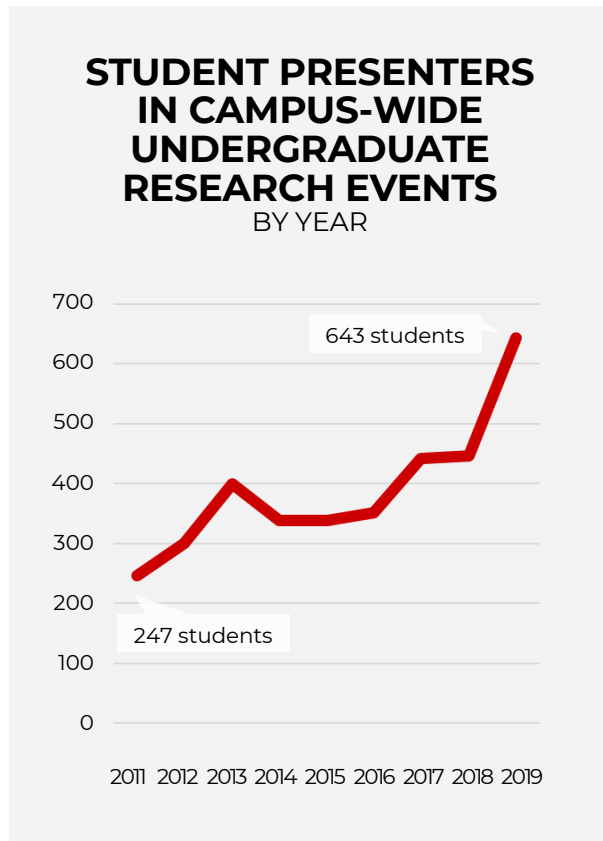




GOALS FOR 2019-20

Continue to increase participation in the Undergraduate Research Symposium

The figure below illustrates the enormous growth in participation in OUR-hosted campus-wide undergraduate research events, where students present their research to the campus community — from 247 students in AY 2010-11 to 643 students in AY 2018-19! Much of this increase is the result of unprecedented growth in the numbers of students presenting at the Undergraduate Research Symposium. We will continue to promote this event across campus in FY 2019-20.



Launch first-year research experience courses pilot

To increase access to undergraduate research opportunities and to more effectively harness the beneficial effects of involvement in undergraduate research, we will pursue the development of first-year (freshman or transfer) research exposure courses. This development will interact with the recommendations of the SVP's Task Force on Student Success and Services.

“ Participating in undergraduate research helped to solidify the theoretical knowledge that I obtained over the course of my degree. The research provided a practical application, which allowed me to be creative and express my research instincts. — UROP Scholar

