

Annual Report

2022-2023

Department of BIOMEDICAL ENGINEERING
THE UNIVERSITY OF UTAH

The Effects of Transfection on the Differentiation of Stem Cells
Kaylen Lee and Tara Deans, Ph.D.
Department of Biomedical Engineering, University of Utah, Salt Lake City, Utah

Background

- Embryonic stem (ES) cells are commonly grown in vitro on a feeder layer of cells, which provide support to the cell growth.
- ES cells can have the ability to become, or differentiate into, every type of cell in the body.
- It is hypothesized that we can move away from feeder cell co-cultures by introducing an engineered plasmid to ES cells.
- The aim of this project was to evaluate how the transfection of the engineered plasmid into mouse embryonic stem cells (mESC) affects its differentiation into megakaryocytes.

Methods (cont.)

Lipofectamine Transfection

Electroporation Transfection

Results (cont.)

Flow cytometry data of the lipofectamine transfected stem cells. Live cytometry was conducted at Day 4 after transfection. Higher FITC-Area completely indicates presence of megakaryocytes.

Flow cytometry data of the electroporation transfected stem cells. Higher FITC-Area completely indicates the presence of megakaryocytes.



Office of Undergraduate Research

Learning at the Cutting Edge of Research



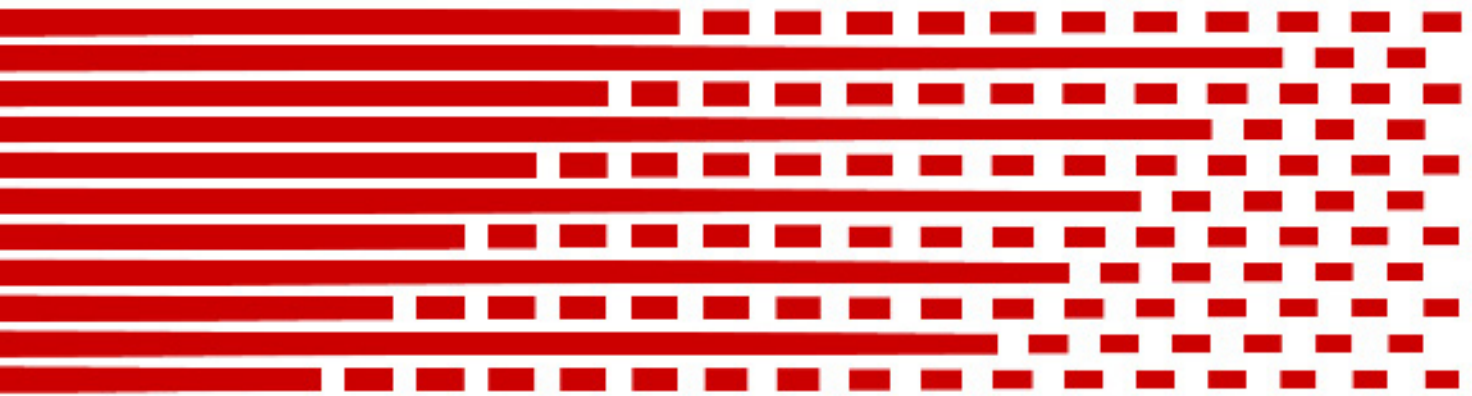
Office of Undergraduate Studies
UNDERGRADUATE RESEARCH
THE UNIVERSITY OF UTAH
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Undergraduate Studies

THE UNIVERSITY OF UTAH

From admission to graduation, the units of the Office of Undergraduate Studies at the University of Utah provide every student with an exceptional educational experience that empowers them to lead transformational lives wherever their educational and professional futures take them.



Office of Undergraduate Studies

UNDERGRADUATE RESEARCH

THE UNIVERSITY OF UTAH

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About OUR

Message from Associate Dean Annie Isabel Fukushima

If there is one way to summarize this past year of undergraduate research activities and programming at the University of Utah, it is that undergraduate research at the U is contributing to the role of higher education as a public good. Student projects contributed to addressing social inequities, resolving to solve medical problems, engaging with the science of environmental issues to those beyond this planet, to even, participating in studies that are providing engineering solutions from biological to the technological and mechanical. The research our students are contributing to as part of research teams of a couple to many, are truly exciting, innovating for our future, and solving major societal problems. Not only does undergraduate research enhance the role of the university to publics, but it also furthers our institutional mission to fostering an exceptional educational experience. As an R1 institution, the U is uniquely positioned to facilitate research opportunities with award-winning faculty and researchers. As our students graduate, they become ambassadors of the university.



A special thanks to our donors and supporters: the Office of the Vice President for Research, the Dee Foundation, the Francis Family Fund, Parent Fund, the Monson Family Fund, Roger Leland Goudie Trust, individual donors who gave during Giving Day, and the faculty, staff and students who participate in OUR's programs and activities.

It is truly inspiring to look back on our history, where we began as a program in 1987, and have since grown into a robust office that is supporting the research enterprise at the U. This annual report provides a narrative of the programs and activities from 2022 – 2023.

Annie Isabel Fukushima, Ph.D.
Associate Dean, Undergraduate Studies
Director, Office of Undergraduate Research

OUR Mission

The mission of the University of Utah Office of Undergraduate Research is to facilitate and promote undergraduate student-faculty collaborative research and creative works in all disciplines throughout the University of Utah campus through equitable programming, diverse representation, and social justice.

OUR Team

Annie Isabel Fukushima, Ph.D.
Associate Dean, Undergraduate Studies
Director, Office of Undergraduate Research

Cindy Greaves
Associate Director

Angie Leiva
Academic Program Manager

Shelly Parker
Program Manager

Jude Ruelas
Outreach Coordinator

Data in Brief 2022-2023



611
Students
Funded

1,023 students applications for UROP,
SPUR, Scholarships, Travel and Small Grants



159
Students
Recognized

through the OUR Awards and URSD
16 mentors recognized

1,260

Student
Presenters

in URS, ROCH, UCUR, NCUR
and Sponsored Symposia



223

Students
Published

in RANGE: Undergraduate
Research Journal



4,367

Education
Series
Attendees



428

Students
received
Research
Advising

from Peer-Mentors and Staff Connections



423

Research
Mentors

Faculty and Graduate Students



4,847

People
reached
In-person



178,857

People
outreached on
Social Media



190,527

Visitors
to the
OUR Website



OUR 2023-2024 Goals

Data-Informed Decisions

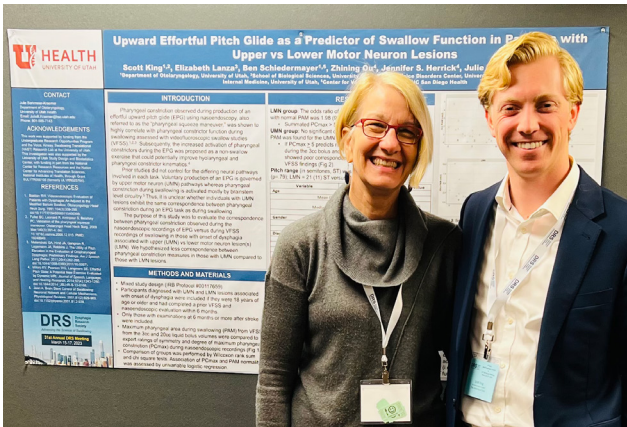
- During the 2022-2023 academic year, OUR worked with data and analytics to interpret and understand populations supported by OUR and interacting with program activities. For 2023-2024, OUR has initiated Institutional Review Board processes, and will implement a campus-wide research evaluation of undergraduate research at the University of Utah.

Grow Research Inclusion

- OUR will grow diversity in early access to undergraduate research opportunities at the University of Utah through the launch of the Early Exploration Scholars Program in Fall 2023. This program will foster earlier interest in research for students in the first 60 credits of their academics.
- OUR will continue to apply for research funding to diversify how undergraduate students are supported through external grants and donations.

Strengthen Mentoring Partnerships & Collaboration

- OUR will grow the number of grants and increase partnership support for external grants.
- OUR will create an undergraduate research advisory council.



OBJECTIVE 01

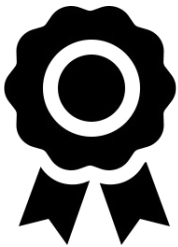
Enhancing the Teaching, Learning, Research, and Innovation Environments



Grants and Awards

- Undergraduate Research Opportunities Program (UROP)
- Summer Program for Undergraduate Research (SPUR)
- Small and Travel Grants
- Scholarships

OUR enhances the teaching, learning, research, and innovation environments by funding undergraduate researchers to work with a faculty mentor. During the 2022-2023 academic year, OUR funded 611 undergraduate researchers at the University of Utah.



Recognition of Undergraduate Research Excellence

- Outstanding Undergraduate Researcher Awards (OURA) Ceremony
- Undergraduate Research Scholar Designation

In pursuit of excellence, we recognize outstanding undergraduate researchers during an annual awards ceremony that comprises of recognizing the Outstanding Undergraduate Researcher Awardees, Outstanding Undergraduate Research Mentor Awardees, and scholars funded by OUR in partnership with our donors of the Dee Foundation, the Francis Family Fund, and the Parent Fund. 140 students earned an Undergraduate Research Scholar Designation in their transcript.

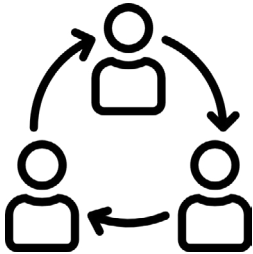


Peer Mentoring and Staff Support

- Funding Fridays
- IRB Lab
- Research Advising Appointments

OUR provides research advising to students at all stages of their research journey with 428 students receiving peer and staff research advising.

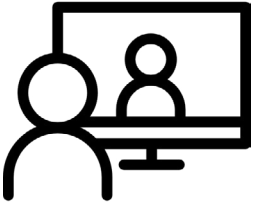
OBJECTIVE 01 - *Continued* **Enhancing the Teaching, Learning, Research, and Innovation Environments**



Support Faculty and Student Collaborations

- Summer Program Partnerships
- OUR Program Partners
- Faculty Affiliates

Central to OUR activities and programming: supporting faculty and student partnerships.



Research Education

- Undergraduate Research Education Series (URES)

The learning environment is further enhanced with educational opportunities through the Undergraduate Research Education Series where 4,367 students attended the OUR education series (2022-2023).



Dissemination of Knowledge Through Publication and Presentations

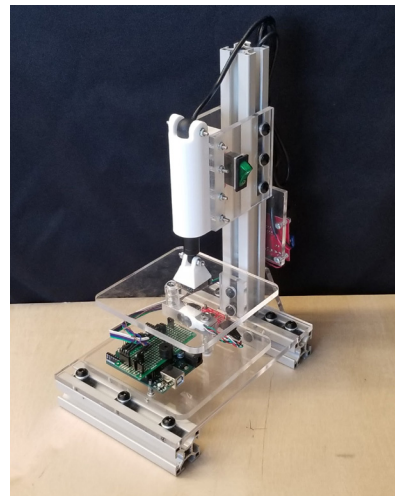
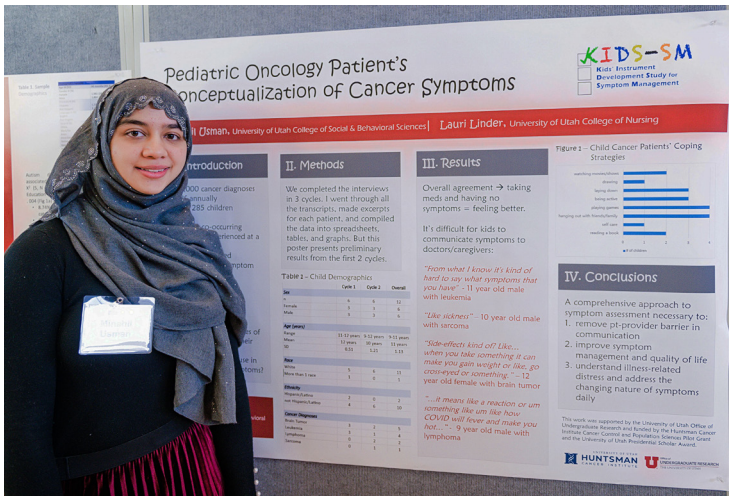
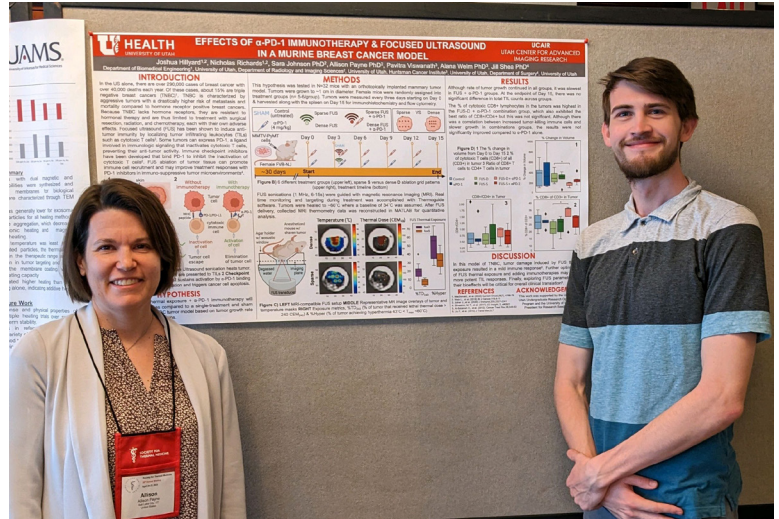
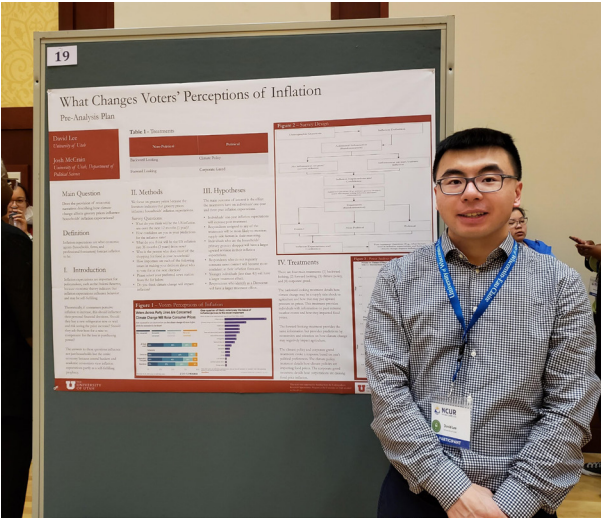
- Undergraduate Research Symposia (URS)
- Research on Capitol Hill (ROCH)
- Utah Conference on Undergraduate Research (UCUR)
- National Conference on Undergraduate Research (NCUR)
- Sponsored Conferences
- Range: Undergraduate Research Journal

OUR fosters research innovation and dissemination through facilitating and supporting publication and student presentations. The office organizes an Undergraduate Research Symposium every semester (Summer 2022-in-person; Fall 2022-virtual; Spring 2023-virtual) and collaborates with the U's Government & Relations office and Utah State University to host Research Day on Capitol Hill. OUR also organized the statewide Utah Conference on Undergraduate Research (UCUR) and supported students with presentations at the National Conference on Undergraduate Research (NCUR). This year 1,260 students were supported with presenting their research and 223 entries were published in the *RANGE: Undergraduate Research Journal* including abstracts, articles, and research reflections.

Grants and Awards

Between 2022 and 2023, the Office of Undergraduate Research awarded 611 awards and scholarships to student researchers with Undergraduate Research Opportunity Program (UROP), Summer Program for Undergraduate Research (SPUR), travel and small grants, and scholarships.

Undergraduate researchers funded by OUR represent a diversity of majors. These majors represent research fostering civic responsibility and quality of life for Utahns, including STEM fields, health and medicine research, research on global issues, research on equity and diversity, and research in environmental studies.



Undergraduate Research Opportunity Program (UROP)

Undergraduate Research Opportunity Programs have a long history in the US, with the first UROP established at the Massachusetts Institute of Technology (MIT) in 1969¹. A model program, UROPs may be found across the US including at the University of Utah which was established in 1987. UROP student researchers work with faculty mentors, where 16 colleges participate in mentoring scholars. In 2022-2023, 500 UROP scholars received a \$1,200 stipend for their research experience. UROP scholars experienced programming wrapped around them that included OUR's education series (workshops and educational content) and opportunities to present their findings. UROP scholars successfully met OUR learning objectives by working collaboratively, identifying appropriate methodologies, utilizing previous research, effectively presenting research, articulating research questions, meeting discipline standards for responsible research and reflecting on research. We are proud to share the positive outcomes of UROP scholars. For 2022-2023, OUR grew the number of UROP scholars awarded by 3.5%.

500
UROP
SCHOLARS

583 UROP applicants

"I think participating in undergraduate research has given me the chance to hone my writing skills, learn more about data analysis techniques, and revealed that no matter how outlined your timeline may be going into a project, it is natural to have other things come up in life--and with the project itself--that could slow things down, or even speed things up. After having almost completed a semester of UROP, I have been confirmed in my interest in education, medicine, and being an advocate for diversity, equity and inclusion in my future occupation."

- UROP Scholar, Senior
Health, Society and Policy

"My research experience has given me firsthand experience in the field I've been pursuing during my undergrad so far, which has only emboldened my decision to continue working towards it since I know how much I enjoy it now. I've gotten to learn things that I wouldn't have thought to seek out otherwise, and delved into topics that I hadn't considered before. Experiencing the thrill of working towards potentially discovering something new about the universe has been a joy like no other, and I'll do it for as long as I can."

- UROP Scholar, Junior
Physics, Geoscience

"Overall, I feel significantly more confident in my general organizational abilities. My goal of pursuing research which carves out space for disabled game developers and smooths out the transition from student to industry professional has never felt more concrete. My experience with UROP has bridged a gap I have worried about since I began my undergraduate career: the gap between conceptualizing and realizing dreams."

- UROP Scholar, Senior
Games

¹ For more information, visit <http://www.cur.org/assets/1/7/CURQOTWV331.pdf>

UROP Successful Learning Outcomes

OUR's UROP is successful because of the learning outcomes demonstrated by participants. This data is collected every semester in a close-out report submitted by participants and their faculty mentors.

UROP SCHOLARS AGREE because of the research experiences, they can:

94%

Work collaboratively and effectively communicate with other researchers

98%

Identify appropriate methodologies

98%

Identify & utilize previous research

85%

Effectively present research

97%

Articulate a research question or creative objective

97%

Meet the field's standard for responsible conduct in research

97%

Reflect on research and make future plans because of this experience

431

Students completed the Closing Report

UROP MENTORS AGREE because of the research experiences, their mentees are able to:

98%

Work collaboratively and effectively communicate with other researchers

98%

Identify appropriate methodologies

98%

Identify & utilize previous research

82%

Effectively present research

98%

Articulate a research question or creative objective

98%

Meet the field's standard for responsible conduct in research

96%

Reflect on research and make future plans based on their experiences

83

Mentors completed the Closing Report

Summer Program for Undergraduate Research (SPUR)

Summer Program for Undergraduate Research provides students with competitive summer research opportunities where students are paid for ten weeks to immerse into fulltime summer experiences with a faculty mentor. Students come from across the United States. Students participating in SPUR successfully acquire OUR learning objectives where they are able to articulate a research question or creative objective; identify appropriate methodologies; identify & utilize previous research; meet the fields standard for responsible conduct in research; work collaboratively with other researchers; effectively present research and make future plans because of this experience. To successfully support Summer Programs, OUR collaborates with campus partners.

Summer undergraduate research experiences are shown to have a positive impact on student identity in academics and positive outcomes for retention and persistence toward graduation.² Additionally, summer undergraduate research experience sustains or confirms postgraduation decisions to go to graduate school, supporting a pipeline of undergraduate to graduate school.

38

SPUR SCHOLARS

330 SPUR applicants

13

Summer Program Partners

- The Beckman Scholars Program
- Chemistry Research Experience for Undergraduates (REU)
- Genomics Summer Research for Minorities (GSRM) Internship
- Native American Summer Research Internship (NARI)
- PathMaker Scholars Cancer Research Program
- Pathology Summer Program
- Physics & Astronomy REU
- Research Experiences to Advance the Careers of HBCU Undergraduates at the University of Utah (REACH U2) in Health Disparities Research
- Research Experience in ALpine Meteorology (REALM) REU
- Research Experience in Utah for Sustainable Materials Engineering (ReUSE) REU
- RUUTE Summer Undergraduate Research Experience (SURE)
- Summer Program for Undergraduate Research (SPUR)
- Summer Undergraduate Research Internship in Pharmaceuticals and Drug Delivery

196

Students

161

Faculty

"My experience in the SPUR program has felt very well-rounded and has taught me a lot about how to conduct research and how to relay my findings to peers and professionals inside and outside of my field of study in an effective manner. I enjoyed learning from different speakers in the URES sessions and felt that it broadened my perspectives on various topics throughout the summer. I also enjoyed getting to know the other SPUR students and learn about the wide variety of research projects they were participating in. My goals in the future are to attend medical school and become a physician practicing both patient care and conducting research. This program has not only allowed me to enhance my skills in a laboratory setting, but also helped me grow into a more effective communicator, team-player, and presenter."

– SPUR Scholar, Biochemistry

² Morales, D.X., Grineski, S.E., & Collins, T.W. (2021). Effects of mentoring relationship heterogeneity on student outcomes in summer undergraduate research. *Studies in Higher Education* 46(3); 423 – 436.

³ Lopatto, D. 2017. Survey of Undergraduate Research Experiences (SURE): First Findings *Cell Biology Education* 3(4): <https://www.lifescied.org/doi/full/10.1187/cbe.04-07-0045>

SPUR: Excelling in Learning Achievement

OUR's SPUR is successful because of the learning outcomes demonstrated by participants. Participants (Mentors and mentees) submit a closing report after the end of the summer experience.

SPUR SCHOLARS AGREE because of the research experiences, they can:

94%

Identify appropriate methodologies

100%

Identify & utilize previous research

94%

Effectively present research

89%

Work collaboratively and effectively communicate with other researchers

92%

Articulate a research question or creative objective

97%

Meet the field's standard for responsible conduct in research

94%

Reflect on research and make future plans based on their experiences

38

Students completed the Closing Report
Total of 38 SPUR Mentees 2022

100% SPUR MENTORS AGREE because of the research experiences, their mentees are able to:

- Articulate a research question or creative objective
- Identify appropriate methodologies
- Identify & utilize previous research
- Meet the fields standard for responsible conduct in research
- Work collaboratively with other researchers
- Effectively present research
- Make future plans because of this experience

37%

Mentors completed the Closing Report

Total of 38 SPUR Mentors 2022

Travel and Small Grants

OUR recognizes that essential to supporting undergraduate research is providing students with opportunities to travel to research sites, present at national or international conferences, and have resources to assist with research costs. Defraying the costs associated with research networking and research itself, is a central way to break inequities in research.⁴ Every month OUR reviews student applications for travel and small grants. In collaboration with student evaluators (the Undergraduate Research Leaders), OUR funds students for travel and small grants of \$500. Travel & Small grants was supported by the Ivory Foundation. OUR grew the number of travel and small grants awarded for 2022-2023 by 8%.

52
**TRAVEL
& SMALL
GRANTS**

110 applicants

“This experience felt like the kickstart I needed to continue my degree and feel hopeful for my professional future. I suffer from severe imposter syndrome and anxiety, and I was incredibly nervous about attending a research conference for the first time, let alone presenting my own work. However, I gained confidence in myself after my presentation, and I will never forget the encouragement and praise I received from professionals and my mentor. I feel confident continuing my research and working on my honors thesis, and it was the motivation I needed! I found myself even more fascinated with mining and metallurgical engineering, specifically. I am now strongly considering pursuing my doctorate in metallurgical engineering instead of material science.”



– OUR Travel Grant Recipient, Chemistry



“My undergraduate research experience has been nothing short of great. I never really planned on doing research, but now since I have been given the opportunity to do so, it has changed so much for me. I now can see continuing in research as a career path. It has helped me grow my lab skills, my public speaking skills, and now even made me a more well versed traveler.”

– OUR Travel Grant Recipient,
Environmental &
Sustainability Studies

⁴ For more information, visit <https://www.lifescied.org/doi/full/10.1187/cbe.19-11-0262>

Scholarships

OUR is successful because of the donors supporting our scholarships. For the 2022-2023 year, OUR awarded 21 students scholarships. Undergraduate Studies OUR is supported through a variety of state and private funds. Donors include the Lawrence T. Dee and Janet T. Dee Foundation, Francis Family Foundation, and the Parent Fund. The Monson Family Fund supports the Monson Essay Prize. OUR recognized our generous donors and supporters during the Outstanding Undergraduate Research Award Ceremony on April 3, 2023.

21
SCHOLARSHIPS
AWARDED

Francis Family Fund Scholarship

The John A. and Irene F. Francis Endowment Fund was established by John A. Francis in memory of his wife, Irene F. Francis, and to acknowledge the work of his son, John G. Francis, professor of political science at the University of Utah. The Francis Endowment Fund recognizes outstanding undergraduate researchers in the arts, social sciences, and the humanities.

- **Kailee Ferret** (Mentor: Leslie Francis, Law)
- **McKenna Hunt** (Mentor: Sudha Jayaraman, Medicine)
- **Callie Avondet** (Mentor: Sara Grineski, Social & Behavioral Science)
- **Aidyn Eldredge** (Mentor: Timothy Webster, Social & Behavioral Science)
- **Hailey Hollins** (Mentor: James Gagnon, Science)
- **Raina Miller** (Mentor: Moriel Zelikowsky, Neurobiology)
- **Kimberly Ponce Gonzalez** (Mentor: Katherine Supiano, Nursing)
- **Hunter Carlson** (Mentor: Jesse Christensen, Health)

Dee Foundation Scholarship

The Lawrence T. Dee and Janet T. Dee Foundation was established by Lawrence Taylor and Janet Teller Dee in 1971 for the purpose of promoting charitable activities in Ogden and the surrounding area. It remains a family foundation dedicated to furthering the growth and well-being of the people of northern Utah.

- **Ava Peitz** (Mentor: Ming Hammond, Science)
- **Kayleigh Kirkpatrick** (Mentor: Kaedan O'Brien, Social & Behavioral Science)
- **Sabrina Su** (Mentor: Jay Kim, Engineering)
- **Tessa Petersell** (Mentor: Peter Fino, Health)
- **Erin Garzella** (Mentor: Tracey Lamb, Medicine)
- **Derrick Wong** (Mentor: Yong Kong, Engineering)
- **Nathanael Hooper** (Mentor: Dustin Williams, Medicine)
- **Mickenzie Fleming** (Mentor: Aaron Fischer, Education)

Parent Fund Scholarship

The Parent Fund is sustained by parents and supports studentcentered programs and initiatives. The Parent Fund plays an integral role in the University of Utah's ability to provide students with exceptional opportunities inside and outside the classroom.

- **Sonia Osuna** (Mentor: Peter West, Pharmacy)
- **Sophie Stephens** (Mentor: Sihem Boudina, Health)
- **D. Christian Furness** (Mentor: John Longino, Science)
- **Adriana Payan-Medina** (Mentor: Ramkiran Gouripeddi, Medicine)

Monson Prize

The Charles H. Monson Essay Prize honors Charles H. Monson Jr., a distinguished member of the University Philosophy Department from 1958 to 1974. Professor Monson earned both 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, 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 who writes an outstanding paper on a subject having to do with social change (the application includes submission of an original piece of work that is 5-20 pages in length).

2023 Monson Prize Awardee

Malea Bauer (Mentor: Amos Guiora, School of Law)

SILENCE IS VIOLENCE: A NATIONAL LEGISLATIVE PROPOSAL FOR THE CRIMINALIZATION OF THE ENABLER TO INSTITUTIONAL ABUSE



"For centuries, institutions have exploited their power to abuse the vulnerable and avoid culpability. In many cases, the abuse would not have been possible if not for the institutional underpinnings which protect the perpetrators. These people, who initiate cover ups or turn a blind eye, ought to be considered enablers. Enablers are as endemic a problem as perpetrators. This thesis advocates for establishing a federal duty to protect between members of institutions and the victims of institutional abuse. The proposed legislation defines an institutional duty to protect and criminalizes the actions or inactions of enablers that can be directly linked to continued abuse of the victims."

- Malea Bauer, Monson Prize Awardee 2023

Recognition

Outstanding Undergraduate Researcher and Research Mentor Awards

Every year, the OUR Awards Ceremony recognizes undergraduate student researchers in partnerships with the university colleges across campus. For the 2023 awards ceremony held on April 3, OUR inaugurated the Outstanding Undergraduate Research Mentor Award. A total of 27 individuals received awards. The OUR Mentor Awards are presented to faculty mentors who embody excellence in mentoring undergraduate researchers. The Outstanding Undergraduate Research Awardee is awarded to student researchers who represent sustained engagement with research and contributions to a positive research culture. Awardees are selected by their college leadership and committees, with the awards provided by OUR. Faculty and student recognition is a central facet of fostering a positive research culture.



19

**STUDENTS
RECOGNIZED**

16

**COLLEGES
& SCHOOLS**

16

**MENTORS
RECOGNIZED**



2023 Outstanding Undergraduate Researchers

Charlotte Garris (Mentor: Professor Keith Bartholomew)
College of Architecture & Planning

Ryan McBride (Mentor: Professor Vandana Ramachandran)
School of Business

Natalia Garrido (Mentor: Professor Claudia Geist)
School for Cultural & Social Transformation

Eliza Diggins (Mentor: Professor Melodie Weller)
School of Dentistry

Tessa Cahoon (Mentor: Professor Mary Burbank)
College of Education

Adriana Payan-Medina (Mentors: Professor Julio C. Facelli, Professor Ramkiran Gouripeddi)
College of Engineering

Michael Alessandro Keyser (Mentor: Professor Pierre-Emmanuel Gaillardon)
College of Engineering

Lauren Carn (Mentor: Professor Lynn Deboeck)
College of Fine Arts

Elena Yee (Mentor: Professor Micah Drummond)
College of Health

Katie Sanyal (Mentor: Professor Michael Gills)
Honors College

Eliana Massey (Mentor: Professor Matthew Basso)
College of Humanities

Samuel Hendry (Mentor: Professor Matthew Mulvey)
School of Medicine

Nancy Sohlberg (Mentor: Professor Gannet Hallar)
College of Mines & Earth Sciences

Sydney Gilliland (Mentor: Professor Lauri Linder)
College of Nursing

Oliver Hubbard (Mentor: Professor Hamid Ghandehari)
College of Pharmacy

Alison Wang (Mentor: Professor Caroline Saouma)
College of Science

Yexalen Barrera-Casas (Mentor: Professor Michael Morse)
College of Science

Shaistah Din (Mentor: Professor Marissa Deiner)
College of Social & Behavioral Science

Camden Alexander (Mentor: Sara Grineski)
College of Social & Behavioral Science

2023 Outstanding Undergraduate Researcher Mentors

Sarah Hanners, Ph.D.
College of Architecture & Planning

Vandana Ramachandran, Ph.D.
School of Business

Annie Isabel Fukushima, Ph.D.
School for Cultural & Social Transformation

Melodie Weller, Ph.D.
School of Dentistry

Professor Mary D. Burbank
School of Education

Cynthia Furse, Ph.D.
College of Engineering

Professor Alexandra Harbold
College of Fine Arts

J. David Symons, Ph.D.
College of Health

Michael Gills, Ph.D.
Honors College

Rachel Hayes-Harb, Ph.D.
College of Humanities

Yan-Ting Shiu, Ph.D.
School of Medicine

Gannet Hallar, Ph.D.
College of Mines & Earth Sciences

Lauri Linder, Ph.D, APRN, CPON, FAAN, FAPHON
College of Nursing

Amy M. Barrios, Ph.D.
College of Pharmacy

Ofer Rog, Ph.D,
College of Science

Sara Elizabeth Grineski, Ph.D.
College of Social & Behavioral Science

Undergraduate Research Scholar Designation (URSD)

The Undergraduate Research Designation was created during Fall 2006 to recognize undergraduate researchers engaging in sustained research for two semesters or more. The designation appears in a student's transcript. The designation appears in the awards section of the transcripts for graduating students, where awardees receive research cords from the Office of Undergraduate Research to wear at convocation and commencement ceremony and are recognized during the commencement. One hundred forty students earned an Undergraduate Research Scholar Designation during the 2022-2023 academic year.

140
SCHOLAR
DESIGNEES

Summer 2022

Habibo Abdi
Sam Bagge
Suhyun Hahm
Al Ingold
Simran Karim
Carrie Marsh
James McMahon
Azeem Mohammed
Tara Tazehabadi
Tessa Vu
Anahi Yerman

Fall 2022

Alexander Becraft
Britney Chen
Tony Chen
Piper Christian
Zach Eatough
Adam Ford
Loveleen Ghuman
SuYeon Gwak
Brian Hassard
Marin Macfarlane
Zach Mallender
Eshan Narasipura
Tara Olson
Cody Page
Katee Perez
Mary Smith
Matthew Snyder
Jada Kali P. Stelmach
Heba Sultan
Gary Urry
Breanna Wong
Caleb Woolston
Kathy Wright
Alexandra Yengich

Spring 2023

Ray Aljassimi
Ruba Alraqibah
Kara Andersen
Ella Baker
Yexalen Barrera-Casas
Chloe Barry
Bennett Blake
Tessa Cahoon
Hunter Carlson
Lillee Casselman
Tiffany Chan
Joshua Chang
Claire Cruz
Jordan Davidson
Lexi DeFord
Sandra Del Rio Madrigal
Shane Denherder
Gabi Desjardins
Gareema Dhiman
Shaistah Din
Tiffany Do
Morrison Donovan
Bailey Doucette
Samantha Eddy
Aidyn Eldredge
Mary Fairbanks
Maddie Festin
Kenzie Fleming
Ximena Franco
Jordyn Gagon
Gauri Garg
Emil Geisler
Sydney Gilliland
Karah Hall
Amy Harvey
Josh Hillyard
Lindi Hopkins
McKenna Hunt
Nate Iverson
Jasmine Jacobo
Cameron Jensen
Anila Jonnavithula
Samuel Judd



Sahar Kanishka
Wona Kim
Scott King
Chloe Kraft
Peter Krauel
Marissa Larkin
Alyssa Lee
Palmer Lee-Mesa
Will Loxley
Kitsel Lusted
Steven Marz
Corinna McMurtrey
Melika Moeinvaziri
Jamie Nakano
Carter Niedert
Lauren Page
Ryan Park
Adriana Payan-Medina
Gary Perea
Shaylie Platten
Katya Podkovyoff Lewis
Kimberly Ponce Gonzalez
Nizhoni Porter
Shree Prakash
Annie Pugmire
Sarv Raafati
Luis Ramirez
Saul Rivera-Flores

Talon Roberts
Keaton Rosquist
Catherine Rousculp
Ana Rowe
Dana Schiwal
Emily Singer
Brock Smith
Jackie Smith
Karrah Spendlove
Sabrina Su
Haley Tetzlaff
Payton Thomas
Ashley Thompson
Macey Tilk
Sarthak Tiwari
Kacey Tollefson
Melissa Tyszko
Minahil Usman
Mykie Valenzuela
Caton Weinberger
Marc Whiting
Emi Wickens
Derrick Wong
Elaine Wong
MacKenzie Woodrum
Elena Yee
Sierra Young

Multi-level Mentoring

Central to OUR's philosophy is a multi-mentor model⁵ of faculty, staff, and peer support. Mentoring is a central part of integrating students into the institution⁶, and even, creates a sense of belonging. Mentors are central to socializing students into a research enterprise and also supporting professionalization.

OUR's student leaders are available to support their peers in applying for IRBs, funding through Funding Fridays, and facilitating workshops and office hours to support their peers on abstracts, presentations, and research opportunities. Staff and peer mentors assist students with questions about applying for funds, or how to finding research opportunities.



Faculty and Student Collaborations

Faculty and graduate students support undergraduate research as research mentors. The OUR launched ***OUR faculty affiliates*** in 2022 as a way to recognize the many faculty mentors who support undergraduate students as research mentors across campus. As students participate in the research enterprise, their faculty mentors fulfill an important pedagogical role for student researchers, where much of the mentoring occurs outside of the classroom. 393 faculty were onboarded as faculty affiliates by 2023. Central to OUR's role at the U is creating a centralized place for students to find opportunities with award-winning and nationally recognized faculty. The OUR launched in the fall of 2022 a database for students to "***find an opportunity***," also known as the "research database." Opportunities posted in the database are then pushed out to social media and the link shared with faculty to share with their student networks.

423
MENTORS

Faculty & Graduate
Students

16
**COLLEGE
PARTNERS**

390
REVIEWERS

538
**RESEARCH
OPPORTUNITIES
POSTED**

⁵ For more information, visit [Chrome-extension://efaidnbmnnnibpcjpcglclefindmkaj/https://www.researchgate.net/profile/Evan-Bradley-3/publication/317017780_The_structure_of_mentoring_in_undergraduate_research_Multi-mentor_models/links/591f3c150f7e9b-99793c4ce7/The-structure-of-mentoring-in-undergraduate-research-Multi-mentor-models.pdf](https://www.researchgate.net/profile/Evan-Bradley-3/publication/317017780_The_structure_of_mentoring_in_undergraduate_research_Multi-mentor_models/links/591f3c150f7e9b-99793c4ce7/The-structure-of-mentoring-in-undergraduate-research-Multi-mentor-models.pdf)

⁶ For more information, visit <https://link.springer.com/article/10.1007/s10755-013-9255-2>

Peer Mentoring and Staff Support

Undergraduate Research Leaders: Peer-Mentors

Undergraduate research leaders serve as important ambassadors to a campus culture that fosters undergraduate research. Undergraduate Research Leaders table, provide classroom/group presentations, facilitate workshops, and provide research advising as peer-mentors. Specialist roles serve specific functions.

Community-Based Research Specialist coordinated feedback from University Neighborhood Partners on content creation on the website, and in the spring of 2022, the OUR launched a new segment of its website on **Community Engaged Research** for growing undergraduate research in communities. OUR piloted in the fall of 2022 a new drop-in and peer-support called the **IRB Lab**. This lab was a success where students received peer support on IRB applications, in consultation with the Institutional Review Board. Additionally, the student leader serves as a reviewer of IRB applications. The Publications and Research Publics Specialist supported the office with moving the journal, **Range: Undergraduate Research Journal**, from a website to utilizing Pressbooks through the Utah Education Network, and serves as the student editor for the journal. In the fall of 2022, the OUR also launched **Funding Fridays**, which operates as a drop-in weekly time for students to receive support with their UROP, SPUR, and Travel & Small Grant applications. Diversity in STEM research is central to OUR; therefore, the STEM Research Specialist assisted OUR's associate dean with grant applications and also facilitated workshops to support students in STEM with abstract writing for conference submission to the Utah Conference on Undergraduate Research and SPUR.

428
STUDENTS
received
**RESEARCH
ADVISING**

Undergraduate Research Leaders 2022 - 2023

- Joshua Chang, Community-Based Research Specialist (2022-2023)
- Mary Fairbanks, Social Media Specialist (Fall 2022)
- Gauri Garg, IRB & Clinical Research Specialist (Fall 2021-Spring 2023)
- Eliana Massey, Publications & Research Publics Specialist (2022-Current)
- Melika Moeinvaziri, Diversity in Research Specialist (2022-2023)
- Ava Peitz, IRB Specialist (Spring 2023-Current)
- Sophie Stephens, Pre-Award Specialist (Fall 2022)
- Sarthak Tiwari, STEM Research (2022-2023)
- Emi Wickens, Research Evaluation (Spring 2022-Spring 2023)



Research Education and Educational Outreach

Education Series

The Education Series is seminal for providing supplemental content beyond the classroom. Intended to offer content outside of the classroom, students learn about a range of topics that enhance their understanding of research, dissemination, and collaboration. The first Undergraduate Research Education Series was hosted in Fall 2014. During Fall 2022, the OUR launched a new education series section of the website in partnership with University Marketing & Communications (UMC) to ensure ongoing accessibility of content and searchability. A total of 4,367 individuals attended OUR's education series during the 2022-2023 academic year (live and on-demand). This was an astounding 144% growth in attendees.

29
TOTAL
SESSIONS

966
LIVE / IN-PERSON
ATTENDEES

3,401
ON-DEMAND
ATTENDEES



Undergraduate Research Education Series

DATA VISUALIZATION & RESEARCH POSTERS

Presenters:
Greg Hatch & Donna Baluchi

11.04.22
11AM - 12PM
Virtual Event

Learn about how to create images for various types of data, including data from humanistic and creative projects, and how to visually represent those data on research posters.

More info available at:
<https://our.utah.edu/>

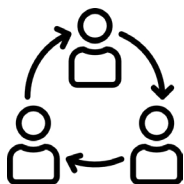
EDUCATION SERIES TRACKS



17
Research
Basics &
Skill Building



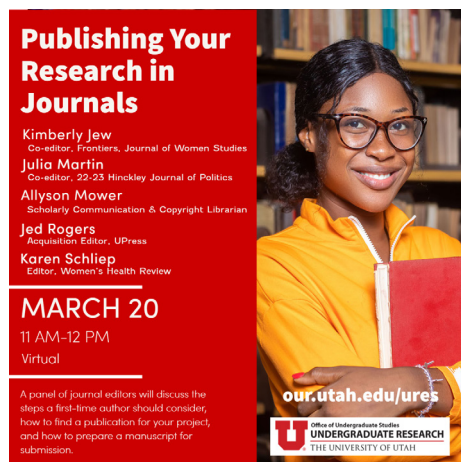
9
Social
Justice
& Ethics



14
Research
Collaboration &
Communication



6
Careers &
Research



**Publishing Your
Research in
Journals**

Kimberly Jew
Co-editor, Frontiers, Journal of Women Studies

Julia Martin
Co-editor, 22-23 Hinkley Journal of Politics

Allyson Mower
Scholarly Communication & Copyright Librarian

Jed Rogers
Acquisition Editor, UPress

Karen Schliep
Editor, Women's Health Review

MARCH 20
11 AM-12 PM
Virtual

A panel of journal editors will discuss the steps a first-time author should consider, how to find a publication for your project, and how to prepare a manuscript for submission.

our.utah.edu/ures

Office of Undergraduate Studies
UNDERGRADUATE RESEARCH
THE UNIVERSITY OF UTAH

Presentation and Publication

Publishing and presenting research is a vital part of completing the research cycle¹. During 2022-2023 academic year, OUR supported 1,260 undergraduate research presentations in the semester-based Undergraduate Research Symposia, Utah Conference on Undergraduate Research, Research on Capitol Hill, and the National Conference on Undergraduate Research. To support student publications, OUR publishes student research in *RANGE: Undergraduate Research Journal*.



Undergraduate Research Symposium (URS)

Every semester, OUR hosts the Undergraduate Research Symposia (URS). The first Undergraduate Research Symposium was hosted during Spring 2004. URS provides an opportunity for University of Utah students to present their work in a scholarly setting to students, faculty, and other members of the U community. Undergraduate students from all disciplines at the University of Utah are invited to present their research and creative work. To sustain diverse participation, the symposium is offered for all three semesters: Summer 2022 (in-person), Fall 2022 (virtual), and Spring 2023 (virtual). During the summer symposium, VIP speakers and guests joined our conference including President Taylor Randall, Vice President for Research Erin Rothwell, and the former interim Provost Martell Teasley.

Additionally, OUR sponsors college and field-based symposia: SACNAS 2023 and College of Humanities 2023. 338 students at our and our partner symposia

216

**SUMMER
SYMPOSIUM
PRESENTERS**

In-person presentations

41

**FALL
SYMPOSIUM
PRESENTERS**

Virtual presentations

482

**SPRING
SYMPOSIUM
PRESENTERS**

In-person & virtual presentations



¹https://www.jstor.org/stable/10.2979/teachlearningqu.1.2.105?casa_token=nVhb4V4GxREAAAAA:OesvB5-9hMQidc_JauT_L1E9Lqs442pB_PBIP9oLETwH64maNM3FE0ejbplOrghnmVy2EQDwBRhszngxzFV-2p6PTA1Jd0Qo545aT2hAwg77CaZJ-3Jh

Symposium Poster Evaluation - Advancing Learning Outcomes

Every semester OUR hosts research symposia. Faculty, staff, and graduate students across the University of Utah campus serve as poster evaluators of the symposia.

Summer &
Fall 2022

482

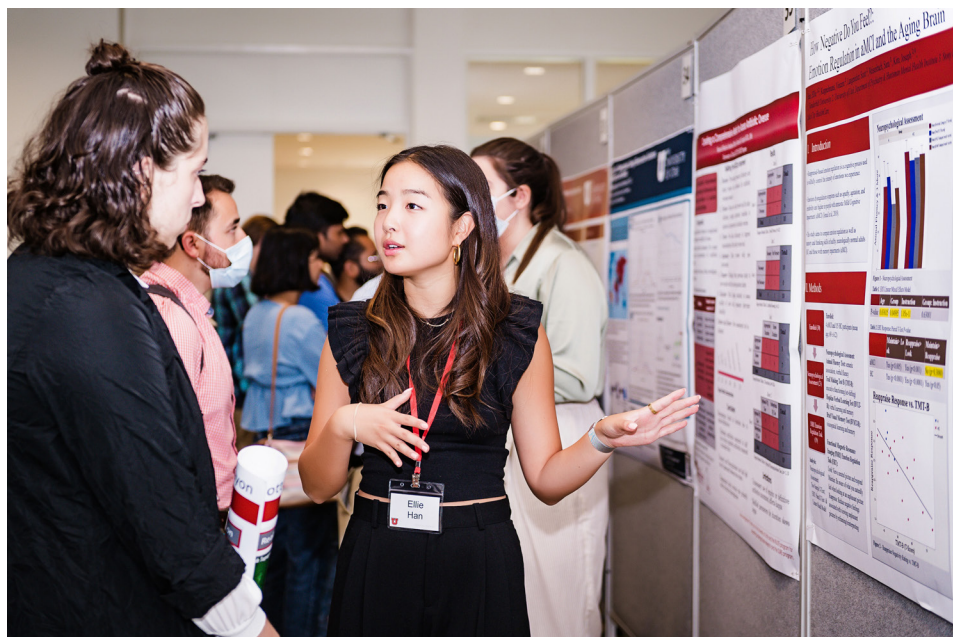
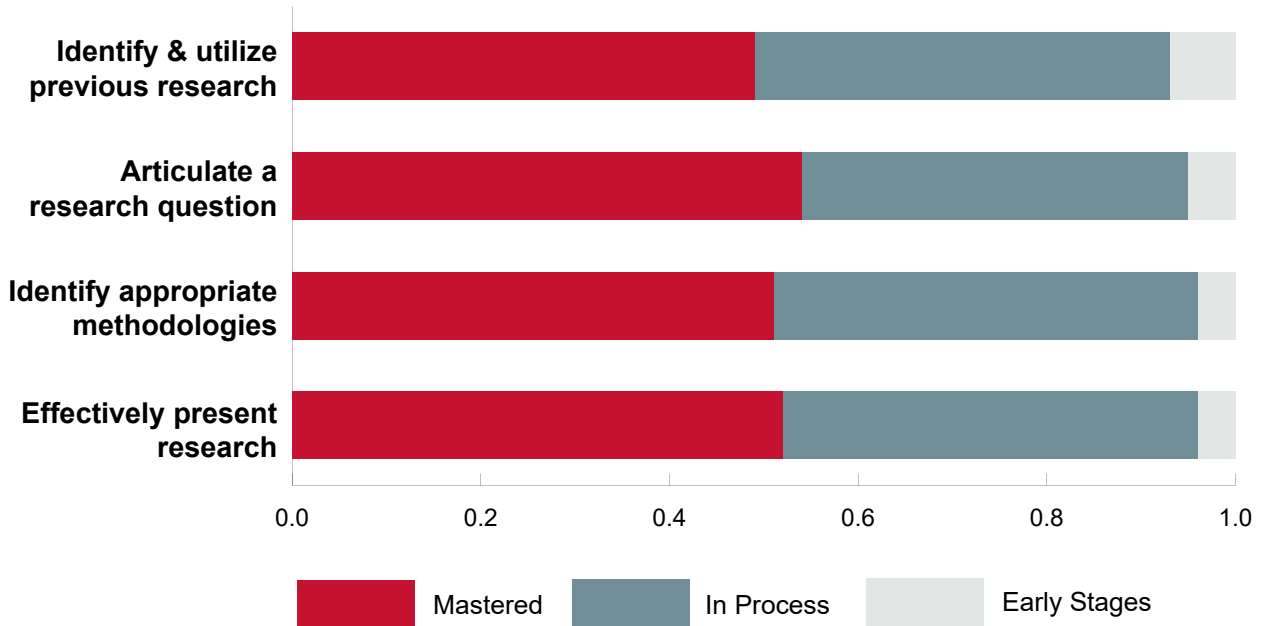
Presenters

108

Poster
evaluators

524

Poster
evaluations



Utah Conference on Undergraduate Research (UCUR)

The mission of the Utah Conference on Undergraduate Research (UCUR) is to promote undergraduate research, scholarship, and creative activity, done with the mentorship of a faculty member or others, through an annual conference. Undergraduate research is a high-impact educational practice - students who participate in research opportunities lead to positive outcomes with retention, graduation, and post-graduation decisions. Student presentations are welcome in all fields and disciplines from the creative and performing arts to biomedical, engineering, and social science research.

UCUR 2023 was co-chaired by Dr. Annie Isabel Fukushima, Cindy Greaves, and Megan Shannahan. The University of Utah hosted the state-wide conference, collaborating with University Marketing and Communications to create materials to promote the event held at the Alumni House, The Sterling Sill Center, and the Union. Six hundred thirty-nine students registered to present at the U. UCUR was supported by: Undergraduate Studies, Office of Undergraduate Research, Vice President for Research, College of Mines & Earth Sciences, Graduate School, J. Willard Marriott Library, Utah Museum of Fine Arts, and Utah System for Higher Education (USHE) partners: Brigham Young University, Salt Lake Community College, Snow College, Southern Utah University, Utah State University, Utah Tech University, Utah Valley University, Weber State University, Westminster College. The program was **published** with Press Books and a new searchable feature was created on the **OUR website**.



10

INSTITUTIONS

Brigham Young University
Salt Lake Community College
Snow College
Southern Utah University
University of Utah
Utah State University
Utah Tech University
Utah Valley University
Weber State University
Westminster College

627

PRESENTERS

100

POSTER EVALUATORS

639

REGISTRANTS

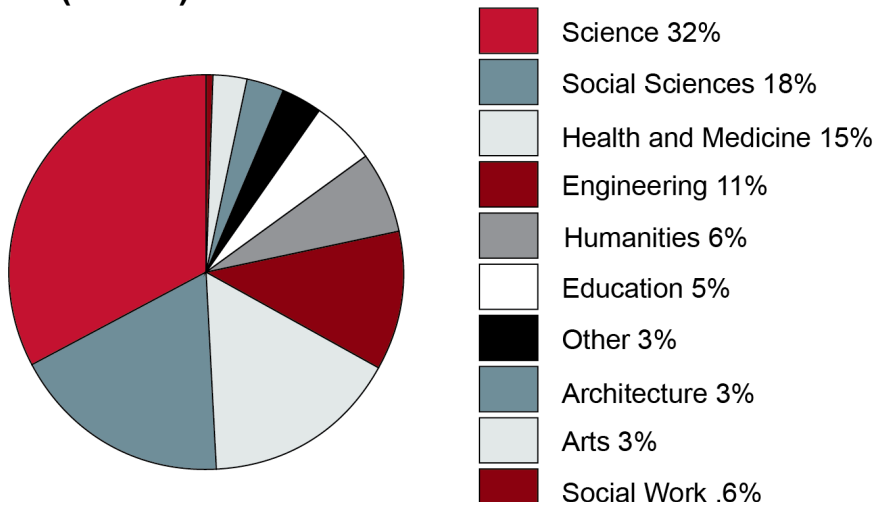
102

VOLUNTEERS

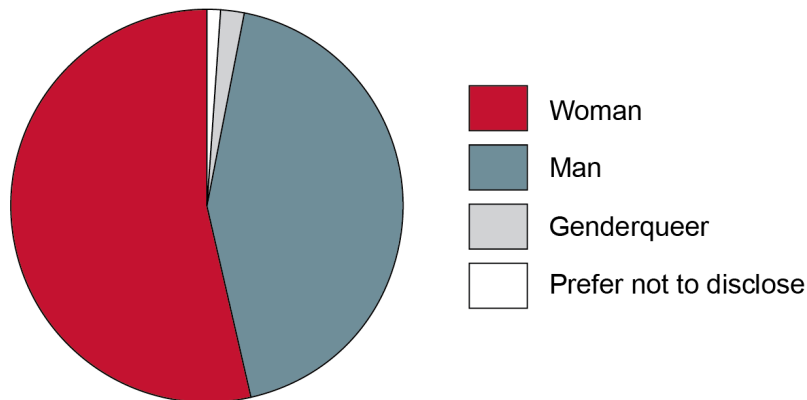


	STUDENT PRESENTATIONS			FACULTY
INSTITUTION	Applied	Group Presentation	Registered	Registered
Brigham Young University	162	134	189	17
Salt Lake Community College	6	2	6	3
Snow College	1	1	2	1
Southern Utah University	41	37	51	6
University of Utah	209	188	194	25
Utah State University	44	37	40	4
Utah Tech University	26	23	35	11
Utah Valley University	120	78	96	9
Weber State University	30	17	23	10
Westminster College	4	3	3	1
TOTAL	643	520	639	87

Areas of Research (n=622)

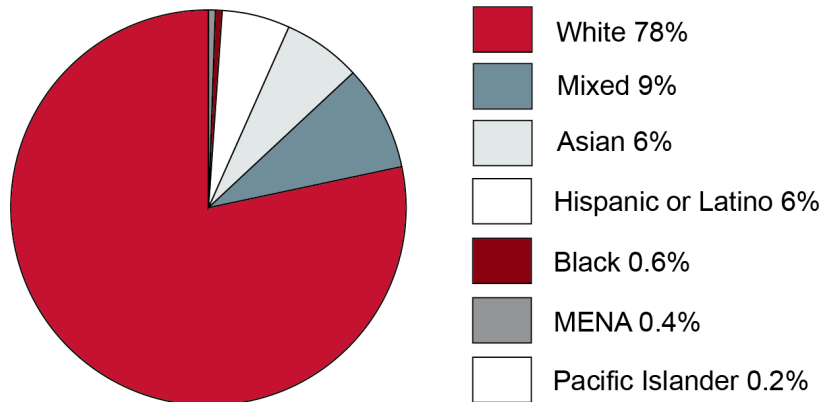


Gender (n=622)



Note on areas of research, gender, and race and ethnicity: data collected from self-disclosed categories at registration from student presenters representing Utah System of Higher Education institutions.

Race and Ethnicity (n=622)

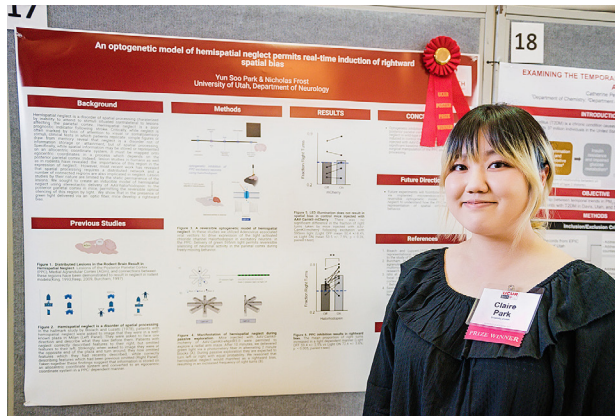


UCUR Poster Prizes

UCUR 2023 inaugurated poster prizes which were made possible by generous donations from the University of Utah's Office of the Vice President for Research (VPR) and Undergraduate Advancement (Office of Undergraduate Studies).

Undergraduate research presentation opportunities afford early career researchers an opportunity to practice speaking about their research and makes visible their research; it is an important aspect of research professionalism and a high-impact practice.

One hundred people served as poster-evaluators from across the state of Utah. The UCUR poster prize committee included Associate Vice Provost Jake Jensen (VPR), Associate Dean Mark St. Andre (Data and Analytics), Associate Dean Annie Isabel Fukushima (Undergraduate Studies and Office of Undergraduate Research), Associate Director Eli Covarrubias (Office of Undergraduate Research), and Academic Program Manager Megan Shannahan (Office of Undergraduate Research). The committee was deeply impressed by the quality of posters submitted for this competitive state-wide undergraduate research competition.



Best: Overall

Claire Park, University of Utah, Poster D17, "An Optogenetic Model of Hemispatial Neglect Permits Real-Time Induction of Rightward Spatial Bias"

Best: Health Science

Best Health Sciences Winner: Tanner Frahm, University of Utah, Poster D10, "Fully Magnetically Levitated Continuous Flow Left Ventricular Assist Device: Are We There Yet?"

Best Health Sciences Winner: Harlan Stevens, Brigham Young University, Poster D42, "Genetic Modification of NMAD-1 Demethylase in *C. elegans* to Affect Longevity"

Health Sciences Honorable Mention: Hayden Johns, Utah State University, Poster D4, "Vascularization of Renal Organoids Using Chorioallantoic Membrane"

Health Sciences Honorable Mention: Kim Wilson, Utah Tech University, Poster D44, "Bulimia Nervosa and Treatment-Related Disparities: A Review"

UCUR Poster Prizes - Continued

Best: Humanities

Best in Humanities Winner: Christine Schmidt, Anita Riddle, Sierra Schmidt, Karson Spencer, Salt Lake Community College, Poster B91, "Alternative, Ergonomic Music Keyboard Designs Suit More People"

Humanities Honorable Mention: Mckenna Goade, Utah Valley University, Poster A5, "The Presence of Absence: Exploring the Shadows of Death"

Best: Inter-disciplinary

Best in Interdisciplinary Fields Winner: Nura Mostaghimi, University of Utah, Poster A64, "Increasing Science Self-Efficacy and Identity Through Participation in the Native American Summer Research Internship Program"

Interdisciplinary Fields Honorable Mention: Brynn Pyper, Brooke Curry, Marinne Hammond, Matthew Grendell, Brigham Young University, Poster C34, "The Effects of Writing Tutoring on Perceived Stress"

Interdisciplinary Fields Honorable Mention: Cayden Schroader, Emma Blanch, Kary Makela, Weber State University, Poster C75, "Weber State Student Leadership Social Issues Team: Why Students' Completion Numbers for FAFSA are at All Time Low"

Best: Social Justice

Best in Social Justice & Equity Winner: Sarai Silva, Brigham Young University, Poster C60, "Guadalupe Monroy: "Mujer virtuosa, ¿quién la hallará?""

Social Justice & Equity Honorable Mention: Andrew Koenig, University of Utah, Poster C63, "New Leadership Academy's Effect on Leadership"

Best: Social Sciences

Best in Social Sciences Winner: Kyle Davis, Brigham Young University, Poster C54, "Now Growing Grapes: The Post-2012 Political Realignment of Orange County from Red to Purple"

Social Sciences Honorable Mention: Marissa Larkin, University of Utah, Poster A56, "Associations Among Maternal Trauma History, Prenatal Emotion Dysregulation, and Prenatal Sleep Quality"

Best: STEM (Science, Technology, Engineering & Mathematics)

Best in Science, Technology, Engineering, & Mathematics Winner: Dallin Billings, Southern Utah University, Poster B57, "Investigating the Mechanism of Action of Histidine Ammonia Lyase"

Best in Science, Technology, Engineering, & Mathematics Winner: Lauren Ford, Erin Taylor, Eliza White, Brigham Young University, Poster B60, "Effects of Immune System Activity and Methamphetamine on Dopamine Terminal Function"

Science, Technology, Engineering, & Mathematics Honorable Mention: Kamarie Dalton, Southern Utah University, Poster D29, "Prenatal Folate Status Influences Hematopoietic Stem Cell Function"

Science, Technology, Engineering, & Mathematics Honorable Mention: Megan DuVal, University of Utah, Poster D64, "Exploring Species Boundaries in a Widespread Army Ant Genus Using DNA Barcodes"

National Conference on Undergraduate Research (NCUR)

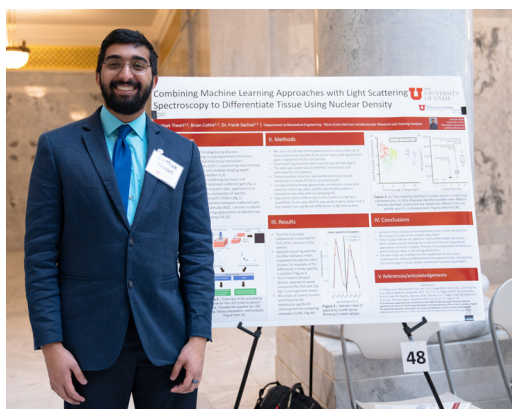
NCUR 2023 was hosted at the University of Wisconsin-Eau Claire. To support student presenters, the OUR hosted the session ***Presenting at a National Conference*** facilitated by Dr. Annie Isabel Fukushima and student leader Ava Peitz on March 16, 2023. OUR supports student travel to conferences and paid for the student registration fees.

15
STUDENT PRESENTERS

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. State legislators are invited to attend the poster presentations, where students receive guidance on how to speak with state representatives about their research. ROCH demonstrates the importance of undergraduate research and creative work through a collaboration between public research universities in this state: University of Utah and Utah State University. The first ROCH was hosted at Capitol Hill in 2000. Legislators are invited by vice president Jason Perry and Natalie Tippets (Office of Government and Relations), to learn more about R1 research and the vital role state funds have in fostering the future of Utah. Speakers included Governor Spencer Cox, Associate Vice President for Research Integrity & Compliance Caren Frost (University of Utah), and President Noelle E. Cockett (Utah State University).

24
STUDENT PRESENTERS
January 20, 2023



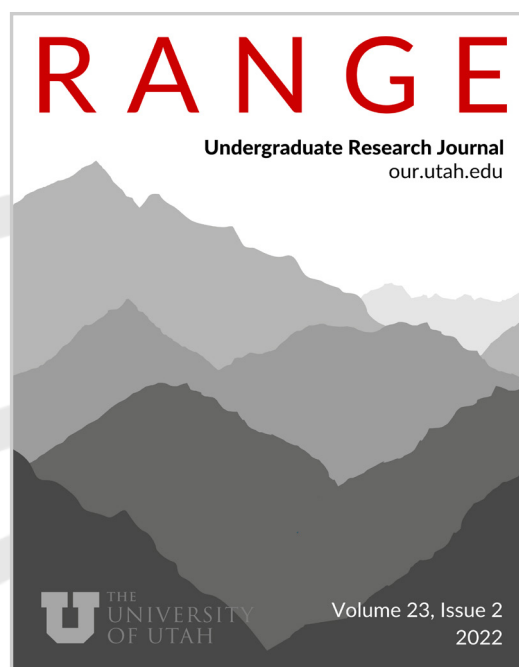
RANGE: Undergraduate Research Journal

2022 marked 22 years of undergraduate research publications with the Office of Undergraduate Research Undergraduate Research Journal. For volume 23 (Fall issue, 2022), the OUR shared with our readers and contributors the publication of the journal on a new platform: **Press Books**. To celebrate the new location and the transformation of the journal, the journal was renamed to: **Range: Undergraduate Research Journal**. UEN Digital Press with Pressbooks supports Utah's growing community of educators and partners seeking to transform teaching and learning through OER and Open Pedagogy.

223
STUDENT
ENTRIES

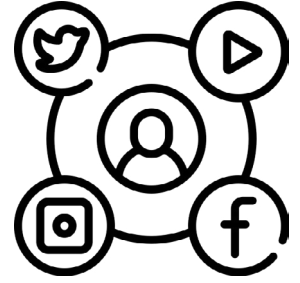
1,244
JOURNAL
VISITORS

3,489
PAGE VIEWS



OUR Outreach

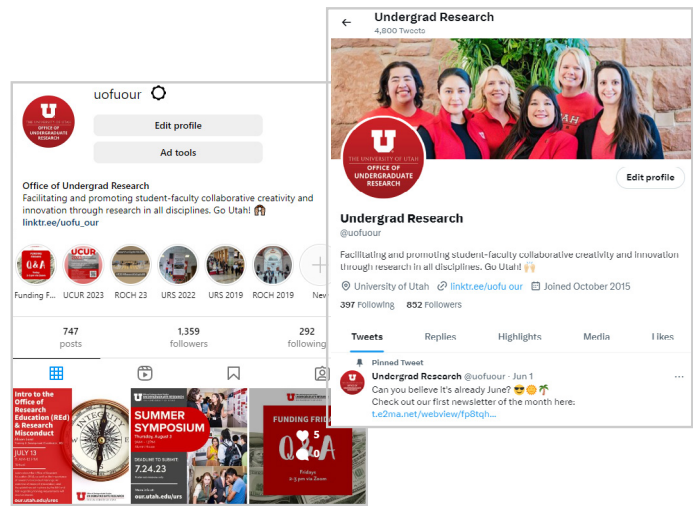
The OUR outreach includes tabling, classroom presentations, social media, and our website. During Fall 2022, in partnership with University Marketing & Communications, OUR launched the newly designed website. This included the use of a new platform to distribute communications via a bi-weekly newsletter: MyEmma.



69 **4,847**
EVENTS **REACHED**
ATTENDED **IN-PERSON**

Tabling at events & classroom presentations

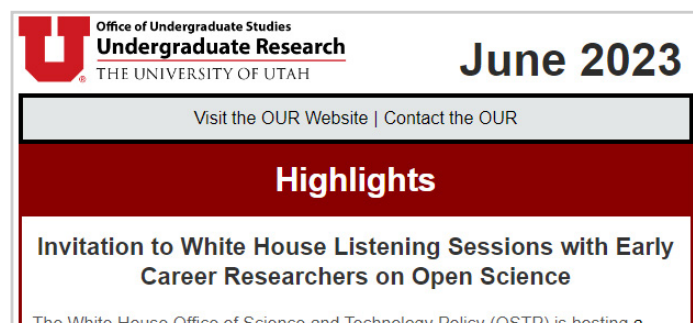
178,557
OUTREACHED ON
SOCIAL MEDIA



190,527
WEBSITE VISITORS



5,065
NEWSLETTER
RECIPIENTS



OBJECTIVE 02

From Graduation to Graduate School

OUR and Graduation

Undergraduate research is recognized for being central to retaining undergraduate students towards graduation. The centrality of mentoring relationships and programmatic activities that foster a culture of belonging in higher education have led the University of Utah's OUR to be a campus leader in creating programmatic activities and funding opportunities that support student retention.



61%

**GRADUATE
IN 4 YEARS**

90%

**GRADUATE
IN 6 YEARS**

Graduate School

For the past five years, OUR has supported graduate school aspirations in undergraduate researchers by co-hosting the "Graduate School Mini Expo" as part of its summer programs. On June 22, 2023 the most recent Mini Expo was hosted as part of summer events. The Mini Expo is a partnership between OUR Summer Programming, OUR Summer Program Partners, and the Graduate School. One hundred and fifty nine students attended the Mini Expo.

22%

**INTENDED
to go to U of U
GRADUATE SCHOOL**

n=5,765 between 2015-2023



OBJECTIVE 03

Diversity in Research and Early Academic Support

OUR students experience undergraduate research across their academic journey, from first year to graduation, with a majority of undergraduate researchers accessing opportunities in the third and fourth year of their academics. Since 2015, 30.5% of all of OUR funded students (UROP, SPUR, URL, Travel & Small Grants) have been in their first or second years of their academics. This means, the program successfully supports students as they advance early in their academics. OUR fosters equity in access through research and diversity of participants by:

- Offering a course designed for early undergraduate students
- Funding first and second-year students
- Supporting diversity in undergraduate researchers accessing opportunities

Undergraduate Studies 2950

Beginning in the spring 2021, Undergraduate Studies offered the first time ever, UGS 2950-Undergraduate Research Experience asynchronous online course. The course was designed by and taught by Dr. Anne Cook during Spring 2021 and 2022. The course fulfills general education requirements: Applied Sciences [AS] and Social & Behavioral Science [BF]. Students experience content including research fundamentals and skill building for research.

39

**STUDENTS
REGISTERED**

100%

SATISFIED
with the
COURSE

100%

RECOMMEND
the
COURSE

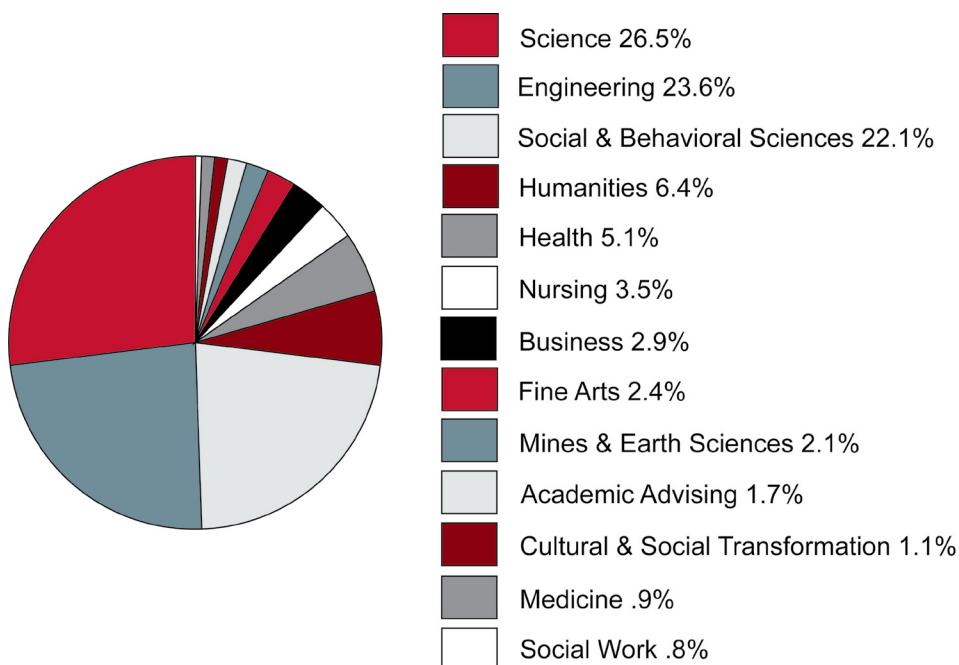


Supporting Diversity and Equity in Undergraduate Research

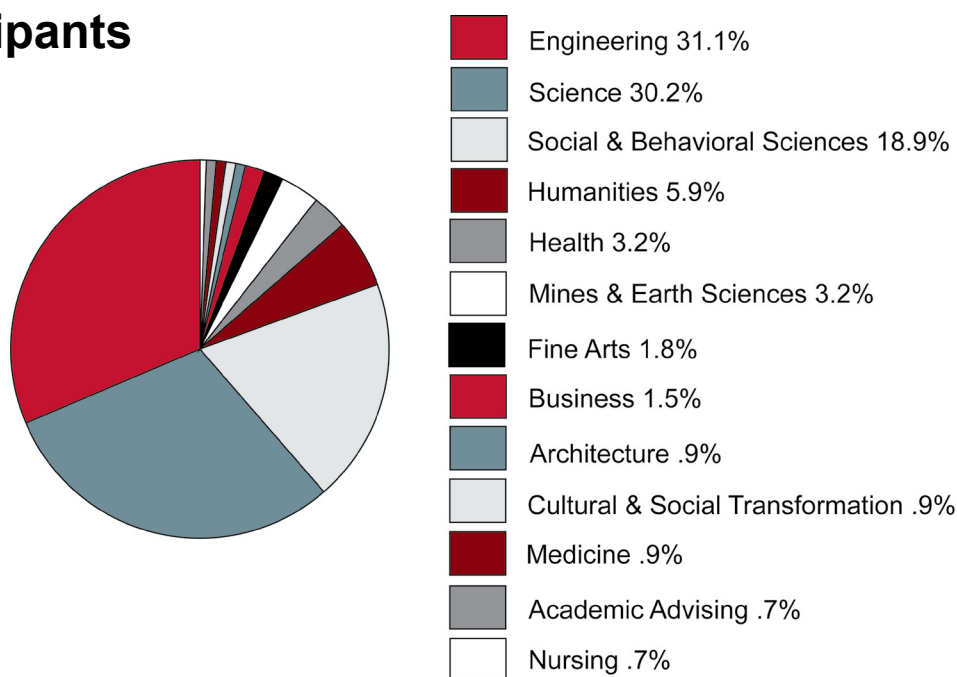
In order to promote equity in learning and research, it is essential for OUR to capture student diversity. OUR added a new question to Undergraduate Research Opportunity Programs, where mentors now respond to how a mentee's research contributes to diversity in research.

Diversity in research includes diverse fields of study, subjects of research, and diverse teams. The OUR is committed to supporting diversity in research. Students of color, including American Indian, Alaskan Native, Asian / Asian American, Black / African American, Hispanic or Latine, Multiracial and Pacific Islander constitute the diverse students of color accessing the programs. Additionally, the Office is proud of its support of gender diverse students where a majority of the programs support gender minorities and women. Additionally, 26% of OUR participants are transfer students, students who are more likely to be first generation, Pell-eligible, or students of color.

OUR Participants by College (2015-2023)



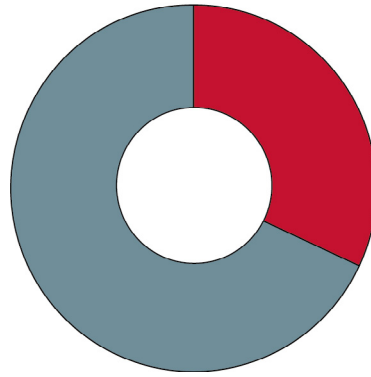
OUR Funded Participants by College (2015-2023)



Numbers are being updated every semester, and percentages can vary by semester.

Race of Participants (2015-2023)

OUR Participants
32% BIPOC



Racial demographics 2015-2023

n=18,627 participants

BIPOC: Black, Indigenous, and People of Color including Mixed-Race, Hispanic/Latine, Pacific Islander


Demographics of Participants (2015-2023)

52.5% 
FEMALE

 **21%**
FIRST
GENERATION

 **16**
COLLEGES
& SCHOOLS
participating in undergraduate
research across disciplines

26% 
TRANSFER
STUDENTS
from SLCC

 **38%**
PELL
ELIGIBLE

Data aggregates percentiles from students since 2015, and the provided data represents student diversity 2015-2023. OUR recognizes that gender, racial, and ethnic categories are more complex than what is presented here and this is just a snapshot of what is known from current University of Utah Data and Analytics.

OBJECTIVE 04

Grant Application and Fundraising Efforts

Central to a robust organization are efforts to diversify resources. The Office of the Vice President for Research, state funds, central funds from the university, private donors, and foundations support OUR. OUR participated in the March 28, 2023 #UGivingDay. Working in partnership with Undergraduate Studies Advancement, OUR has continued to sustain partnerships with donors committed to undergraduate research, including the Dee Foundation, the Francis Family Fund, Parent Fund, the Monson family, and the Roger Leland Goudie Trust.

Central to undergraduate research at the University of Utah are faculty partnerships. For the 2022-2023 academic year Associate Dean Fukushima wrote letters of support for seven external grants submitted to National Science Foundation and the National Institute for Health led by faculty at the University of Utah, reflecting efforts to encourage more faculty applying for external grants by including undergraduate researchers in their budgets.

Additionally, the associate dean teamed up with grant applications led by colleagues in the College of Science and across the campus for the Howard Hughes Medical Institute Driving Change grant application, led by Dr. Tino Nyawelo. Additionally, the OUR teamed up with faculty in Neurology to support a research fellowship grant application led by Dr. Stacy Clardy and Ka-ho Wong for their application for the **NIH National Institute of Neurological Disorders and Stroke (NINDS)** grant application.

The OUR is also pursuing federal grant opportunities to diversify the funding supporting the office, students, and faculty collaborations. To continue to strive to showcase the University of Utah as a leader in state-wide research efforts, the University of Utah's OUR led the first time ever, state-wide application for the National Science Foundation Louis Stokes Alliances for Minority Participation to create the Utah STEM ME Program. The vision of the Utah STEM ME is to strengthen educational opportunities for minorities in STEM through the creation of a Utah state-wide alliance of the STEM ME program - Science, Technology, Engineering and Mathematics for Minority Explorations. The goals of the Utah STEM ME program are as follows: 1. Fostering belonging in minority stem Scholars by strengthening state-wide partnerships; supporting undergraduate research in STEM fields in Utah. 2. Increase minority retention in STEM fields from the first year to the second year in the state of Utah.

Utah through supporting first-year explorations with research. 3. Foster minority progression in STEM fields through research mentored by faculty in STEM. 4. Advance Utah minority graduation rates in STEM fields through early explorations that lead to presenting research at the Utah Conference for Undergraduate Research. And, 5. Track STEM ME participant success in STEM fields (GPA; first year to second-year retention in STEM fields; learning objectives related to research and presenting research; increased confidence in STEM and research; and evaluate student presentations at the Utah Conference of Undergraduate Research). The Utah STEM ME program proposes to enact a multifaceted institutional change model of fostering belonging, creating resources, supporting the structure of a multi-tiered collaborative model, and a multi-faceted approach to institutional change. Before we discuss our model, we offer a background as to why this is important. The Utah STEM ME alliance is a collaboration between Utah institutions: University of Utah (Lead and R1), Utah State University (R1), Weber State University (Masters L Institution), Salt Lake Community College (public community college), Snow College (public community college), Southern University of Utah (public university), Utah Tech University (Polytech university, formerly Dixie State University), and Utah Valley University (integrated public university and community college). The Utah STEM ME program proposes to create an alliance of 8 institutions in the state of Utah that fosters social integration of Utah STEM ME scholars through a cohort experience, supporting travel to conferences, virtual cohort gatherings twice a semester, programmatic visibility of Utah STEM ME in UCUR's annual conference, and access to virtual content to support growth. And the program fosters social integration for faculty and includes award recognition and opportunities to connect with other faculty through mentor program activities.



Funders, Sponsors, and Donors

Special thanks to all those who gave to OUR in 2022-2023.

Because of the wide-range of support OUR receives, we are a success.

PARTNERS

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Office of Undergraduate Research
Vice President for Research*

SPONSORS

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Dr. Annie Fukushima
Dr. Jan Kubanek
Dr. Jordan Gerton
Dr. Prafulla Martin-Garg & Dr. Vikram Garg
Dr. Theresa Martinez
Tyler Matsamas
Hunter Moreton
Lisa Nemelka
Dr. Dennis Parker & Mrs. Anne Parker
Dr. Vandana Ramachandran & Clayton Runnebohm
Dr. Melissa Watt
Dr. Guangzhen Wu
Mrs. Elizabeth Young

Appendix A: UROP Scholars

(Summer 2022-Summer 2023)

Architecture + Planning (4)

Samantha Eddy (Summer 2022)
Campeon Ramirez (Spring 2023)
Alexandra Turner (Fall 2022 and Spring 2023)
Pete Vawdrey (Spring 2023)

Business (3)

Rajeh Albugami (Spring 2023)
Asher Bess (Summer 2023)
Luis Ramirez (Fall 2022 and Spring 2023)

Cultural & Social Transformation (12)

Lilian Aguilar Garcia (Summer 2023)
Sandra Del Rio Madrigal (Spring 2023)
Hannah Early (Fall 2022 and Spring 2023)
Ximena Franco (Spring 2023)
Natalia Garrido (Fall 2022 and Spring 2023)
Holden Jones (Summer 2022)
Adam Montgomery (Fall 2022 and Spring 2023)
Lauren Rives (Summer 2023)
Elizabeth Russo (Fall 2022 and Spring 2023)
Miles Smith (Fall 2022)
Kadi Sow (Spring 2023)
Haley Tetzlaff (Spring 2023)

Dentistry (2)

Eliza Diggins (Fall 2022 and Spring 2023)
Alex Romano (Summer 2023)

Education (2)

Andrew Koenig (Spring 2023)
Benjamin Searle (Summer 2022)

Engineering (119)

Ruba Alraqibah (Fall 2022)
Aksel Anderson (Spring 2023 and Summer 2023)
Lauren Anderson (Spring 2023)
Kamry Bailey (Summer 2023)
Michael Barkdull (Fall 2022 and Spring 2023)

Nathan Bartlett (Fall 2022)
Radhika Bhakta (Fall 2022)
Milo Birdwell (Fall 2022 and Spring 2023)
Kin Blandford (Summer 2023)
Joseph Brignone (Fall 2022)
Cassandra Burdick (Fall 2022 and Spring 2023)
Ethan Carcas (Summer 2023)
Joe Christiansen (Spring 2023)
Clara Coffey (Fall 2022)
Aaron Coon (Summer 2022)
James Craig (Summer 2022 and Spring 2023)
Nichols Crawford Taylor (Fall 2022 and Spring 2023)
Andrei Dan (Fall 2022)
Lance Delos Reyes (Summer 2023)
Kerrigan Denham (Spring 2023)
Jason Dieu (Summer 2023)
Collin Dover (Summer 2022)
Michael Esplin (Fall 2022)
Abby Firth (Summer 2023)
Jensen Fobel (Spring 2023)
Tanner Frahm (Summer 2022 and Fall 2022)
Alexis Friedman (Summer 2022)
Yash Ghanathe (Spring 2023)
Emily Giesinger (Spring 2023 and Summer 2023)
Jeremi Godbout (Fall 2022)
Carlos Gonzalez (Fall 2022 and Spring 2023)
Verl Grant (Summer 2023)
Nicholas Greger (Fall 2022)
Josh Gubler (Spring 2023 and Summer 2023)
Kaysen Hansen (Summer 2022 and Spring 2023)
Liam Haynie (Summer 2022)
Quinn Hayward (Spring 2023)
Shing Hei Ho (Spring 2023 and Summer 2023)
Lindi Hopkins (Fall 2022)
Oliver Hubbard (Fall 2022)
Anna Huber (Spring 2023)
Justin Isaac (Summer 2023)
Rui Jin (Spring 2023 and Summer 2023)
Jacob Johnson (Spring 2023)
Dakota Jones (Fall 2022)
Jeewon Kim (Summer 2023)
Jun Ha Kim (Spring 2023)
Wona Kim (Summer 2022)
Wooyoung Kim (Summer 2023)

Yeonsu Kim (Summer 2023)
Jonas Knochelmann (Summer 2022)
Clara Kramer (Spring 2023)
Ryan Lam (Fall 2022 and Spring 2023)
Logan Lancaster (Spring 2023)
Alan Larrea Caro (Fall 2022)
Alexandra Leavitt (Summer 2022 and Fall 2022)
Andrew Lee (Spring 2023)
Joey Lee (Summer 2023)
Kevin Lee (Spring 2023 and Summer 2023)
Owen Leishman (Fall 2022)
Amelia Lessen (Fall 2022)
Sam Lewis (Summer 2023)
Sabrina Lin (Summer 2022)
Robert Lindemann (Fall 2022)
Maddie Lodico (Spring 2023 and Fall 2022)
Luke Loehding (Summer 2023)
William Loxley (Spring 2023 and Fall 2022)
Yiming Lu (Fall 2022)
Ty Lunde (Summer 2023)
Emily Lym (Summer 2022 and Spring 2023)
Christian Madsen (Fall 2022)
Jennafer Marsh (Summer 2023)
Bailey Martin (Fall 2022 and Spring 2023)
Lucia Mason (Spring 2023)
Garrett McClellan (Fall 2022)
Carson Minor (Spring 2023)
Hannah Morrison (Fall 2022)
Caden Myers (Fall 2022)
Mia Nelson (Fall 2022 and Spring 2023)
Khoi Nguyen (Fall 2022)
Phat Nguyen (Fall 2022)
Quinna Nguyen (Summer 2022 and Summer 2023)
Abbie Nistler (Spring 2023)
Taylor Ottley (Fall 2022 and Spring 2023)
Andrew Pack (Spring 2023 and Summer 2023)
Brayden Paul (Fall 2022)
Henry Peterson (Spring 2023)
George Polishchuk (Summer 2023)
Jesse Prime (Fall 2022 and Spring 2023)
Nathan Ramey (Summer 2022)
Zachary Rasmussen (Summer 2023)
Haven Redd (Summer 2023)

Appendix A: UROP Scholars - Continued

Engineering - Continued

Keegan Richardson (Fall 2022)
David Rou (Summer 2022)
Mathias Schoen (Fall 2022 and Spring 2023)
Lyndsey Schultz (Spring 2023)
Gabe Sherman (Summer 2023)
Tanner Short (Fall 2022)
Jack Shunn (Spring 2023)
Nate Soejima (Summer 2023)
Micah Spjute (Summer 2022)
Ada Stewart (Spring 2023)
Elise Stockham (Fall 2022 and Spring 2023)
Garrett Stoneman (Spring 2023 and Fall 2022)
Nathan Sudbury (Summer 2023)
Alex Tokita (Spring 2023)
Brendan Wagley (Fall 2022 and Spring 2023)
Tyler Walker (Summer 2023)
Nathan Wallace (Fall 2022)
Alexander Wallberg (Fall 2022)
Tyler Whitley (Summer 2022)
Stein Witt (Fall 2022)
Breanna Wong (Summer 2022)
Herbie Wright (Spring 2023 and Summer 2023)
Dobin Yang (Summer 2023)
Anna Yarema (Summer 2022)
Wyatt Young (Summer 2023)
Sammi Yu (Summer 2022)
Ien Zielinski (Summer 2023)

Fine Arts (8)

Tate Alexander (Summer 2023)
Pablo Ayala (Spring 2023)
Camden Barrett (Summer 2023)
Adah Bennion (Spring 2023)
Janice Bunker (Fall 2022)
Michael Palmer (Summer 2023)
Cayden Turnbow (Spring 2023)
Leisina Wolfgramm (Summer 2022)

Health (24)

Jasmine Arreguin (Summer 2023)
Haley Blomquist (Fall 2022 and Spring 2023)
Noah Bondi (Summer 2023)
Bennett Browning (Summer 2022)
Hunter Carlson (Fall 2022)
Alisha Chong (Spring 2023)
Calvin Coates (Summer 2022 and Fall 2022)
Tala Hammond (Summer 2022)
Kyle Harshany (Fall 2022 and Spring 2023)

Cameron Jensen (Fall 2022 and Spring 2023)
Noah Johnson (Fall 2022)
Anila Jonnavithula (Spring 2023)
Milo Light (Fall 2022 and Spring 2023)
Zachary Mallender (Summer 2022)
Emmanuel Onyeagba (Summer 2022 and Fall 2022)
Scott Orton (Fall 2022)
Isaac Ou (Fall 2022 and Spring 2023)
Nizhoni Porter (Fall 2022 and Spring 2023)
Kayla Rebentisch (Summer 2022)
Keaton Rosquist (Fall 2022 and Spring 2023)
Sophie Stephens (Fall 2022)
Jada Voth (Fall 2022 and Spring 2023)
Clara William (Summer 2022 and Fall 2022)
MacKenzie Woodrum (Fall 2022)

Honors College (25)

Nayla Rodriguez (Spring 2023)
Gillian Ruppel (Fall 2022 and Spring 2023)
Addison Bethards (Fall 2022 and Spring 2023)
Connor Blunt (Summer 2022)
Britta Bolander (Spring 2023)
John Bowden (Summer 2023 and Spring 2023)
Caleb Curtis (Summer 2023)
Joe de Lannoy (Spring 2023)
Pierce Dirkis (Spring 2023)
Kailee Ferret (Fall 2022)
Rachel Holland (Summer 2022)
Annie Jensen (Spring 2023)
Suzanne Kekoa (Spring 2023)
Bridget Kelly (Fall 2022)
Marco Leavitt (Summer 2023)
Kalista Leggitt (Spring 2023)
Melissa Lira (Summer 2023)
Casey Miller (Fall 2022)
Cody Page (Fall 2022)
Mel Palmer (Summer 2023)
Molly Rhodes (Spring 2023)
Luke Seaver (Spring 2023)
Trevor Vallieres (Spring 2023)
George West (Summer 2023)
Zeia Woodruff (Spring 2023)

Medicine (86)

Sam Aamodt (Fall 2022 and Spring 2023)
Teric Abunuwara (Fall 2022)

Diar Ahmed (Summer 2022)
Raghad Aljassimi (Fall 2022 and Spring 2023)
Ajak Arok (Fall 2022 and Spring 2023)
Nehal Bakshi (Fall 2022 and Spring 2023)
Danny Barrera (Spring 2023)
Austin Bender (Summer 2023)
Abbey Blair (Fall 2022 and Spring 2023)
Libby Brooks (Spring 2023)
Nia Brooks (Fall 2022 and Spring 2023)
Matt Chambers (Fall 2022 and Spring 2023)
Jui-Yi Chiou (Summer 2022 and Fall 2022)
Elijah Counterman (Spring 2023 and Fall 2022)
Jamie Covington (Fall 2022)
Joshua Crockett (Fall 2022)
Cameron Davis (Summer 2023)
Samantha Davis (Fall 2022)
Hannah Duron (Summer 2023)
Fatima Faizi (Fall 2022)
Jordyn Gagon (Fall 2022)
Jane Gardner (Fall 2022)
Shalyce Gardner (Summer 2022)
Danaya Geer (Fall 2022)
Anna Gilstrap (Fall 2022 and Spring 2023)
Divyam Goel (Fall 2022)
Dhruvan Gopinath (Spring 2023)
Alexa Gormick (Summer 2023)
Siqi Guo (Spring 2023)
Gabrielle Hadinger (Summer 2022)
Breydon Hardy (Summer 2023)
Audrey Hendaro (Fall 2022 and Spring 2023)
Samuel Hendry (Spring 2023 and Fall 2022)
Josh Hillyard (Summer 2022)
Isabelle Hong (Fall 2022)
Jonathan Hong (Summer 2022)
Alicia Horn (Fall 2022)
Nathan Iverson (Summer 2022)
Jasmine Jacobo (Fall 2022)
Jacob Jones (Fall 2022)
Abhilasha Khatri (Spring 2023)
Jennifer Kim (Fall 2022)
Peyton King (Summer 2023)
Mia Kowalczyk (Spring 2023)
Xander Kraus-McLean (Summer 2023)
Brian Kwak (Spring 2023)
Jack Landmesser (Summer 2022)

Appendix A: UROP Scholars - Continued

Medicine - Continued

Jordy Larrea Rodriguez (Fall 2022 and Spring 2023)
Andy Lee (Fall 2022)
Zihao Lyu (Summer 2022)
Lorrin Malady (Summer 2023)
Joshua Marchant (Fall 2022)
Travis Martinez (Fall 2022)
Matthew Michaud (Summer 2022)
Raina Miller (Summer 2022)
Erika Muhlrad (Fall 2022)
Ritika Nayan (Summer 2023)
Irvane Nelson (Fall 2022 and Spring 2023)
Carter Niedert (Fall 2022)
Carmen Nieznanski (Spring 2023 and Summer 2023)
Abby Niwa (Summer 2023)
Taylor Otterness (Fall 2022)
Yun Soo Park (Summer 2022)
Ethan Parker (Fall 2022)
Gosha Polishchuk (Spring 2023)
Nicholas Poll (Fall 2022)
Annie Pugmire (Fall 2022)
Catherine Rousculp (Fall 2022 and Spring 2023)
Morgan Smoot (Summer 2023)
Porter Stulce (Summer 2023)
Matyas Szilagyi (Summer 2023)
Devin Thomas (Spring 2023)
Ashley Thompson (Fall 2022)
Kiersten Thompson (Summer 2023)
Nick Thomson (Spring 2023 and Summer 2023)
River Tobias (Summer 2023)
Zach Tripp (Spring 2023)
Emilio Trujillo (Summer 2022 and Spring 2023)
Jon Urry (Fall 2022)
Kyle Valestrino (Summer 2023)
Rene Valles (Fall 2022)
Bridget Ward (Fall 2022)
Anya Weglarz (Summer 2022)
Alex Wiedemann (Fall 2022 and Spring 2023)
Jennie Wilson (Fall 2022)
Zane Zobell (Fall 2022)

Mines & Earth Sciences (15)

Logan Ashurst-McGee (Summer 2023)
Chloe Barry (Spring 2023)
Emma Boeman (Fall 2022)
Garrett Butler (Summer 2022 and Summer 2023)
Claire Cruz (Fall 2022 and Spring 2023)
Grant Daniels (Fall 2022 and Spring 2023)
Dewi Eagan (Summer 2022)
Maddie Festin (Spring 2023)
Autumn Hartley (Fall 2022 and Spring 2023)
Rachel Jorgensen (Fall 2022)
Angelina Miller (Spring 2023)
J.R. Murphy (Fall 2022)
Alec Phipps-Wirtz (Summer 2022 and Summer 2023)
Nancy Sohlberg (Summer 2022 and Fall 2022)
Tyler Yoklavich (Fall 2022 and Spring 2023)

Nursing (6)

Sofia Flowers (Summer 2023)
Michaela Lawson (Summer 2023)
Emma Norris (Spring 2023)
Brianna Oliveros (Spring 2023 and Summer 2023)
Kimberly Ponce Gonzalez (Fall 2022)
Haley Utendorfer (Spring 2023 and Summer 2023)

Pharmacy (11)

Jaden Arnold (Fall 2022)
Spencer Carstens (Summer 2022)
Gabrielle Desjardins (Fall 2022)
Eli Finlinson (Spring 2023)
Adam Ford (Fall 2022)
Lily Halberg (Summer 2023)
Kylee McManus (Fall 2022 and Spring 2023)
Sonia Osuna (Summer 2022 and Fall 2022)
CJ Reid (Fall 2022 and Spring 2023)
Matthew Stefanic (Fall 2022)
Miles Thomas (Summer 2022 and Fall 2022)

Science (69)

Nicole Amedee (Fall 2022 and Spring 2023)
Noah Armstrong (Fall 2022 and Spring 2023)
Arnel Besic (Fall 2022)
Bryce Bosworth (Summer 2022 and Fall 2022)
Alison Bouck (Summer 2022)
Georgia Brach (Fall 2022 and Spring 2023)
Jasper Bradford (Fall 2022)
Collin Caldwell (Fall 2022 and Spring 2023)
Ani Camacho (Spring 2023)
Janint Camacho (Summer 2023)
Michelle Cao (Summer 2022)
Quinlan Cassidy (Fall 2022)
Akila Chalapathi (Fall 2022 and Spring 2023)
Harold Chen (Summer 2023)
Noah Conner (Summer 2023)
Aidan Connor (Spring 2023)
America Cox (Summer 2022 and Fall 2022)
Sarah Crago (Fall 2022 and Spring 2023)
Alyssa Curtis (Spring 2023)
Abigail Darling (Fall 2022)
Sierra Davis (Fall 2022 and Spring 2023)
Andrew Erickson (Fall 2022 and Spring 2023)
Cannon Fehrenbach (Fall 2022)
Christian Furness (Fall 2022 and Summer 2022)
Clista Galecki (Fall 2022)
Audrey Glende (Spring 2023)
Kaan Goktepe (Spring 2023)
Parker Guzman (Spring 2023 and Summer 2023)
JC Herrmann (Fall 2022 and Spring 2023)
Joshua Hill (Summer 2022)
Jude Horsley (Fall 2022)
Caroline Keller (Fall 2022)
Daniel Koizumi (Fall 2022)
Sydney Larsen (Summer 2023)
Hannah Lee (Summer 2022 and Fall 2022)
Benvin Lozada (Fall 2022 and Spring 2023)
Julane Machado (Spring 2023)
Julianna Matteis (Spring 2023)
Victoria Medvedeva (Spring 2023)
Delaney Miller (Summer 2023)
Jackson Munn (Fall 2022)
Samantha Nestel (Spring 2023)

Appendix A: UROP Scholars - Continued

Science - Continued

Hoang Nguyen (Fall 2022)
Ali Nopper (Summer 2023)
Micaela Olivares (Summer 2023)
Claire Palmer (Fall 2022)
Alice Parker (Spring 2023)
Gary Perea (Summer 2022)
Scott Perkins (Spring 2023)
Mikal Peterson (Summer 2022 and Fall 2022)
Julia Petheram St. Andre (Summer 2022)
Kiyanna Porter (Spring 2023 and Summer 2023)
Bridget Raymundo (Summer 2023)
Maddox Riewald (Summer 2023)
Ana Rowe (Summer 2022)
Emily Sageser (Spring 2023)
Olivia Schmitz (Fall 2022 and Spring 2023)
Mitchell Spendlove (Summer 2022)
Jacob Strong (Spring 2023)
Marcus Tanner (Fall 2022 and Spring 2023)
Quyen Tran (Fall 2022 and Spring 2023)
Anastasia Varela (Summer 2023)
Rachel Whipple (Fall 2022)
Marc Whiting (Summer 2022)
Claudia Wiese (Fall 2022)
MacKenzie Woodrum (Spring 2023)
Anuhya Yalavarty (Spring 2023)
Bailey Young (Spring 2023)
Nikolai Zarandona (Summer 2022)

Social & Behavioral Science (76)

Evelyn Acosta (Fall 2022 and Spring 2023)
Callie Avondet (Fall 2022)
Theodore Baende (Spring 2023)
Jacob Berryhill (Fall 2022)
Winky Boody (Spring 2023)
Kerrigan Bunker (Spring 2023)
Emalee Carroll (Fall 2022 and Spring 2023)
Sophia Chernosky (Spring 2023)
Piper Christian (Fall 2022)
Eamon Christiansen (Summer 2023)
Jordan Davidson (Spring 2023)
Hailee Davis (Spring 2023 and Summer 2023)
Nina de Vos (Spring 2023)
Julia Decker (Spring 2023)
Shane Denherder (Summer 2022)
Jeff Dillon (Spring 2023 and Summer 2023)

Tyler Endow (Fall 2022)
Isabelle Forrest (Fall 2022 and Spring 2023)
Emma Glende (Summer 2022)
SuYeon Gwak (Fall 2022)
Gabriel Hammond (Summer 2023)
Amy Harvey (Fall 2022 and Spring 2023)
Kylee Haslam (Spring 2023)
Brendan Hatch (Spring 2023)
Samuel Hoffman (Spring 2023 and Fall 2022)
Taylor Holladay (Fall 2022)
Amanda Holt (Summer 2023)
Izzy Hong (Summer 2023)
Aaron Ibarra (Fall 2022 and Spring 2023)
Lauren Isom (Spring 2023)
Jack Jowers (Fall 2022)
Saey Kamtekar (Fall 2022)
Samantha Kight (Fall 2022)
Sydney Kincart (Fall 2022 and Spring 2023)
Karena Klinkenberg (Spring 2023)
Halisha Knipe (Summer 2023)
Jensen Koff (Spring 2023)
David Lee (Spring 2023)
Benning Lozada (Fall 2022 and Spring 2023)
Kitsel Lusted (Spring 2023)
Marin Macfarlane (Summer 2022 and Fall 2022)
Caroline Martin (Fall 2022)
Julia Martin (Fall 2022)
Rose McLaughlin (Fall 2022)
Corinna McMurtrey (Fall 2022 and Spring 2023)
Carson Miller (Spring 2023)
Seunghee Moon (Summer 2023)
Nura Mostaghimi (Fall 2022 and Spring 2023)
Misty Myers (Spring 2023)
Andrew Nielsen (Summer 2023)
Tara Olson (Fall 2022)
Isaiah Ortiz (Spring 2023)
Lauren Page (Fall 2022 and Spring 2023)
Haley Parsons (Spring 2023)
Nancy Pasillas (Spring 2023)
Katya Podkovyroff Lewis (Fall 2022 and Spring 2023)
Alicia Quick (Summer 2022 and Fall 2022)
Jade Ramirez-Barraza (Summer 2023)
Inakhshmi Rashid (Fall 2022 and Spring 2023)
Alyssa Richards (Fall 2022)

Jacob Richins (Fall 2022 and Spring 2023)
Mary Roalstad (Fall 2022)
Talon Roberts (Fall 2022 and Spring 2023)
Topher Roller (Fall 2022)
Camille Schadl-Romero-Oak (Fall 2022 and Spring 2023)
Lauren Shields (Spring 2023)
Marti Sorensen (Fall 2022 and Spring 2023)
Brennan Stock (Spring 2023)
Matt Storie (Spring 2023)
Sofia Thoms (Spring 2023 and Fall 2022)
Macey Tilk (Fall 2022)
Melissa Tyszko (Fall 2022 and Spring 2023)
Maya Upton (Spring 2023)
Emma Videla (Spring 2023)
Martha Werner (Fall 2022)
Sierra Young (Summer 2022)

Appendix B: UROP Faculty Mentors (Summer 2022-Summer 2023)

Architecture + Planning (4)

Summer 2022

Shundana Yusaf

Fall 2022

Alessandro Rigolon

Spring 2023

Milad Mozari

Alessandro Rigolon

Joerg Ruegemer

Business (3)

Fall 2022

Lyda Bigelow

Spring 2023

Lyda Bigelow

Amelia Stillwell

Summer 2023

Sara Malik

Cultural & Social Transformation (7)

Summer 2022

Claudia Geist

Fall 2022

Annie Fukushima

Claudia Geist

Kim Hackford-Peer

Ed A. Munoz

Spring 2023

Ana Carolina Antunes

Annie Fukushima

Claudia Geist

Alborz Ghandehari

Kim Hackford-Peer

Ed A. Munoz

Thomas Swensen

Summer 2023

Claudia Geist

Annie Fukushima

Dentistry (1)

Fall 2022

Melodie Weller

Spring 2023

Melodie Weller

Summer 2023

Melodie Weller

Education (2)

Summer 2022

Lauren Barth-Cohen

Spring 2023

Paton Roden

Engineering (67)

Summer 2022

Rogelio Cardona-Rivera

Chuck Dorval

Daniel Drew

Tao Gao

Jake George

Yong Lin Kong

Jan Kubanek

Alan Kuntz

Swomitra Mohanty

Shahrazad Roshankhah

Frank Sachse

Jennifer Weidhaas

Heayoung Yoon

Fall 2022

Jeffrey Bates

Edoardo Battaglia

Dmitry Bedrov

Robert Bowles

Marc Calaf

Brittany Coats

Chuck Dorval

Cynthia Furse

Pierre-Emmanuel Gaillardon

Tao Gao

Hamid Ghandehari

Ashley Guajardo

Tom Henderson

Tucker Hermans

Edward Hsu

Priyank Kalla

Marina Kogan

Yong Lin Kong

Jessica Kramer

Alan Kuntz

Tommaso Lenzi

Mark Minor

Kay Park

Shahrazad Roshankhah

Russell Stewart

Luke Timmins

Chen Wang

Jennifer Weidhaas

Ling Zang

Thomas Zangle

Spring 2023

Jeff Bates

Edoardo Battaglia

Dmitry Bedrov

Robby Bowles

Owen Chan

Chuck Dorval

Tao Gao

Jake George

Tucker Hermans

Huiwen Ji

Priyank Kalla

Jay Kim

Alan Kuntz

Tommaso Lenzi

Rob MacLeod

Ana Marasovic

Josh McCrain

Bobby Mohanty

Ken Monson

Stefan Nagy

Prashant Pandey

Chris Pantelides

Kay Park

Jeff Phillips

Fernando Rodríguez

Shahrazad Roshankhah

AShutosh Tiwari

Chen Wang

Dave Warren

Haohan Zhang

Summer 2023

Amir Arzani

Robby Bowles

Deisy Cristina Carvalho Fernandes

Jiyoung Chang

Stavros Drakos

Daniel Drew

Henry Fu

Tucker Hermans

Robert Hitchcock

Jay Kim

Jan Kubanek

Appendix B: UROP Faculty Mentors - Continued

Engineering - Continued

Alan Kuntz
Rob MacLeod
Juan Medina
Rajesh Menon
Kami Mohammadi
Swomitra Mohanty
Ken Monson
Stefan Nagy
Pania Newell
Alex Novoselov
Luke Timmins
Pai Wang
Shundana Yusaf
Thomas Zangle
Haohan Zhang
Peter Zhu

Fine Arts (7)

Summer 2022

Meekyung MacMurdie

Fall 2022

Jane Hatter

Spring 2023

Sonia Albert Sobrino
Wendy Wischer

Summer 2023

Alexandra Harbold
Hubbel Palmer
Brian Snapp

Health (14)

Summer 2022

Genevieve Albouy
Sihem Boudina
Jesse Christensen
Christopher Depner
Will Holland
Jessie King Jensen

Fall 2022

Genevieve Albouy
Sihem Boudina
Amandine Chaix
Jesse Christensen
Peter Fino
Raj Ghosh
Tanya Halliday
Will Holland
Bradley King
Stacy Manwaring
Anandh Babu Pon Velayutham
David Symons

Spring 2023

Christopher Depner
Peter Fino
Raj Ghosh
Tanya Halliday
Will Holland
Brad King
Stacy Manwaring
Anandh Babu Pon Velayutham
J David Symons

Summer 2023

Peter Fino
Anandh Babu Pon Velayutham

Honors College (1)

Fall 2022

Michael Gills

Spring 2023

Michael Gills

Humanities (18)

Summer 2022

Maureen Mathison
Margaret Wan

Fall 2022

Alexis Christensen
Aniello De Santo
Tanya Flores
Leslie Francis
Kendall Gerdes

Spring 2023

Maile Arvin
Dave Bresnahan
Aniello De Santo
Tanya Flores
Mira Green
Gema Guevara
Matt Haber
Eric Herschthal
Ashton Lazarus
Peter Roady

Summer 2023

Dave Bresnahan
Alexis Christensen
Beth Clement
Trace Daniels Lerberg
Mira Green
David Roh

Medicine (55)

Summer 2022

Anna Beaudin
Dipayan Chaudhuri
Clement Chow
Nicholas Frost
Heath Henninger
Kent Lai
Scott Langenecker
Ben Myers
Allison Payne
Yan-Ting Shiu
Melissa Watt
Jun Yang
Moriel Zelikowsky

Fall 2022

Kurt Albertine
Katie Basham
Anna Beaudin
Edgar Bruce
Owen Chan
Clement Chow
Donna Cross
Rebecca Delaney
Emily Dennis
Brian Evavold
Candace Floyd
Man Hung
Lindsay Keegan
Vincent Koppelmans
Tracey Lamb
Matthew Mulvey
Joe Palatinus
Sungjin Park
Dennis Parker
Allison Payne
Marcus Pezzolesi
Vicente Planelles
Candace Reno
Jared Rutter
Punam Sawant-Pokam
Alex Shcheglovitov
Peter Shen
Benjamin Spike
Kristi Warren
Dustin Williams
Brandi Wynne
Moriel Zelikowsky

Spring 2023

Anna Beaudin
Kurt Albertine
Katie Basham
Anna Beaudin
Robert Campbell
Donna Cross
Rebecca Delaney

Appendix B: UROP Faculty Mentors - Continued

Medicine - Continued

Stavros Drakos
Stephen Kimani
Tracey Lamb
Daniel Leung
Troy Madsen
Matthew Mulvey
Natasha Pavlova
Marcus Pezzolesi
Nirupama Ramkumar
Candace Reno-Bernstein
Matthew Rondina
Jared Rutter
Peter Shen
Yan-Ting Shiu
Benjamin Spike
Michele Villalobos
Kristi Warren
Dustin Williams

Summer 2023

Dipayan Chaudhuri
Gregory Ducker
Justin English
David Grunwald
Heath Henninger
Panagiotis Kassavetis
Tracey Lamb
Daniel Leung
Douglas Mackay
Yan-Ting Shiu
Dustin Williams
Brandi Wynne
Moriel Zelikowsky

Mines & Earth Sciences (10)

Summer 2022

Leif Anderson
Gannet Hallar
Kathleen Ritterbush

Fall 2022

Leif Anderson
Gannet Hallar
Randall Irmis
Steve Krueger
Sarah Lambert
Mark Loewen
Kip Solomon

Spring 2023

Leif Anderson
Jamie Farrell
Gannet Hallar
Steve Krueger
Kip Solomon
Michael Thorne

Summer 2023

Leif Anderson
Kathleen Ritterbush

Nursing (4)

Fall 2022

Kathie Supiano

Spring 2023

Lauri Linder
Sara Simonsen

Summer 2023

Lauri Linder
Rebekah Perkins

Pharmacy (7)

Summer 2022

Shreya Goel
Peter West
Karen Wilcox

Fall 2022

Katharine Diehl
Shreya Goel
David Grainger
Jindrich Kopecek
Peter West
Karen Wilcox

Spring 2023

Shreya Goel
David Grainger
Karen Wilcox

Summer 2023

Mei Yee Koh

Science (40)

Summer 2022

Ben Bromley
Shanti Deemyad
Summer 2022
Bryn Dentinger
Jordan Gerton
Wesley Hamilton
Jack Longino
Ryan Looper
Sandy Parkinson
Nitin Phadnis
Caroline Saouma
Michael Werner

Fall 2022

Fred Adler
Bill Anderegg
Connor Bischak
Ben Bromley
Sophie Caron

Dale Clayton
Bryn Dentinger
Vikram Deshpande
Gina Frey

Jordan Gerton
Martin Horvath
Sean Howe

Talia Karasov
Jack Longino
Shelley Minteer
Nitin Phadnis

Aaron Puri
Andrew Roberts
Caroline Saouma
Joshua Steffen

Michael Werner
Heejin Yoo
Yue Zhao
Jingyi Zhu

Spring 2023

Ben Bromley
Sarah Bush
Sophie Caron
Fabienne Chevance

Dale Clayton
Shanti Deemyad
Gina Frey
James Gagnon

Jordan Gerton
Martin Horvath
Alicia Lamarche
Yao-Yuan Mao

Nitin Phadnis
Aaron Puri
Jon Rainier
Andrew Roberts

Ofer Rog
Mike Shapiro
Michael Werner
Luisa Whittaker-Brooks

Ayako Yamaguchi
Chan Yul Yoo
Heejin Yoo
Jingyi Zhu

Summer 2023

Sarah Bush
Fabienne Chevance
Martin Horvath
Shelley Minteer

Eric Montoya
Nitin Phadnis
Aaron Puri
Andrew Roberts

Joshua Steffen
Heejin Yoo

Appendix B: UROP Faculty Mentors - Continued

Social & Behavioral Science (35)

Summer 2022

Adrienne Cachelin
Elisabeth Conradt
Kim Korinek

Fall 2022

Lisa Aspinwall
Cindy Berg
Larry Coats
Elisabeth Conradt
Philip Dennison
Lisa Diamond
Matt Euler
Jessie Fan
Jennifer Follstad Shah
Sara Grineski
Akiko Kamimura
Shane Macfarlan

Tom Maloney
Rebecca Owen
Brennan Payne
Mitchell Power
Lee Raby
Phillip Singer

Spring 2023

Lisa Aspinwall
Katie Baucom
Andrea Brunelle
Adrienne Cachelin
Jackie Chen
Larry Coats
Elisabeth Conradt
Sarah Creem-Regehr
Lisa Diamond
Frank Drews
Tyler Faith
Rick Forster
Cory Inman

Akiko Kamimura
Karen Kramer
Andrew Linke
Shane Macfarlan
Tom Maloney
Ken Monson
Rebecca Owen
Brennan Payne
Mitchell Power
Sonia Salari
Phillip Singer

Summer 2023

Adrian Bell
Jackie Chen
Akiko Kamimura
Lee Raby
Sarah Small
Tim Webster

Appendix B: UROP Graduate Student Mentors (Summer 2022-Summer 2023)

Engineering (8)

Summer 2022

Eugene Kwan
Andrew Miller
Nick Witham

Fall 2022

Monika Buczak
Carena Cornelssen
Eugene Kwan
Caleb Thomson

Spring 2023

Connor Olsen
Caleb Thomson

Summer 2023

Julia Dunn
Connor Olsen

Medicine (8)

Fall 2022

Jordan Grammer
Diane Hernandez
Amy Lenz
Gennie Parkman
Crystal Sigulinsky
Zach Wilson

Spring 2023

Amy Lenz
Caleb Thomson

Summer 2023

Nicole Pershing

Mines & Earth Sciences (1)

Fall 2022

Emily Cunningham

Spring 2023

Emily Cunningham

Science (5)

Summer 2022

Thomas King

Fall 2022

Thomas King
Dylan Klure

Spring 2023

Austin Green
Selvi Kara
Dylan Klure

Summer 2023

Maggie Doolin
Selvi Kara

Social & Behavioral Science (6)

Summer 2022

Amy McDonnell

Fall 2022

Janae Chandler
Amy McDonnell
Stella Mosher
Kaedan O'Brien
Jack Silcox

Spring 2023

Janae Chandler
Amy McDonnell
Stella Mosher
Kaedan O'Brien

Summer 2023

Rob Warner

Appendix C: SPUR Scholars

(Summer 2022-Summer 2023)

Architecture + Planning

2022 (1)

Olivia Vielstich

2023 (1)

Wynton Jarvinen

Cultural & Social Transformation

2022 (1)

Natalia Garrido

2023 (1)

Aaliyah Henderson

Dentistry

2022 (1)

Brenda Acosta

Education

2022 (2)

Luke Kim

Mary Smith

2023 (2)

Jordan Giron

Abigail McWhirte

Engineering

2022 (5)

Andrew Bergenthal

Gabrielle Bingener

William Hamrick

Jacob Hirst

Thomas Kauffman

2023 (5)

Siddharth Dhumal

Joseph Gilsoul

Manya Murali

Zachary Olson

Abigail Stringfellow

Health

2022 (3)

Sarah Haysley

Jade Robinson

Keaton Rosquist

2023 (7)

Owen Benzley

Fernanda Guzman

Taylor James

Yulisa Padilla-Fragosso

Riley Page

Paulina Vargas

Megan Weaver

Humanities

2022 (1)

Eliana Massey

2023 (3)

Callie Avondet

Christen Daniel

Abril Vale-Luzardo

Medicine

2022 (13)

Camden Alexander

Sarah Bayardo

Austin Bender

Samuel Evans

Jacqueline Gomez

Naomi Guerrero Reyes

Seunga Han

Jordy Larrea Rodriguez

Marlon Lopez

Monica-Rae Owens

Catherine Petersen

Kevin Ramos

Bridget Ward

2023 (16)

Laila Batar

Porter Bischoff

Meghan Carter

Ariyanna Clark-Drew

Andrew Clothier

Ashley Cluff

Ryan De Los Santos

Ryan Gardner

Tashianna Gray

Charles Hayward

Grace Makassa

Aryana Merritt-Johnson

Breanka Moore

Olivia Raines

Jonah Simmons

Naomi Thombs

Mines & Earth Sciences

2022 (3)

Gabriel Baffour (2022)

Jessica Cuello (2022)

Rachel D'Agostini (2022)

2023 (1)

Marcus Tanner (2023)

Nursing

2023 (1)

Irene Liang

Pharmacy

2022 (1)

Ananya Kuma

2023 (1)

Jane Staples

Science

2022 (4)

Marco R Castaneda Martinez

Tenzin Norzom

Tejashree Prakash

Eleanor Wachtel

2023 (4)

Mason Burden

Emily Dalley

Hailey Hollins

Rebecca MacGillvray

Social & Behavioral Science

2022 (2)

Hope Caviness

Tara Olson

2023 (11)

Cindy Diaz Rey

Jacqueline Gomez

Mauro Gonzalez

Eunseo Han

Anna Hsu

Michael Joyfull Komigi

Angela Lezaic

Lillian MacKinney

Maiko Okamura

Siena Popiel

Kevin Ramos

Social Work

2022 (1)

Audrey Pozernick

Appendix D: SPUR Scholars

(Summer 2022-Summer 2023)

Architecture + Planning

2022 (1)

Ivis Garcia Zambrana

2023 (1)

Divya Chandrasekhar

Cultural & Social Transformation

2022 (1)

Claudia Geist

2023 (1)

Andrea Baldwin

Dentistry

2022 (1)

Melodie Weller

Education

2022 (1)

José Gutiérrez

2023 (1)

Lauren Barth-Cohen

Engineering

2022 (5)

Jacob George

Jan Kubanek

Sameer Patil

Jason Wiese

Haohan Zhang

2023 (5)

Jacob George

Alex Novoselov

Sameer Patil

Roseanne Warren

Haohan Zhang

Health

2022 (3)

Skyler Jennings

Bradley King

Anandh Babu Pon Velayutham

2023 (5)

Genevieve Albouy

Rajeshwary Ghosh

Rhonda Nelson

Jeff Rose

Kota Takahashi

Humanities

2022 (1)

Matthew Basso

2023 (3)

Jennifer Andrus

Maile Arvin

Crystal Lumpkins

Medicine

2022 (10)

Owen Chan

Scott Collingwood

Gregory Ducker

Ram Gouripeddi

Adam Hughes

Joseph Kim

Anne Kirchhoff

Amy Lenz

Erin McGlade

James VanDerslice

2023 (15)

Amanda Bakian

Kelly Baron

Kanokwan Bunsawat

Dipayan Chaudhuri

Julio Facelli

Mia Hashibe

Kylie Jacobs

Amy Lenz

Xiaodong Ma

April Mohanty

Kola Okuyemi

Brock O'Neil

George Vega Yon

Megan Williams

Zachary Wilson

Mines & Earth Sciences

2022 (2)

Daniel Mendoza

Xuming Wang

2023 (1)

Leif Anderson

Nursing

2023 (1)

Djin Tay

Pharmacy

2022 (1)

Shreya Goel

2023 (1)

Nitish Khurana

Science

2022 (4)

William Anderegg

Regina Frey

James Gagnon

Joshua Steffen

2023 (4)

Connor Bischak

Shanti Deemyad

Regina Frey

James Gagnon

Social & Behavioral Science

2022 (2)

Lisa Diamond

Brennan Payne

2023 (8)

Tabitha Benney

Juliet Carlisle

David De Micheli

Sara Grineski

Cory Inman

Brennan Payne

Phillip Singer

Rebecca Utz

Social Work

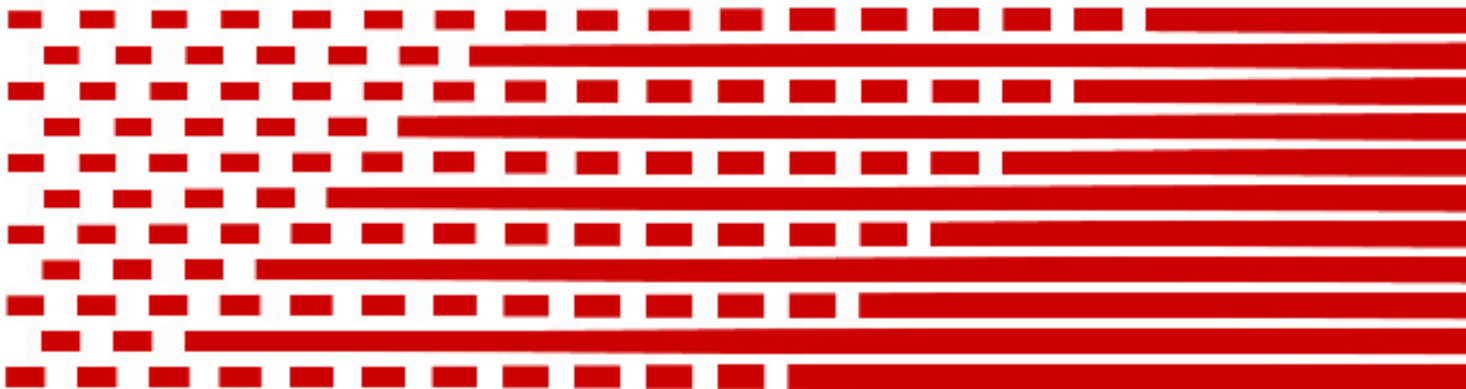
2022 (1)

Tiffany Baffour

NOTE

Data captured in this report reflects programs and activities between 2015 and 2023, with particular emphasis on 2022 to 2023 academic year.

Questions? Contact Dr. Annie Isabel Fukushima at our@utah.edu or visit our.utah.edu.



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