

2022 UNDERGRADUATE RESEARCH DAY

Elizabeth D. Rockwell Pavilion, The Honors College, & M.D. Anderson Library

Thursday, April 14, 2022 www.uh.edu/urday

CONNECT

Connect with the Office of Undergraduate Research and Major Awards

Email undergrad-research@uh.edu with your full name and email address to receive information about events and deadlines related to undergraduate research and nationally competitive fellowships and major awards.

Follow @UHOURMA on Instagram and Facebook.



APPLY

Senior Honors Thesis

To enroll in the **Senior Honors Thesis** for Fall
2022, students must
submit their Verification of
Eligibility form and General
Petition by **May 15, 2022**.

Students continuing in the thesis program must register for 4399 (or department equivalent) for Fall 2022.

Fulbright

The campus deadline to apply for a Fulbright U.S. Student Program grant for 2023-2024 is **September 2, 2022**.

Email Ben Rayder at **btrayder@uh.edu** for more information.

REACH

The Research for Aspiring Coogs in the Humanities program provides a \$1,500 scholarship and mentored research experience contributing to an existing campus project in the humanities.

Learn more and apply at www.uh.edu/reach by September 7, 2022.

2022 UNDERGRADUATE RESEARCH DAY

Thursday, April 14, 2022

Elizabeth D. Rockwell Pavilion 2nd floor, M.D. Anderson Library The Honors College

3:30 p.m. – 4 p.m. | Welcome and Remarks to Presenters

Location: Elizabeth D. Rockwell Pavilion

Paula Myrick Short, Ph.D.

Senior Vice Chancellor for Academic Affairs, University of Houston System Senior Vice President for Academic Affairs and Provost, University of Houston

Amr Elnashai, FREng

Vice Chancellor for Research and Technology Transfer, University of Houston System Vice President for Research and Technology Transfer, University of Houston

Stuart A. Long, Ph.D.

John and Rebecca Moores Professor, Associate Dean of Undergraduate Research and the Honors College, University of Houston

Rikki Bettinger, Ph.D.

Associate Director, Office of Undergraduate Research and Major Awards, University of Houston

4 p.m. – 6 p.m. | Viewing of Student Posters

Location: Elizabeth D. Rockwell Pavilion, M.D. Anderson Library, and the Honors College

Thank you to the Office of the Provost, the Division of Research, the Honors College, the Cullen College of Engineering, and the College of Liberal Arts and Social Sciences for their generous support of the Office of Undergraduate Research and Major Awards.

WELCOME

Welcome to Undergraduate Research Day...

...and welcome back! This year not only marks the 17th anniversary of Undergraduate Research Day, it also represents the return of the University of Houston's premier research exhibition to the MD Anderson Library Building. We are excited for you to experience the energy and spirit of Undergraduate Research Day in person again or for the very first time. Through Undergraduate Research Day, we aspire to connect undergraduate researchers to other students, faculty, staff, and professionals in industry to showcase their work. We encourage you to speak with individual presenters, ask questions, and provide input about their research.

Undergraduate Research Day is a collaborative effort between the Office of Undergraduate Research and Major Awards, the Honors College, and the MD Anderson Library that highlights the diverse range of research projects carried out by University of Houston undergraduate students. The 2022 presenters include students from programs such as the Summer Undergraduate Research Fellowship (SURF), Action Research in Communities (ARC), Provost's Undergraduate Research Scholarship (PURS), Mellon Research Scholars Program, Research for Aspiring Coogs in the Humanities (REACH), and many others who conducted research under the guidance of University of Houston faculty in the past year. We are excited to celebrate the research of UH undergraduates, and they are eager to share their projects with you.

Like many others around the campus community, the Office of Undergraduate Research and Major Awards used the pandemic as an opportunity to reset and retool. Many of our staple programs continued to thrive as students returned to the lab, the archives, and other research settings. Fifty students defended their senior honors theses, 48 underclassmen learned more about the fundamentals of research through HERE, and over 130 faculty-mentored research projects were funded through the SURF and PURS programs. Thanks to the generous support of Provost Paula Myrick Short, twice as many students will be awarded PURS stipends for the 2021-2022 academic year. We also introduced new programs to meet critical needs. With the support of a CITE grant, two cohorts of students have now participated in Action Research in Communities. This year-long program allows students to to combine research with service learning in the local community to better understand and address some of Houston's most important issues. This past year also marked the start of Research for Aspiring Coogs in the Humanities. REACH provides an introductory research experience for students in humanities disciplines by connecting a dozen students to existing undergraduate research projects at the University of Houston, including "SYRIOS," "Black. Migration. Houston.," and "Recovering the US Hispanic Literary Heritage" projects, to name but a few. We hope that REACH will create more pathways for students looking to pursue research in the humanities, support the tremendous work of our UH faculty and staff, and provide a recruiting pipeline for the Mellon Research Scholars program.

Our presenters have collaborated with faculty mentors from 13 colleges in programs as diverse as Industrial Design, Ophthalmology, Earth and Atmospheric Sciences, and English. Faculty at the University of Houston are dedicated to mentoring students in the pursuit of advancing knowledge in their fields and are always looking for ways to advocate for students' success. Students involved with faculty-mentored research in programs such as the Mellon Research Scholars, ARC, REACH, SURF, or PURS have unique opportunities to develop skills through problem solving, communication, leadership, and critical thinking.

The pandemic did not impede UH's emergence as a fellowships powerhouse. Quite the contrary, last year, UH registered more fellowship recipients, finalists, and alternates than ever before (69). In addition, UH students were named a Gates Cambridge Scholar and a Knight-Hennessy Scholar for the first time in UH history. For the second time in three years, two undergraduates received the prestigious Barry Goldwater Scholarship for excellence in STEM. UH also posted its most ever Critical Language Scholarship recipients when nine students were

selected to study Russian, Arabic, Urdu, and Mandarin. Most notably, with the supportive leadership of Provost Short, 10 Coogs were named Fulbright recipients, thus establishing the University of Houston as a Top Producing Fulbright Institution for the second time in three years. Only one other Texas research university achieved the same honor. The success of Fulbright and CLS is further evidence of the University of Houston's commitment to global education and its role as an international institution.

We are also seeing more UH students taking advantage of research-related internships. A record 11 students were selected for the DAAD RISE program to conduct research abroad in Germany. While some students carried out their projects virtually, others worked directly in Germany during the pandemic. Additionally, UH was invited to participate in a new research initiative. In collaboration with MD Anderson, four UH students performed cancer research last summer as part of the Partnership for Careers in Cancer Science and Medicine. Six more students will participate in the program for this upcoming summer. Whether in the Houston Medical Center, the Third Ward, or labs across the world, our students are demonstrating why UH is a Carnegie-Designated Tier One Public Research University.

The Office of Undergraduate Research and Major Awards welcomed a new staff member in 2021. Victoria Jupp joined as a Program Manager after completing her Master's in Public Policy from the Hobby School at UH. A researcher herself with aspirations to continue her graduate studies, Victoria is currently co-authoring a manuscript with Dr. Michelle Belco about executive policymaking for African-Americans that analyzes a novel dataset of presidential directives. Victoria holds a Bachelor of Arts in Advertising with a minor in Law, Values, and Policy from the University of Houston. Students interested in getting started in research, the Houston Early Research Experience (HERE), and the SURF program should contact Victoria for more information.

Two student workers also joined OURMA this past year. Citlali Chavana supports Dr. Rikki Bettinger with the Mellon Research Scholars Program and additional special projects for the Office. Citlali is majoring in Communication Sciences and Disorders with a minor in Sociology. A former Mellon Research Scholar, Citlali researched educational disparities and health inequalities in Black and Brown communities through a sociological perspective. She hopes that her research will influence law and policy makers to better serve these neglected populations.

Carl Suerte, a recent alum who was named the 2021 NSM Student of the Year, is an ambassador for both undergraduate research and fellowships. Carl has participated in nearly every OURMA program, including HERE, Houston Scholars, SURF, and PURS. He was awarded a prestigious Fulbright Research grant to develop a high-performance tool to study the brain in Tokyo, Japan and will start his work there this April.

The Office of Undergraduate Research and Major Awards would like to thank the Office of the Provost, the Division of Research, the Honors College, UH Libraries, the Cullen College of Engineering, the College of Liberal Arts and Social Sciences, and the many other colleges and departments on campus for their support of undergraduate research programs at the University of Houston. The programs featured here today would not be possible without the support of our campus partners (please see page 6 for listing of supporters).

Thank you for joining us for this year's celebration of undergraduate research at the University of Houston. As you speak with the presenters, we hope you find opportunities to connect across disciplines and ask questions about how we can address some of today's most pressing questions together. Now, more than ever, we acknowledge and appreciate the need for a cohesive global research community. We believe that is the type of community you will see modeled by our presenters today.



Stuart Long



Ben Rayder



Rikki Bettinger



Victoria Jupp



Nimra Zubair



Citlali Chavana



Carl Suerte

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The Office of Undergraduate Research and Major Awards

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M.D. Anderson Library
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UndergraduateResearch.uh.edu
undergrad-research@uh.edu
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Julia Brown,
Communications Coordinator,
The Honors College

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OFFICE OF UNDERGRADUATE RESEARCH AND MAJOR AWARDS



OURMA PROGRAMS

THE HOUSTON EARLY RESEARCH EXPERIENCE (HERE) is a two-week research program in May intended to orient rising sophomore and junior undergraduates to the fundamentals of conducting research. HERE awards \$1,000 scholarships to students with at least a 3.5 GPA. uh.edu/here

THE SUMMER UNDERGRADUATE RESEARCH FELLOWSHIP (SURF) is a full-time, ten-week summer research program for students and provides a \$4,000 scholarship to conduct research under the mentorship of a UH faculty member. Students from all disciplines with at least a 3.0 GPA are encouraged to apply. uh.edu/surf

THE PROVOST'S UNDERGRADUATE RESEARCH SCHOLARSHIP (PURS) is a part-time, semester-long research program and awards a \$1,000 scholarship for students to work one-on-one with a faculty mentor. This scholarship is open to students from all colleges and disciplines. Candidates must have at least a 3.0 grade point average to apply. uh.edu/purs

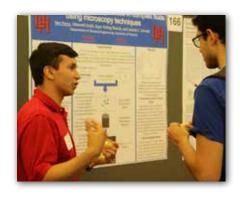
THE MELLON RESEARCH SCHOLARS PROGRAM is for upper level students from historically marginalized backgrounds interested in conducting research and attending graduate studies in the humanities. Mellon Scholars participate in a faculty-led seminar series to learn more about research opportunities in the humanities, receive \$1,100 to participate in a two-week camp on applying to

graduate school, earn \$3,900 to conduct a full-time summer research project under the mentorship of a University of Houston faculty mentor, and conclude the program by either completing an independent study or Senior Honors Thesis during their senior year. uh.edu/mellonscholars

THE SENIOR HONORS THESIS is a capstone program for a student's undergraduate career in research. Open to all UH students, participants enroll in 3399 and 4399, a total of six hours of coursework, which is typically applied toward their major degree requirements during their senior year. For more information, visit the thesis website at uh.edu/seniorhonorsthesis.

THE RESEARCH FOR ASPIRING COOGS IN THE HUMANITIES (REACH) PROGRAM at the University of Houston is a collaborative effort supported by the Cougar Initiative to Engage and the Office of Undergraduate Research and Major Awards. REACH provides a year-long introductory research experience for students in humanities disciplines by connecting a dozen students to existing research projects at the University of Houston. Students from humanities disciplines are encouraged to apply. uh.edu/reach

Need more info? Email: undergrad-research@uh.edu







THE HONORS COLLEGE

THE HONORS COLLEGE PHILOSOPHY

The Honors College at the University of Houston serves the intellectual needs of gifted undergraduates in more than 100 fields of study. We provide the careful guidance, flexibility, and personal instruction that nurture excellence. We offer the University's finest students **the best of both worlds**—the community and advantages of a small college together with the resources and rich diversity of a large research university. Our faculty and staff believe that a university education should offer more than the acquisition of skills for the workplace. The Honors College challenges students to develop the attributes of mind and character that enhance all facets of life.

HONORS CURRICULUM

Our curriculum is designed to coordinate with all majors and degree plans offered at the University of Houston. You will fulfill many of your University core requirements through Honors courses that take the place of regular required classes. One key sequence of courses, The Human Situation, is team-taught by Honors faculty and is designed to ensure that you are introduced to the great books of the Western tradition. The Honors College also offers seven interdisciplinary minors. For many Honors students, the Senior Honors Thesis represents the exciting culmination of a bachelor's degree. A thesis provides an excellent opportunity for you to work under the direction of faculty in your chosen field of study, applying your skills and knowledge toward the completion of a scholarly or creative project.





THE HONORS COLLEGE COMMUNITY

Special Classes and Course Selection

We draw on the talents of the brightest faculty members within the University to provide a wide range of special courses with limited enrollment. Honors courses encourage student participation, interaction, and discussion.

Membership in a Community

You will enjoy special privileges, including Honors College scholarships, priority course registration, computer facilities, reserved lounge and study areas, study abroad opportunities, and special housing in Honors College residence halls. Many intangible benefits also come with participation in the Honors community—the friendships that develop in the classroom carry over into other areas of student life. We foster an atmosphere of collegiality and a spirit of camaraderie through informal gatherings, social activities, and on- and off-campus cultural events.

Talented Classmates

When admitted to the Honors College, you will enter the company of the most academically talented undergraduates at the University. Members bring a variety of interests, aptitudes, and ambitions to their studies. Through daily association with other Honors students, you will be challenged to strive for excellent in academics and in character.

Apply Now at www.TheHonorsCollege.com/apply

Contact Information:
The Honors College
Office for Student Recruitment
(713) 743-1766
honorsadmissions@uh.edu

SUPPORTERS OF UNDERGRADUATE RESEARCH



"Undergraduate research yields innumerable benefits to our students, our institution, and our region. Those students who work alongside peers and mentors on projects, posters, and papers are better prepared for the road ahead, whether that leads to graduate school or the workforce. I take immense pride in knowing that events such as UH's Undergraduate Research Day are supporting successful outcomes for our Cougars."

PAULA MYRICK SHORT

Senior Vice President for Academic Affairs and Provost, University of Houston



"While I have always valued and supported REU programs throughout my career, the UH undergraduate research programs stand out as a high-bar standard for others to try to emulate. Since 2017 when I joined UH, every Undergraduate Research Day has set a new and higher standard, compared to both national standards and our own expectations. The exceptional quality of our students' work, their amazing ability to present and defend their work, and the sheer quantity of this pervasive excellence never ceases to amaze. My unreserved gratitude to our wonderful students is only matched by my indebtedness to the OURMA leadership and staff."

AMR ELNASHAI

Vice President for Research and Technology Transfer, University of Houston

A special thanks to our campus and community partners for their support of the Office of Undergraduate Research and Major Awards and our undergraduate researchers:

- · Office of the Provost
- Division of Research
- College of Liberal Arts and Social Sciences
- Cullen College of Engineering
- · Cougar Initiative to Engage
- The Honors College
- The Andrew W. Mellon Foundation

- The Writing Center
- UH Libraries
- The University of Texas MD Anderson Cancer Center
- Data Analytics in Student Hands (DASH) and Honors in Community Health (HICH)

SUPPORTERS OF UNDERGRADUATE RESEARCH



"Undergraduate Research Day is the premier event for our students to present their work to the campus community and distinguished guests. It's an exciting day for everyone involved and an opportunity for the presenters to improve their communication skills, network, and be recognized for their accomplishments."

STUART A. LONG

Associate Dean for Undergraduate Research and the Honors College

"Meaningful undergraduate research opportunities occur when students learn that scholarship is a practice of connection. In working with their faculty mentors and research peers they become a part of a community of scholars who build and expand upon existing knowledge and creativity."





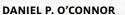


"Getting engaged in undergraduate research allows students to put in action what they have learned in the classroom to solve real world, societal challenges. Research experiences broaden the students' opportunity to be innovative, grow intellectually, build confidence and envision themselves as leaders in their field who can make real change in their communities and beyond."

DONNA STOKES

Associate Dean of Undergraduate Affairs and Student Success, College of Natural Sciences and Mathematics

"Undergraduate research is a valuable and engaging way for students to apply what they have learned in the classroom. As they participate in the formal processes of inquiry and discovery, students move beyond knowledge acquisition to become generators of new knowledge. Conducting research develops the ability to identify, investigate, and solve problems, and to communicate the solutions effectively, which are keys to leadership and professional success."



Dean of the College of Liberal Arts and Social Sciences





"The importance of research at all levels to better understand the roots of the challenges we face and to explore solutions to those challenges has been a common priority, theme, and shared value at universities I've been privileged to work with, from here at the University of Houston, to the University of Toliara in Madagascar, and across the globe."

MICHAEL PELLETIER

Founding Executive Director, Institute for Global Engagement

NATIONALLY COMPETITIVE SCHOLARSHIPS

Consider applying for one of these opportunities.

BARRY GOLDWATER SCHOLARSHIP

For sophomores and juniors who demonstrate academic excellence and intend to pursue research careers in mathematics, the natural sciences, or engineering. This competitive scholarship covers eligible expenses for undergraduate tuition, fees, books, and room and board, up to a maximum of \$7,500 annually.

Campus Deadline: Nov 4, 2022

CRITICAL LANGUAGE SCHOLARSHIP

Language immersion program for undergraduates from all academic disciplines. Sponsored by the U.S. Department of State, this summer program allows students to study one of 15 critical languages abroad, including Arabic, Chinese, Korean, and Russian.

National Deadline: Mid-Nov 2022

HARRY S. TRUMAN SCHOLARSHIP

For college juniors with exceptional leadership potential who are committed to careers as change agents in government, the nonprofit or advocacy sectors, education, or elsewhere in public service. Each Truman Scholar receives up to \$30,000 for graduate study.

Campus Deadline: Nov 4, 2022

NSF GRADUATE RESEARCH FELLOWSHIP

For graduating seniors who intend to pursue a research-based master's or doctoral degree in the natural sciences, engineering, mathematics, or STEM education. The award includes a \$34,000 living stipend and \$12,000 cost-of-education allowance.

National Deadline: Mid-Oct 2022

MORRIS K. UDALL & STEWART L. UDALL SCHOLARSHIP

For sophomore and junior level students committed to careers related to the environment, tribal public policy or tribal health care. Awards of up to \$7,000 and access to the Udall Alumni Network.

Campus Deadline: Feb 6, 2023

FULBRIGHT U.S. STUDENT PROGRAM

For graduating seniors, current graduate students, and alumni. Students may apply to teach English, enroll in a graduate degree program, or conduct research for one year in more than 140 countries. Recipients are awarded a living stipend, travel accommodations, and basic health insurance.

Campus Deadline: Sept 2, 2022



Application for these awards requires a strong academic, leadership, and service record. In some instances, you must be nominated to apply. For more information, visit the Office of Undergraduate Research and Major Awards or contact Ben Rayder (btrayder@uh.edu).



FULBRIGHT GRANTS FOR TEACHING ASSISTANTSHIPS OR STUDY/RESEARCH ABROAD





The Fulbright U.S. Student Program provides grants for individually designed Study/ Research projects or for **English Teaching Assistant** Programs. During their grants, Fulbrighters meet, work, live with, and learn from the people of the host country to foster mutual understanding. Fulbright is one of the largest academic exchanges in the world, providing approximately 2,200 grants annually in more than 140 participating countries.





2022 CAMPUS DEADLINE:

September 2, 2022

FOR MORE INFORMATION, CONTACT: Benjamin Rayder

Director, Office of Undergraduate Research and Major Awards btrayder@uh.edu www.us.fulbrightonline.org





2021 UNDERGRADUATE SCHOLARS & MAJOR AWARDS

The Office of Undergraduate Research and Major Awards congratulates the 2020-2021 Undergraduate Scholars and Major Award recipients, finalists, and alternates:

C.T. BAUER COLLEGE OF BUSINESS

Hamad Khan, Fulbright English Teaching Assistantship Grant, Turkey (Recipient)

Hamad Khan, Critical Language Scholarship (Recipient)

COLLEGE OF LIBERAL ARTS & SOCIAL SCIENCES

Jon Ahn, Fulbright English Teaching Assistantship Grant, South Korea (Recipient)

Kainat Aziz, Critical Language Scholarship (Recipient)

Zaina Boriek, BCM SMART (Recipient)

Jasmin Brooks, Ford Fellowship (Recipient)

Queen Epomba, Critical Language Scholarship (Recipient)

Devereux Fortuna, Fulbright Study/Research Grant, Italy (Alternate)

David Paul Hilton, Critical Language Scholarship (Recipient)

Tia Hufstetler, Critical Language Scholarship (Recipient)

Fatou Jallow, Princeton in Africa (Recipient)

Fatou Jallow, Princeton in Asia (Recipient)

Wasiq Javed, OCA-UPS Gold Mountain Scholarship (Recipient)

Kush Kinariwala, Houston Methodist Summer Undergraduate Research Fellowship (Recipient)

Phillip Kieval, Gates Cambridge Scholarship (Recipient)

Andre Mikhail, Critical Language Scholarship (Recipient)

Lisa Nguyen, Fulbright English Teaching Assistantship, Vietnam (Alternate) Danielle Niangar, Donald M. Payne Graduate Fellowship (Finalist)

Danielle Niangar, Marshall Scholarship (Finalist)

Tagalsir Osama, BCM SMART (Recipient)

Saaj Patel, Fulbright English Teaching Assistantship, France (Recipient)

Saaj Patel, TAPIF (Recipient)

Kareem Soussan, Critical Language Scholarship (Recipient)

Taylor Thomas, JET Program (Alternate)

Nimra Zubair, Critical Language Scholarship (Recipient)

KATHRINE G. MCGOVERN COLLEGE OF THE ARTS

Jaelynn Walls, Knight-Hennessy Scholars (Recipient)

COLLEGE OF EDUCATION

Parker Carwile, Fulbright English Teaching Assistantship Grant, South Korea (Recipient)

Jordan Pemberton, MD Anderson Partnership for Careers in Cancer Science (Recipient)

CULLEN COLLEGE OF ENGINEERING

Kathryn Aing, DAAD RISE Scholarship (Recipient)

Karen Beck, DAAD RISE Scholarship (Recipient)

Alex Bradshaw, DAAD RISE Scholarship (Recipient)

Josiah Cherian, DAAD RISE Scholarship (Recipient)

Wesley Combs, National Science Foundation Graduate Research Fellowship (Recipient) Shravani Deo, DAAD RISE Scholarship (Recipient)

Kevin Fleming, DAAD RISE Scholarship (Recipient)

True Furrh, National Science Foundation Graduate Research Fellowship (Recipient)

Maham Gardezi, Fulbright English Teaching Assistantship Grant, Latvia (Recipient)

Nikki Hammond, DAAD RISE Scholarship (Recipient)

Vincent Laroche, National Science Foundation Graduate Research Fellowship (Recipient)

Fariz Nazir, BCM SMART (Recipient)

Nhung Nguyen, DAAD RISE Scholarship (Recipient)

Jocelyn Ramos, Hispanic Scholarship Fund (Recipient)

Javi Solano, Barry M. Goldwater Scholarship (Recipient)

COLLEGE OF NATURAL SCIENCES & MATHEMATICS

Muhammad Akram, DAAD RISE PRO Scholarship (Recipient)

Ashley Cruz, Fulbright English Teaching Assistantship Grant, Mexico (Recipient)

Trang Do, BCM SMART (Recipient)

Alexander Garcia, BCM SMART (Recipient)

Smiti Gandhi, DAAD RISE Scholarship (Recipient)

Ana Belen Gutierrez, Fulbright English Teaching Assistantship Grant, Spain (Recipient)

Omar Harb, Critical Language Scholarship (Recipient)

Kristen Harris, MD Anderson Partnership for Careers in Cancer Science (Recipient)

Amenda Khoei, MD Anderson Partnership for Careers in Cancer Science (Recipient)

Olivia Lee, Fulbright English Teaching Assistantship Grant, Germany (Recipient)

Olivia Lee, US Teaching Assistantship in Austria (Recipient)

Piya Malhan, BCM SMART (Recipient)

Rael Memnon, MD Anderson Partnership for Careers in Cancer Science (Recipient)

Shailee Modi, Fulbright English Teaching Assistantship Grant, Czech Republic (Recipient)

Gabrielle Olinger, Barry M. Goldwater Scholarship (Recipient)

Areeba Navroz, BCM SMART (Recipient)

Hai Pham, Fulbright English Teaching Assistantship Grant, Taiwan (Alternate)

Phillip Pham, Fulbright English Teaching Assistantship Grant, Taiwan (Alternate)

Pierce Popson, DAAD RISE Scholarship (Recipient)

Alejandro Ramirez, National Science Foundation Graduate Research Fellowship (Recipient)

Carl Suerte, Fulbright Study/ Research Grant, Japan (Recipient)

Carl Suerte, JET Program (Alternate)

Laura Taylor, National Science Foundation Graduate Research Fellowship (Recipient)

Daniel Wadhawan, BCM SMART (Recipient)

Christopher Wong, Fulbright Fogarty Grant, Ethiopia (Alternate)

Peijun Zhao, BCM SMART (Recipient)

OUTSTANDING FELLOWSHIP MENTOR AWARD

The Undergraduate Scholars and Major Awards Celebration was held virtually on April 20th, 2021 and hosted by the Office of Undergraduate Research and Major Awards (OURMA). The University of Houston Outstanding Fellowship Mentor Award was featured at the Celebration and awarded to **Sally Connolly**, Associate Dean for Student and Faculty Success in the College of Liberal Arts and Social Sciences.



SALLY CONNOLLY

Dr. Connolly was recognized for excelling in faculty mentorship by stimulating developmental growth through advice, feedback and guidance on research activities, and honing skills essential to current and prospective careers. She has also been instrumental in the development and stability of the Fulbright U.S. Student Program, and major awards to the United Kingdom, such as the Rhodes and Marshall Scholarships.

Dedication and Excellence

The dedication of Dr. Connolly reflects an innate desire for excellence. Cultivating research abilities and a successful work-life balance, she has been a major contributor to creating unique opportunities for students and faculty to thrive and excel.

Opportunity Creation

Dean Connolly's commitment to promoting student success through fellowships is both personal and academic. A first generation student herself who benefitted from the mentorship of others, Connolly works tirelessly to create awareness for competitive scholarships, identify candidates, and speak with faculty members in CLASS about major awards. She is also a national reviewer for the Fulbright U.S. Student Programs study awards to the United Kingdom.

Success as Associate Dean

"Since becoming Associate Dean for Student and Faculty Success, Dr. Connolly has been key in linking our talented students to fellowship, research, and scholarship opportunities on the national and international stages," said Dean Dan O'Connor of the College of Liberal Arts and Social Sciences. "Her work inside and outside of the university is raising the profile of UH and CLASS and providing valuable experiences and supports for more of our students."

Congratulations to Dr. Connolly on her award!

UNIVERSITY OF HOUSTON LIBRARIES

University of Houston Libraries serves the entire academic and research community by offering expert support in instruction, access, discovery, use, and scholarly/creative output; by providing engaging and relevant resources to address local and global societal questions; and by valuing and welcoming all who engage with us onsite and online.

You can find past works of undergraduate research in the UH Institutional Repository. The UHIR collects, preserves, and distributes scholarly output and creative works produced by the University of Houston community. Collections include "Undergraduate Research Day Projects" and "Senior Honors Theses."

Email UH Libraries to:

- Map out your research approach
- Develop search strategies
- Use library resources

Contact libteach@uh.edu to get started today.

"Students discover that there are people like librarians who will facilitate their learning outside of the classroom and introduce them to information in all its complexity to enhance and complement their research. As librarians, we champion curiosity and do our best to minimize uncertainty as our students embark on answering society's questions while they build their own civic awareness and scholarly confidence. Supporting these efforts with partners like those in the Honors College enhances the experience of our undergraduates whose interests, questions, and voices are our future."

ATHENA JACKSON

Dean of University Libraries



Thank you to UH Libraries for supporting Undergraduate Research at the University of Houston.

THE WRITING CENTER



Writing is thinking. It is an indispensable activity for every discipline conducting research within a university setting and an essential component of a university education. Ongoing instruction in writing helps to initiate students into the changing intellectual demands of university life and introduces them to the complexities of their chosen disciplines and professions. Because writing provides the tools to discover and articulate solutions to intellectual problems, improved writing remains a continual goal of university education.

To address these concerns, the mission of the **University of Houston Writing Center** includes Assessment, Writing Instruction, Curricular Innovation, Community Outreach, Professional Development, and Research in the Teaching of Writing. Website: writingcenter.uh.edu

Thank you to the Writing Center for supporting Undergraduate Research at the University of Houston.

WRITING CENTER SERVICES



STUDENT SERVICES

The Writing Center offers one-on-one consultations in which our trained Writing Consultants assist students with various types of writing appointment base only.



FACULTY SERVICES

The Writing Center supports UH faculty in instituting effective writing practice, instructions, and evaluation through consultation, design and training services.



ONLINE WRITING SERVICES

Students also have the option to meet online with our trained consultants to discuss their writing from any location through our Online Writing Services.

(UGRQUH) WEBINAR SERIES



FALL 2021 SCHEDULE

SEPTEMBER 17, 2021

Getting Started in Research

Rikki Bettinger

Office of Undergraduate Research and Major Awards

SEPTEMBER 24, 2021

Ethics in Research: The IRB

Nettie Martinez Division of Research

OCTOBER 29, 2021

Introduction to Digital Humanities for Undergraduate Researchers

Kristina Neumann and Elizabeth Rodwell, SYRIOS Project Taylor Davis Van-Atta and Claude Willan, Digital Research Commons **NOVEMBER 12, 2021**

Interviewing 101: Preparing for Fellowships and Graduate Opportunities

Anthony B. Cashman, III College of the Holy Cross

NOVEMBER 19, 2021

Knowing Your Audience: Communicating Your STEM ResearchRita Sirrieh

The Honors College

SPRING 2022 SCHEDULE

JANUARY 28, FEBRUARY 25, AND MARCH 25, 2022

Getting Started in Research

Victoria Jupp

Office of Undergraduate Research and Major Awards

FEBRUARY 11, 2022

Crafting a Research Proposal

J. Leigh Leasure Psychology

APRIL 8, 2022

Research Opportunities with UH Learning Abroad

Maggie Mahoney Learning Abroad

Ben Rayder and Victoria Jupp Office of Undergraduate Research and Major Awards APRIL 29, 2022

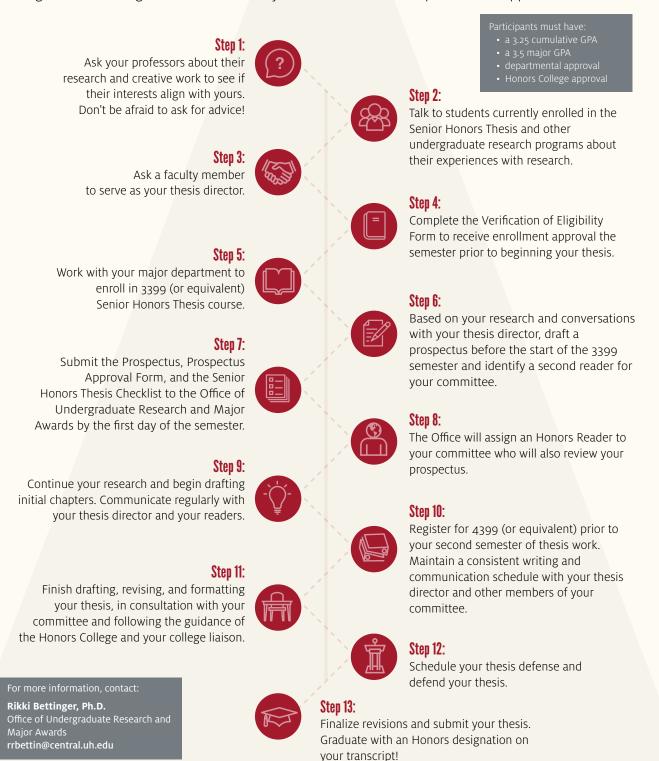
Communicating your Research: Social Networks and Conferences

Rikki Bettinger and Victoria Jupp Office of Undergraduate Research and Major Awards

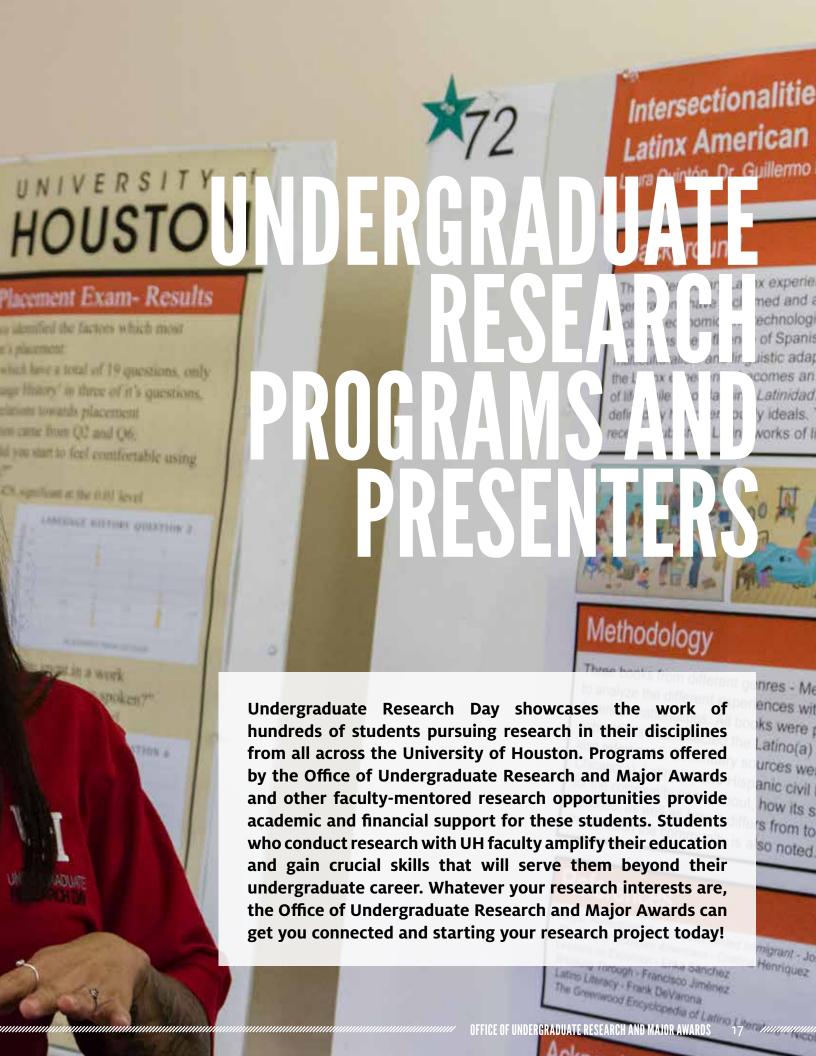


Senior Honors Thesis

The Senior Honors Thesis is a 2-semester, 6 credit hour capstone research experience under the guidance of a faculty mentor. Students of all majors can participate—membership in the Honors College is not required. The Office of Undergraduate Research and Major Awards collaborates with The Honors College and the College of the student's major to oversee the thesis process and approval.







HOUSTON EARLY RESEARCH EXPERIENCE

The **Houston Early Research Experience (HERE)** program recognizes freshman and sophomore students who excel both inside and outside the classroom. This two-week seminar series engages students from all majors in various research methodologies through faculty-led small group discussions and research presentations. Students receive a \$1,000 scholarship for participating in HERE.

HERE 2021

August 2-13, 2021

Forty-eight students representing six UH colleges participated in the 2021 HERE program. Students conducted research and proposed solutions to challenges posed by inequality in Houston.

HERE Faculty Mentors:

Charlie Becker Monique Mills
Christiana Chang Stacey Louie
Marc Hanke Rita Sirrieh
Kelly Hopkins Lesli Vollrath







HERE 2022

May 16-27, 2022

The 2022 theme for HERE will be energy in Houston, and we look forward to welcoming our next cohort! Applications for the HERE program are accepted through early March each year. For more information on future HERE programming, contact Victoria Jupp at vjupp@uh.edu or visit uh.edu/here.

RESEARCH FOR ASPIRING COOGS IN THE HUMANITIES

The **Research for Aspiring Coogs in the Humanities (REACH) Program** at the University of Houston is a collaborative effort supported by the Cougar Initiative to Engage and the Office of Undergraduate Research and Major Awards. REACH provides a \$1,500 scholarship and a year-long introductory research experience for students in humanities disciplines by connecting a dozen students to existing research projects at the University of Houston. From projects in collaboration with UH Libraries Special Collections, to the digital humanities, to individual faculty research projects in humanities disciplines, the REACH program provides an entry-point to hands-on scholarly inquiry.

2021-2022 PARTNERS AND PARTICIPANTS



Black. Migration. Houston.

<u>Mentors</u> Rachel Quinn Zelma Oyarvide Tuthill

Student Participant Thomas Avent



Black Power and Art in Houston

<u>Mentors</u> Duy Nguyen Cedric Tolliver

<u>Student Participant</u> Eos Sison



Digital Research Commons: Data and Visualizations in English Literature

Mentor Claude Willan

Student Participant Alexandra Gurule Cameron Mitchell



DJ Screw Sound Recordings

<u>Mentor</u> Julie Grob

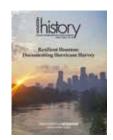
Student Participant Jenna Goodrich



Recovering the U.S. Hispanic Literary Heritage Program

Mentors Lorena Gauthereau Linda Garcia Merchant Gabriela Baeza Ventura Carolina Villarroel

Student Participants Alejandro Aguilar Carlos Campos, Jr. Carolina Lopez-Herrera



Resilient Houston: Documenting Hurricane Harvey

Mentors Debbie Harwell Todd Romero

Student Participants Emmanuel Gonzalez Maia Mendoza



Sharing Stories from 1977

Mentors Nancy Young Leandra Zarnow Sandra Davidson

Student Participants Jessica Rodriguez Maya Perez Naveed Ahmed Phu Le



SYRIOS

<u>Mentor</u> Kristina Neumann

Student Participants Natalie Dean James Ian Thompson



Working with Primary Source Historical Archives

<u>Mentor</u> Christian Kelleher

Student Participant Kennedy Williams

ACTION RESEARCH IN COMMUNITIES PROGRAM

The Office of Undergraduate Research and Major Awards, in partnership with the Cougar Initiative to Engage (CITE), offers the **Action Research in Communities (ARC) Program**. ARC provides selected students with a \$1,500 scholarship to pursue a year-long, faculty-mentored action research project focused on a past or current service project the student has participated in. The goal of action research is continuous improvement, reflection, and growth.

ARC participants will develop research questions around issues observed in the community and gain a better understanding of why these issues exist. They will then use that knowledge, coupled with their own service experiences and reflections, to develop an action plan to improve outcomes within the Greater Houston Community. Toward the end of their year in ARC, students will be given the opportunity to present their service-based research projects and apply for an implementation grant of up to \$750 to support turning their action plans into reality. Faculty mentors of ARC recipients also receive a \$300 stipend.



Audrey Huang Exercise Science Major Mentored by Dan Price

ARC Project: Responsive Resourcing (RR) is a collaborative effort between University of Houston undergraduates and the UH Community Health Worker Initiative (UH CHWI) to support Houston's communities.

Student volunteers work directly with CHWs (community health workers) from geographic hubs of low socioeconomic status to search for and verify resources that support community members impacted by COVID-19 and other crises. RR was founded in April 2020 to address immediate barriers that hubs experienced during the pandemic and has since evolved in structure. It utilizes a strengths-based approach in which students and CHWs coordinate their unique skills and assets to find the best resources for individual community members. The program evaluation I am conducting on RR will be used to measure the effectiveness of the collaboration in finding and applying useful resources. I will also be identifying the aspects of the program that enhance resource matching efficiency and success..



Kala Pham Biology Major Mentored by Kimberly A. Pilkinton

ARC Project: This project assesses the perceived gap in gynecological health knowledge for adolescent girls, determines what medical resources are commonly used by adolescent girls, and identifies what type of

health education is most effective to help promote access to accurate information regarding adolescent gynecologic concerns based on our analysis. The research centers around data analysis of pilot classes for recently homeless adolescent girls to evaluate gaps in health literacy and effective modes of education. Through the results, I can create a health education initiative or platform that can successfully improve access to gynecological health information.



David Rincon Architecture Major Mentored by Donna Kacmar

ARC Project: This research project studies the communities around the Columbia Tap Hike and Bike Trail, which crosses through East Downtown and Third Ward. Using community feedback to propose improvements along the

trail, this project is intended to highlight some of the many benefits that urban infrastructure can provide. Currently, I am working with a group of people and nonprofits to create a pocket park along the trail, where we will be using my research to aid in its design and implementation.



Neha Sunkara Biology and Economics Majors Mentored by Michelle Belco

ARC Project: Food insecurity is briefly defined as experiencing the lack of or difficulty accessing affordable, nutritionally-dense foods. Providing food can be a stopgap measure, but ideally, food insecurity should be addressed

in conjunction with health disparities. The goal of this ARC project is to conduct case studies on Texas food distribution organizations and evaluate institutional program practices that address food insecurity and health disparities together. The first stage of the project identifies two to four food distribution organizations across five Texas counties and collects publicly available information regarding their individual programs. The second stage involves creating a repository system with parameters for each program and developing a coding scheme using similarities identified among the facilities' initiatives. Finally, a report will be produced that explains the coding scheme to identify key features of relevant programs and provide exemplars of each feature. This project will further evolve a more systematic relationship between food insecurity and health disparities within Texas food distribution organizations.



PROVOST'S UNDERGRADUATE RESEARCH SCHOLARSHIP

The **Provost's Undergraduate Research Scholarship (PURS)** program provides talented University of Houston students with the opportunity to participate in a semester long research project under the guidance of a UH faculty mentor. Students from all disciplines are encouraged to apply. PURS recipients receive a \$1,000 scholarship to conduct a one-semester research project with their faculty mentors. For more information, contact Rikki Bettinger at rrbettinger@uh.edu.



FALL 2021 PURS RECIPIENTS

Anaga Ajoy

Mentored by Pranav Parikh Health and Human Performance

Briana Azad

Mentored by Ann Cheek Biology and Biochemistry

Miles Bednorz

Mentored by Debbie Harwell History

Grace Conroy

Mentored by Debbie Harwell History

Justin Dang

Mentored by Mehmet Orman Chemical and Biomolecular Engineering

Jared Davis

Mentored by Jerrod Henderson Chemical and Biomolecular Engineering

Ariana Delgado

Mentored by Nathan Canen Economics

Susette Flores

Mentored by Elizabeth Gregory English and Women's, Gender & Sexuality Studies

Angel Gamez

Mentored by Yi-Lung Mo Civil and Environmental Engineering

Nabeeha Hasan

Mentored by Daniel Price Data Analytics in Student Hands, Honors

Lily Huang

Mentored by Jakoah Brgoch Chemistry

Oluwaseun Lagbenro

Mentored by Hanako Yoshida Psychology

Benita Lalani

Mentored by Joyce Ogunrinde Health and Human Performance

Zhihong (Andrea) Lin

Mentored by Sujata Sirsat Hotel and Restaurant Management

Jennifer Lin

Mentored by Frank McKeon Biology and Biochemistry

Cindy Luu

Mentored by Liming Li Physics

Piya Malhan

Mentored by Bradley Smith Psychological, Health, & Learning Sciences

Jayda Martinez

Mentored by Lorraine Reitzel
Psychological, Health, & Learning
Sciences

Hemanshu Mirchandani

Mentored by Kiran Parthasarathy Accounting

Sondos Moursy

Mentored by Christine LeVeaux-Haley Political Science, Honors

Dorothy Mwakina

Mentored by Yingchun Zhang Biomedical Engineering

Nhi Nguyen

Mentored by Chandra Mohan Biomedical Engineering

Brian Nguyen

Mentored by Debora Rodrigues
Civil and Environmental Engineering

Nimra Niazi-Galindo

Mentored by Joyce Ogunrinde Health and Human Performance

Anushka Oak

Mentored by Benjamin Tamber-Rosenau Psychology

Maria Eugenia Romero

Mentored by Islam Rizvanoghlu Economics

Alexis Ruiz

Mentored by Meghana Trivedi Pharmacy Practice and Translational Research

Alexandra (Sasha) Samperio

Mentored by Kei-Mu Yi Economics

Nabeela Siddeeque

Mentored by Ariel Ludwig Data Analytics in Student Hands, Honors

Gundeep Singh

Mentored by Andreas Mang Mathematics

Lujayna Taha

Mentored by Jose Contreras-Vidal Electrical and Computer Engineering

Olivia Tran

Mentored by Gomika Udugamasooriya Pharmacological and Pharmaceutical Sciences

Fernando Vasquez

Mentored by Vedhus Hoskere
Civil and Environmental Engineering

Cenk Yigit

Mentored by Vedhus Hoskere Civil and Environmental Engineering

PROVOST'S UNDERGRADUATE RESEARCH SCHOLARSHIP

SPRING 2022 PURS RECIPIENTS

Ishmam Alam

Mentored by Rosenda Murillo Psychological, Health, & Learning Sciences

Edward Armijo

Mentored by Alamgir Karim Chemical and Biomolecular Engineering

Jacqueline Bahrami

Mentored by Beau Alward Psychology

Raghav Baskar

Mentored by Jeffrey Rimer
Chemical and Biomolecular Engineering

Brandt Bechtel

Mentored by Dimitrios Kalliontzis Civil and Environmental Engineering

Carlos Benitez

Mentored by Tian Chen Mechanical Engineering

Nicolas Betancourt

Mentored by Rodolfo Ostilla Monico Mechanical Engineering

Caleb Broodo

Mentored by Gemunu Gunaratne Physics

Amy Bui

Mentored by Chandra Mohan Biomedical Engineering

Cole Carter

Mentored by Minjung Shin Hotel and Restaurant Management

Jacob Cruz

Mentored by Ming Hu Pharmaceutics

Jennifer Csicsery-Ronay

Mentored by Ioannis Kakadiaris Computer Science

Ariel Durham

Mentored by Terry Hallmark Political Science, Honors

Nusayba El-Ali

Mentored by Mario Romero-Ortega Biomedical Engineering

Jose Esparza Pinelo

Mentored by Mehmet Sen Biology and Biochemistry

Trevor Eustaquio

Mentored by Dimitrios Hatzignatiou Petroleum Engineering

Ashley Foxworthy

Mentored by Lorraine Stock English

Hedda Grelz

Mentored by Kevin Bassler Physics

Sophie Grubbs

Mentored by Donna Kacmar Architecture

Tatiana Haddad

Mentored by Susan Rasmussen Comparative Cultural Studies

Nhi Hoang

Mentored by Lars Grabow Chemical and Biomolecular Engineering

Alaia Homawoo

Mentored by Stacey Louie
Civil and Environmental Engineering

Anh Huynh

Mentored by Jinghui Hou Decision and Information Sciences

Benjamin Ilboudo

Mentored by Zhao Bo Mechanical Engineering

Waldemiro Junqueira

Mentored by Jerrod Henderson Chemical and Biomolecular Engineering

Ted Kim

Mentored by Peter Vekilov Chemical and Biomolecular Engineering

Chloe Levy

Mentored by Caryn Tamber-Rosenau Modern and Classical Languages

Alexander Mai

Mentored by Richard Meisel Biology and Biochemistry

Jing Ming Lim

Mentored by Renita Horton Biomedical Engineering

William Lipscomb

Mentored by Marzia Cescon Mechanical Engineering

Arya Loloee

Mentored by Jakoah Brgoch Chemistry

Lauren Lyles

Mentored by Julie Dunsmore Psychological, Health, & Learning Sciences

Ileagh MacIvers

Mentored by Howard Pollack Musicology

Andrew Martinez

Mentored by Olafs Daugulis Chemistry

Allen Mathew

Mentored by Kamran Alba Engineering Technology

Ziyad Mohiuddin

Mentored by Charles Layne Kinesiology

Maria Eduarda Mroczek

Mentored by Benjamin Tamber-Rosenau Psychology

Saad Nadeem

Mentored by Cherine Hatem Human and Health Performance



PROVOST'S UNDERGRADUATE RESEARCH SCHOLARSHIP

SPRING 2022 PURS RECIPIENTS (CONTINUED)



Bao Thuan Nguyen

Mentored by Tshepo Masango Chéry History

Steven Nguyen

Mentored by Qin Feng Biology and Biochemistry

Tommy Nguyen

Mentored by Tian Chen Mechanical Engineering

Diane Nguyen

Mentored by Taewoo Lee Industrial Engineering

Radha Nune

Mentored by Chandra Mohan Biomedical Engineering

Thi Phan

Mentored by Ali Kamrani Industrial Engineering

Aryana Pourmotamed

Mentored by Sheereen Majd Biomedical Engineering

Damien Price

Mentored by Claudia Ratti Physics

Shaiyan Rahman

Mentored by Nikolaos Malamataris Chemical and Biomolecular Engineering

Steven Ramirez

Mentored by Jonny Wu Earth and Atmospheric Sciences

Eshwar Ranganath

Mentored by Quenette Walton Graduate College of Social Work

Syed Rizvi

Mentored by Hien Van Nguyen Electrical and Computer Engineering

Andreina Ruiz

Mentored by Lorraine Stock English

Nathan Seto

Mentored by Robert Comito Chemistry

Anique Siddiqui

Mentored by Kerri Crawford Biology and Biochemistry

Dobri Stalev

Mentored by Dong Liu Mechanical Engineering

Manal Taroua

Mentored by Bo Zhao Mechanical Engineering

Jessica Thai

Mentored by Clayton Neighbors Psychology

Divya Thomas

Mentored by Hanako Yoshida Psychology

Bao Han Tran

Mentored by Adam Fetterman Psychology

Tran Tran

Mentored by Tian Chen Mechanical Engineering

Ekta Upadhyay

Mentored by Sanghyuk Chung Biology and Biochemistry

Veera Venkata Ramprajwal Vempatti

Mentored by Lars Grabow Chemical and Biomolecular Engineering

Elisabeth Walla

Mentored by Michael Zvolensky Psychology

Victoria Rose White

Mentored by Julie-Françoise Tolliver Modern and Classical Languages

Nayani Wickramaratne

Mentored by Vedhus Hoskere
Civil and Environmental Engineering

Katherine Wong

Mentored by Vaughn Climenhaga Mathematics

GEORGE "TREY" PHARIS FELLOWSHIP

Each summer, the Data & Society program offers the **George "Trey" Pharis Fellowship** as a full-time, paid research opportunity open to undergraduate students across all majors. Fellows work collaboratively, with support from faculty mentors, to conduct 10-week projects focused on the application of data science to healthcare and the social determinants of health, including education, criminal justice, and the environment. Building on a model developed by the UH Community Health Worker Initiative,



these projects are unified around a commitment to responsive engagement with community and show the many ways that new approaches to data science can avoid the pitfalls of top-down models for decision-making.

The Pharis Fellowship is supported by the Humana Integrated Health Systems Sciences Institute and Hewlett Packard Enterprise Data Science Institute through its Engaged Data Science program. The program is named for George S. Pharis III (Trey), a University of Houston alumnus (Philosophy '11), who served as an Honors College staff member until his passing in 2017. As a poet, musician, and writer with interests ranging from social justice to number theory, Trey exemplified the intellectual curiosity and open worldview we hope to inspire in our students.

2021 FELLOWS



Lucinda BaBiology and Psychology
Examining Whether Adults
Diagnosed with Social Anxiety
Disorder (SAD) Receive
Evidence-Based Treatment



Abby ChopraManagement Information Systems
Imposter Among Us: A
Qualitative Analysis of Imposter
Syndrome Posts on Reddit



Jacob HigdonComputer Science
Mapping LGBTQ Interaction with
Federal and State Prisons



Aleen Jacob
Public Health
Observing Houston English
Language Learners to Teacher
Relationship Based on Language
Proficiency in Elementary
Schools



Montinice Jordan
Comparative Cultural Studies
Decoding Workplace Health



Margaret Kamholz
Mathematics
Investigating Treatment Barriers
to those with Eating Disorders

Randy Martinez

The Impact of Isolation on

Mental Health: Lessons Learned

Computer Science



Dwija Parikh
Computer Science and
Mathematics
Decoding Administrative Data

for Process of Care in Cancer

Treatment



Kala Pham
Biology
Identifying Perceptions and
Intent Surrounding the HPV
Vaccine in Texas



Ada SisonPublic Health
A Snapshot of Frailty in Humana
Insurance Data



Hannah Wolken
Computer Science
Mapping Advanced Coursework
Access: The Role of School
Attendance Boundaries and
Income Segregation

PCCSM SUMMER RESEARCH PROGRAM

The **Partnership for Careers in Cancer Science and Medicine** summer program with national cancer researchers is hosted annually by The University of Texas MD Anderson Cancer Center. Nominated for exemplifying compassion and an aptitude for research in the medical field, four Honors College students will collaborate and work alongside worldwide cancer experts for 10 weeks in summer 2022.

The Partnership for Careers in Cancer Science and Medicine teaches and encourages passionate medical leaders through hands-on research training, weekly seminars, and workshops. At the end of the program, the trainees will present the results of their research as scientific posters, along with trainees from other summer programs, at the virtual MD Anderson Summer Experience Final Event as well as participate in an Elevator Speech contest, a fun, practical way to practice succinctly introducing their field of study and research to others.

MD Anderson is one of the world's premier cancer centers focused on cancer patient care, research, education and prevention. Students interested in learning about undergraduate research programs and opportunities for competitive fellowships should contact the Office of Undergraduate Research and Major Awards at undergrad-research@uh.edu.

2022 PCCSM RESEARCHERS



Kala Pham



Daniela Tovar



Varshini Vakulabharanam

2022 RETURNING PCCSM RESEARCHERS



Kristen Harris



Rael Memnon



Jordan Pemberton

"My experience in the PCCSM program exposed me to the tenacity required to work in clinical research as well as the amount of commitment required to drive a project to completion. I am looking forward to furthering my scientific expertise and advancing the goals of my research projects this upcoming summer." - Kristen Harris

"I look forward to learning extensively about cancer research and studying under renowned experts in the field. With the knowledge and connections provided by this internship, I will develop a strong foundation for a career in medicine and public health." - Kala Pham

HOUSTON SCHOLARS

Supported by the Office of the Provost and the Honors College, the **Houston Scholars** program is for high-achieving freshmen and sophomores to receive mentorship and scholarship funding to pursue research, internships, and other distinctive experiential learning opportunities. Through targeted programming, participants benefit from honing their academic and professional skills, developing connections with faculty, engaging in scholarly endeavors, and preparing to apply for nationally competitive scholarships and top graduate school programs.



Houston Scholars are encouraged to participate in self-reflection, critical thinking, passionate inquiry, and the application of theory and research to real-world problems. During the course of the academic year, Houston Scholars will have the opportunity to engage with current events through research, seminar series lectures, and debate activities.



HOUSTON SCHOLARS



The Houston Scholars theme for the 2021-2022 academic year is "Energy: Where Does Houston Go From Here?" In this context, Houston Scholars explored the challenges and opportunities associated with the rapid changes affecting our city and state. Students identified and researched contemporary problems such as mass transportation, alternative energy sources, carbon emissions, cryptocurrency, and many other subjects. Cohort members participated in an intensive research week in early January and will culminate the year's activities in April when they present their research findings and policy proposals to a panel of experts.

Houston Scholars Participants:

Kathryn Aing	Mark Hanna	Or-El Meir	Sabah Shaikh
Briana Azad	Nabeeha Hasan	Sondos Moursy	Amritha Siby
Zaina Boriek	Baycha Isik	Carlos Patterson	Jason Suerte
Helin Erdal	Neha Joshi	Kala Pham	DeBorah Thomas
Dima Ghazala	Amber Jozwiak	Sarah Randall	Ramya Valipe
Joaquin Gonzalez	Kiran Khan	Jamie Rose	Mielad Ziaee
Alexandra Goodin	Fhson Maleki	Olivia Salinas	



FRAMEWORKS

FrameWorks is a year-long co-curricular program that provides curious, driven undergraduate students a supportive community of peers and faculty mentors as they conceive, research, write, present, and ultimately publish critical essays that draw on the interdisciplinary humanities. Each year, FrameWorks challenges students to broadly interpret an annual theme. Essays that meet editorial standards will be included in FrameWorks: A Journal of Undergraduate Research in the Interdisciplinary Humanities. The theme for 2020/2021 was "The Unknown."

The best article published in each edition is awarded the **FrameWorks Prize for Excellence in Undergraduate Research in the Interdisciplinary Humanities**. In 2021, the prize was awarded to Anna Mayzenberg for her article, "It is All One Thing: Ecological Stewardship, Morgan Thomas's FrameWorks article "Speaking, Embodying, Living: Oral History and the 1963 Birmingham Children's Crusade" was awarded the inaugural Irene Guenther Prize.



2021-2022 FELLOWS

In 2021/2022 the FrameWorks program challenged students to interpret the theme "Immunity." FrameWorks Fellows, who hail from a variety of majors, have adopted inventive and exciting humanities-based approaches to a diversity of research topics:



Akanksha Bhatia Year: Junior Major: Industrial Design Research Topic: The Graphic Design of Ken Garland



Angela Jardina Year: Sophomore Major: English Research Topic: Moral Immunity in Francis Ford Copolla's The Godfather



Elizabeth Spencer Year: Junior Major: Music (Cello) Research Topic: Shostakovich's 13th Symphony



Ada Cinar Year: Sophomore Major: Biochem Research Topic: Cormac McCarthy's No Country for Old Men in the Age of the Covid Pandemic



Kiran Khan Year: Sophomore Major: Political Science and Computer Science Topic: Reason and Belief in an Age of Misinformation



Saamiya Syed Year: Senior Major: Biotech Research Topic: Yellow Fever in 19th Century Literature



Sarah Gawlik Year: Sophomore Major: Psychology Research Topic: Sophocles' Oedipus Tyrannus and the Plague of Athens



Guadalupe Lombera Year: Iunior Major: Biology Research Topic: Paola Mendoza's Immigrants Are Essential Installations



Esraa Wasel Year: Iunior Major: Philosophy Research Topic: Morality and Misfortune in Euripides' Medea



Nabeeha Hasan Year: Junior Major: Biomed Research Topic: Tobacco Advertising in the Civil Rights



Hailey McAndrew Year: Sophomore Major: Biotech Research Topic: Feminized Cancer in Anne Bover's The Undying

FRAMEWORKS

FRAMEWORKS

FrameWorks 2022 Call for Applications Deadline: June 30, 2022

"I'm so happy I went through this process before I went to grad school, because I don't have a lot of those doubts, like Am I going to be good? Am I going to be ready? I know I'm ready."

Kat Newman (FrameWorks '20)

Do you want to be a FrameWorks Fellow? Applications for 2022-2023 are now open.

- Take part in a year-long mentorship and peer support program—think and write about the ideas that matter to you.
- FrameWorks guides you through the process of conceiving, researching, drafting, rewriting, refining, and presenting your article, for possible publication in *FrameWorks: A Journal of Undergraduate Research in the Interdisciplinary Humanities*.
- Rising sophomores and juniors of all majors with a GPA of 3.5 or higher are invited to apply.

"It opened a lot of doors for me, to do medical humanities research but also to take a step back and say, 'Wow, I really did do that.'" **Leonard Wang (FrameWorks '21)**

2022-2023 Theme: Constellation

Visit the website: thehonorscollege.com/frameworks/apply

"It translated into much better writing and much more cohesive thinking, for the rest of my life."

Rebeca Hentges (FrameWorks '20)



UNIVERSITY of **HOUSTON** THE HONORS COLLEGE



The **Mellon Research Scholars** Program at the University of Houston seeks to contribute to the mission of creating a diverse academy in the humanities. Funded by a grant from The Andrew W. Mellon Foundation, the program supports undergraduate students from backgrounds underrepresented in the academy and others with a demonstrated commitment to the goal of building a diverse academy. Mellon Research Scholars participate in an intensive two-week graduate school preparation program in May and a full-time, faculty-mentored summer research experience. The scholars also participate in faculty-led seminars and receive holistic mentorship throughout the year-long program. All students have the opportunity to develop research projects that appeal to their scholarly interests in their field of study.

Each fall, approximately 20 humanities students are selected for participation in the Mellon Research Scholars Program which begins in January of their junior year. Each participant receives a total of \$5,000 for conducting their summer research project and participating in developmental academic and mentorship activities. For more information, contact Rikki Bettinger at rrbettinger@uh.edu or visit the webpage: uh.edu/mellonscholars

The following 20 students completed the Mellon Research Scholars program in 2021 where they carried out a full-time summer research project and participated in a graduate school preparation bootcamp.



Ashlíta Acuña-Mena Mentored by Guillermo De Los Reyes, Zelma Ovarvide Tuthill Hispanic Studies and WGSS; Sociology Constraints, Resourcefulness, and Resilience in the Immigrant Latinx Community: Alternative Health Promoting Strategies for Diabetes Self-

Management



Mentored by Maria Gonzalez English "A Rainbow of Razas": An Analysis of

Alejandro Aguilar

the Chicano Identity through Writings



Carla Bullock Mentored by Johanna Luttrell Political Philosophy Cissexism and Trans Women's Denial of Subjectivity



Citlali Chavana Mentored by Kate Anderson Sociology Education as a Fundamental Cause of



Joshua Cornelius Mentored by Mark Sursavage **Writing Center**

Perception and Power: How Student Perception of Assigned Texts in First Year Composition Impacts Their Self-Efficacy



Laura Delgado-Guzman Mentored by Mabel Cuesta Hispanic Studies New Feminist Wave in Latin America



Ariel Durham Mentored by Terry Hallmark Political Science, Honors College How to Think About Civic Education in Our Modern America [Divided]



Queen Epomba Mentored by Melody Li Modern and Classical Languages Representation of Republican-Era Chinese Cities in State-Owned Adaptations Redefining Popular Culture in State-Controlled Media



Susette Flores Mentored by Lauren Brozovich English Nature Greets Man: An Ecofeminist Reading of Elizabeth Bishop's "The



Allie Funk Mentored by Laurie Lambeth Creative Writing, Honors College You Have a Boyfriend?: Representations of Disabled People and Intimacy in Film



Mentored by Norah Gharala History Conquering Tierra Firme: Labor Dependence and Conflict in Early Colonial Panama

Tara Georgeson



Diego LopezMentored by Carol Cooper
Political Science, Honors College
Native American Rights in the New
World: A Spanish Perspective



Jack Morillo
Mentored by Roberto Tejada
English and Art History
Collaging Identity: Poetics to "Un-One"
the Filinino



Jimmy Nguyen Mentored by Brandon Lamson English, Honors College Buddhism and Spiritual Technologies Amid the Pandemic



Sydney Nutter Mentored by David Rainbow History, Honors College What Do You Want? Comparing Psychological, Sociological, and Buddhist Theories on Happiness



Andreina Ruiz Mentored by Amanda Baumle Sociology Reception of Transgender Women in Online Lesbian Spaces



Morgan Thomas Mentored by Debbie Harwell History Creating the Spirit: Spirit of the Confederacy and the Robert E. Lee Chapter of the United Daughters of the Confederacy



Daniela Trejo
Mentored by Gabriela Baeza
Ventura
Hispanic Studies
Lifestyle of People of Mexican Heritage
and Heart Disease



Sandra Tzul
Mentored by Debbie Harwell
History
An Exchange Between Latinxs and
Houston



Victoria White Mentored by Julie F. Tolliver Modern and Classical Languages Equity in Education: The Accessibility of Higher Education for Native American Students





2021 MELLON SEMINAR SERIES

SPRING & FALL 2021

Students met regularly during the spring semester for research development with their mentors and faculty-led seminars introducing the students to a variety of scholarship in the humanities. Mellon Scholars developed and presented their research proposals in April. Following the two-week graduate school prep bootcamp held in May, Mellon Scholars conducted a full-time, 10-week research experience during the summer. They also attended the weekly SURF lecture series and met regularly as a cohort. They presented their work in small groups for peers and Mellon Faculty Mentors in August.

In the fall, Mellon Research Scholars attended cohort meetings, a seminar on "Keeping Your Research Alive: Book Writing and More," and graduate application writing workshops. Mellon Scholars receive financial support for GRE registration and graduate school applications to programs in the humanities. In addition to the thoughtful guidance provided by faculty mentors, through the year the Mellon Scholars were able to learn from over 25 talented UH faculty in Humanities disciplines. We thank them for sharing their time and insights with the Mellon Scholars.

GRADUATE SCHOOL BOOTCAMP

MAY 17, 2021

Considering Graduate School and Selecting the "Right" Program

Elizabeth Goodin-May and Mabel Cuesta, Hispanic Studies

MAY 18, 2021

Developing Competitive Application Materials/The Selection Committee Experience/The CV & Personal Statement

Justin Coates, *Philosophy*Richard Mizelle, *History*Jennifer Wingard, *English*Ben Rayder and Nimra Zubair, *OURMA*

MAY 19, 2021

Demystifying Research and the Senior Honors Thesis

Brittni MacLeod & Rikki Bettinger, OURMA

Fundamentals and Ethics in Research

Zelma Oyarvide Tuthill, Sociology and Women's, Gender, & Sexuality Studies

MAY 20, 2021

Developing Your Mentor Network and Conducting Undergraduate Research

Amanda Ellis, English Conducting Undergraduate Research, Mellon Scholar Roundtable

MAY 21, 2021

Components of a Strong Application Package

Erika Jo Brown and Giuseppe Taurino English and Creative Writing MAY 24, 2021

Developing a Writing Practice

Cedric Tolliver, English Mark Sursavage, Writing Center

MAY 25, 2021

Strategies for Thriving in Graduate School

Morgan McCain, Counseling and Psychological Services The Graduate School Experience, Graduate Student Roundtable

MAY 26, 2021

Getting Your Research out There: Conference, Proposals, and the Elevator Pitch

Richard Armstrong, Modern and Classical Languages Max Rayneard, Honors College

Applying to Fellowships and Major Awards

Ben Rayder, OURMA

MAY 27, 2021

Digital Humanities

Lorena Gauthereau, US Latino Digital Humanities

MAY 28, 2021

Bootcamp Wrap-Up and Research Kick-Off









Eligibility for 2023 Cohort:

- UH main student in the humanities with an expected graduation of Fall 2023 or Spring 2024
- Students highly motivated to conduct research and attend graduate school in the humanities
- Students from backgrounds underrepresented in the academy and others with a demonstrated commitment to the goal of building a diverse academy in the humanities

Application Deadline:

Mid-November 2022 (TBA)

2022 Mellon Research Scholars

Congratulations to the following students selected for the 2022 Mellon Research Scholars program. These students will conduct full-time, faculty-mentored research in the humanities during summer 2022.

- Arreon Allen
- Naveera Maj
- León ValadesEsraa Wasel

- Jason Bang
- Victoria Rances
 - Alfonso Reyes
- Dara De Silva
 - ra De Silva Miranda
- Dala De Silva

· Carlos Campos Jr

- Genesis Santillan
- Jenna Goodrich
- Andres Tello
- ----
- lames lan
- James lan
 Thompson
- Alexander Kerry
- Tela Todd

2021 SUMMER UNDERGRADUATE RESEARCH FELLOWSHIP



The 2021 **Summer Under-graduate Research Fellow-ship** (SURF) program launched in June with 78 SURF Recipients. SURF students met the challenge of the continuing pandemic and provided remote research and communication plans to carry out their research in the event such flexibility was required. The students came together on Zoom each week for the virtual lecture series and learned

about data science and management, how to seek out and apply to competitive fellowships and graduate programs, and how to develop posters and present their work.

2021 SURF BROWN BAG LECTURE SERIES

WEEK 1

Responsible Conduct of Research

Laura Gutierrez and Penny Maher Division of Research

Hanako Yoshida Psychology

Jeremy May Chemistry

WEEK 2

Getting the Most Out of Mentorship

Norah Gharala History and OURMA Alumni Panel

WEEK 3

Expectations and Challenges in Research

David Mayerich Electrical and Computer Engineering

Jakoah Brgoch Chemistry

Sarah Ehlers English

Luis Medina Psychology

WEEK 4

Managing Your Research Data

Claudia Neuhauser Division of Research

Reid Boehm University of Houston Libraries

WEEK 5

July 4th Holiday

WEEK 6

Applying for Fellowships and Major Awards

Ben Rayder and Nimra Zubair OURMA

WEEK 7

Building an Effective Resume and CV as a Researcher

Adalia Espinosa and Priyanka Raut *University Career Services*

WEEK 8

Applying to Graduate School

Panel of Faculty, Staff, and Graduate Students

WEEK 9

Developing an Effective Poster and Presentation Etiquette

Stuart Long
OURMA

WEEK 10

Celebration & SURF Alumni Panel

SPECIAL THANKS TO SURF AND OURMA ALUMNI FOR THEIR PARTICIPATION:

Paulina Ezquerra Christina Gligorova Ersie Gentzis Vincent Laroche Anushka Oak Gabby Olinger Verónica Ordóñez Pierce Popson

2021 SUMMER UNDERGRADUATE RESEARCH FELLOWSHIP



Amoolya Agadi Mentored by Bradley Smith Psychological, Health, & Learning Sciences

Using Summer Camp to Improve Well Being and Development Assets of Underprivileged Children



Anaga Ajoy Mentored by Pranav Parikh Health and Human Performance A Novel Method for the Assessment of Precision Force Control in Children



Syed Ali Hamza Abidi Mentored by Andreas Mang Mathematics From PDE-Constrained Optimization to DNNs



Laraib Arain Mentored by Billy Hawkins Health and Human Performance Identifying Youth Sports Programs in the Houston Area and Their Pros and



Edward Armijo Mentored by Alamgir Karim Chemical and Biomolecular Engineering

Shape-Selective Filtration Using Block Copolymer Membranes



Eliane Baaklini Mentored by Priyanko Guchait Hotel and Restaurant Management Frontline Employees vs Service Robots: Development and Validation of

Empathetic Creativity Scale



Anne-Elisabeth Baker Mentored by Andrew Kudless Architecture

Precious Plastic: Creating a Circular Campus Through Community-Based Plastic Recycling



Cody Betzner Mentored by Xiaonon Shan Electrical and Computer Engineering

Creating a System to Remotely Monitor the Impedance Change of Cement



Karina Bhattacharya Mentored by Jeff Feng Industrial Design

Body-Powered Prosthesis Design for a Patient with a Partial Hand Amputation



Aspen Bickel Mentored by Elizabeth Farfán-Santos Anthropology

Fatphobia as a Hinderance to Illness Diagnosis



Lauren Black Mentored by Natalia Zhivan **Economics**

Addressing the Labor Force Participation Disparity Between Veterans and Non-Veterans



Caleb Broodo

Mentored by Gemunu Gunaratne Physics

Almost-Ideal Filtering: A Demonstration of New Signal Processing Tools in GW150914, The First Observation of Gravitational Waves



Zosia Bulhak Mentored by Willa Friedman **Fconomics**

Underrepresentation of Women in Sports Media Impacts Their Social Media Marketability



Ana Cenobio Mentored by Yi-Chao Chen Mechanical Engineering

Theoretical Framework for the Mechanics of the Diaphgram



Justin Chan Mentored by Eric Bittner Chemistry

How Biexciton Systems interact in a Quantized Radiation Field



Baichuan Chi

Mentored by Amaury Lendasse Information and Logistics Technology

A Multi-ELM Model for Incomplete



Colin Copeland Mentored by Dimitrios Georgios Hatzignatiou Petroleum Engineering Evaluation of Carbon Emissions, Energy Resources, and Climate Mitigation



Raul Cruz Quintanilla Mentored by Christopher Clarke Economics The Effects of Remittances on Population's Income Share



Mentored by Jeremy May Chemistry Synthesis of (-) - Indolactam V for the Total Synthesis of Cytoblastin

Ricardo Del Rio



Taadesha Denson Mentored by Alexander Statsyuk Chemistry The Mechanism of Ubiquitin Ligase in Protein Degradation



Maya Dompier Mentored by Sarah Ehlers English Jane Mayhall and the Recovery of Black Mountain College Women's Poetry



Akash Doshi Mentored by Yi-Lung Mo Civil and Environmental Engineering Development of Wireless Smart Concrete Sensing Technology Using Carbon Nanofiber Aggregate



Chenelle Etuk
Mentored by Ke-He Ruan
Medicinal Chemistry and
Pharmacology
The Development of Single Polypeptide
Chain Insulin



Michael Halamicek Mentored by Thomas Teets Chemistry Iridium-Coumarin Ratiometric Oxygen Sensors



Audrey Gale Hall Mentored by Caryn Tamber-Rosenau Comparative Cultural Studies Outing Tsara'at, the Torah's Queer Plague



Mary Catherine Hambrick Mentored by Julia Wellner Geology Smear Slide Analysis to Assess Variability of 210-PB Dates in Sediment Cores from Offshore Thwaites Glacier, Antarctica



Omar Harb
Mentored by Melika
Shirmohammadi
Human Development and
Consumer Sciences
Well-being of Remote Workers Amidst
the Pandemic



Jennifer Hernandez Mentored by T. Randall Lee Chemistry Carbonate-Terminated Self-Assembled Monolayers for Mimicking Polycarbonate Surfaces



Summer Ijarah Mentored by Clayton Neighbors Psychology Incarcerated Substance Use: Does Procedural Justice Play a Role?



Midhat Jafry
Mentored by Lorraine Reitzel
Psychological, Health, and
Learning Sciences
Perceived Social Support Attenua

Perceived Social Support Attenuates the Association between Stress and Health-related Quality of Life among Adults Experiencing Homelessness



Daniel Johns Mentored by Douglas Erwing History, Honors College Permanently Recording History to Mitigate Censorship and Data Rot



Gabrielle KosteckiMentored by Therese Kosten **Psychology**Development of a SARS-CoV-2 Vaccine



Natalie Kubosh Mentored by Yoon Koh Hotel and Restaurant Management The Community's Impact on Crowdfunding Success



Brennen Kuhn Mentored by Michael Murphy Earth and Atmospheric Sciences Active Faulting, Seismicity and their Relationship with Megathrust Ramps and Inherited Structures in Western Nepal: Insights from a Three-Dimensional Model



Christine Le Mentored by Richard Garner English, Honors College Q-Anon and the Superego



Megan Lean Mentored by Beau Alward Psychology Validation of Custom Antibodies Against Androgen Receptors Alpha and Beta in Astatotilapia Burtoni



Arya Loloee Mentored by Jakoah Brgoch Chemistry Evaluating the Hardness of Yttrium Ruthenium Borides



Cindy Luu Mentored by Liming Li Physics Computing the Radiant Energy Budget of Enceladus



Vanessa Marcano Mentored by Erin Kelleher Biology and Biochemistry Comparing Expression of Myc Between Drosophila Genotypes of Hybrid Dysgenic Offspring at the Larval Stage



Andrew Martinez
Mentored by Olafs Daugulis
Chemistry
Strong Base Mediated Intramolecular
Cyclopropanation



Mark Mathews Mentored by Beau Alward Psychology Androgen Receptor Mutation Affects Testes Organization in an African Cichlid A. Burtoni



Reagan McCawley Mentored by Adam Fetterman Psychology How Inducing Empathy Affects Metaphoric Speech and Emotions



Cameron Mitchell Mentored by Casey Dué Hackney Classical Studies Valuations of Truth in Indo-European Foic



Sondos Moursy
Mentored by Christine LeVeaux-Haley
Political Science
Barriers in Re-entry Faced by Formerly
Incarcerated Women



Dorothy Mwakina Mentored by Yingchun Zhang Biomedical Engineering Assessing Brain Function During Stroke Recovery Using Multimodal EEG-fNIRS Concurrent Analysis



Anh Nguyen
Mentored by Venkatesh Balan
Engineering Technology
Integrated Process for Red Algae
Culturing and Processing High Value
Algal Products: EPS & CPS, B-PE and



Connor Nguyen Mentored by Gemunu Gunaratne Physics Chaotic Dynamic Through Its Invariance That Does Not Depend On

Initial State



Hoang Nguyen Mentored by Shailendra Joshi Mechanical Engineering Analysis of Ductile Damage with Sigmoidal Hardening



Khoa Nguyen Mentored by Jeffrey Rimer Chemical and Biomolecular Engineering Identifying Potential Modifier To Inhibit Uric Acid Growth in Dolphins



Ayse Ozkan Mentored by Frank McKeon Biology and Biochemistry Multidrug Resistance Mechanisms in High-Grade Serous Ovarian Cancer: Literature Review



Jacob Pakula Mentored by Dimitrios Georgios Hatzignatiou Petroleum Engineering A Deep Learning Approach for Screening Enhanced Oil Recovery Methods



Aadarshi Patel Mentored by Nikolaos Malamataris Chemical and Biomolecular Engineering Drag Coefficient for Stokes Flow



Kala Pham Mentored by Chandra Mohan Biomedical Engineering In-Vitro 3D Glomerular System for High-Throughput Biomarker Screening



Thi Phan Mentored by Ali Kamrani Industrial Engineering An Integrated Approach to Design and Manufacturing of an Artificial Leg



Braian Pita Mentored by Dani Madrid-Morales Journalism Sentiment and Topic Classification Aproaches to African News Articles

About COVID-19 and Vaccines



Mentored by Aaron Becker Electrical and Computer Engineering Improving Capabilities and Performance of Magnetic Mili-Scale Swimmers

Jocelyn Ramos



Maria Eugenia Romero Mentored by Islam Rizvanoghlu **Economics** Please California my Texas: Would Adopting the Low Carbon Fuel

Standard Impact Texas' CO2 Emissions?



Nivriti Sabhnani Mentored by Jose Contreras-Vidal **Electric and Computer Engineering** Biomechanical Simulation of Pediatric



Aniqua Salwa Mentored by Anka A. Vujanovic Psychology Suicide Ideation and Suicide Risk among Latina University Students: Examining the Main and Interactive Effects of Childhood Maltreatment and



Lujayna Taha Mentored by Jose Contreras-Vidal **Electrical and Computer** Engineering Process of Device Communication and Hardware-Software Integration



Daniela Tovar Mentored by Jennifer Vardeman Communication Comparison of Pelvic Floor Disorder Communication Between Younger and

Older Women in Rural Communities



Zoe Vela Mentored by Teresa Chapman School of Theatre and Dance Best Practices in Injury Prevention for High School Drill Team Dancers



Mallory Walters Psychology

Casey Freeman

Mentored by Lars Grabow Chemical and Biomolecular Engineering

CO and NO Co-Oxidation in PdCu Catalysts

Nikki Garza

Mentored by Jaye Derrick Psychology

Celebrity Crushes: The Role of Understanding Attitudes and Relationships

Lantz Han

Mentored by Agnes DeFranco Hotel and Restaurant Management

The Moderating Effect of Food Service Experience on the Relationship of Gender Diversity of Crowdfunding Creator and Funding Success Lantz Han & Dr. Defranco

Salman Igbal

Mentored by Elizabeth Fletcher Decision and Information Sciences

The Compressed Upstream Supply Chain of mRNA COVID-19 Vaccines

Anastasia Martinez

Mentored by Jacinta Conrad Chemical and Biomolecular Engineering

Dynamics of Viral Nanoparticals as Reporters in Lateral Flow Essays

Ava Nelson

Mentored by Jose Luis Contreras-Vidal Electrical and Computer Engineering

Art Science AI: Neural Basis of Creativity

Jack O'Connell

Mentored by Richard Armstrong Modern and Classical Languages

Political Violence in the Late Roman Republic

Amrutha Padmasolala

Mentored by Saira Rab Psychological, Health, & Learning Sciences

Dating During the Pandemic with an Emphasis on Dating Apps

Arian Parsaie

Mentored by Vivien Coulsoun-Thomas University Eye Institute

An Analysis Characterizing the Composition of the Corneal Limbal Epithelial Stem Cell Niche (LSCN)

Arshia Riaz

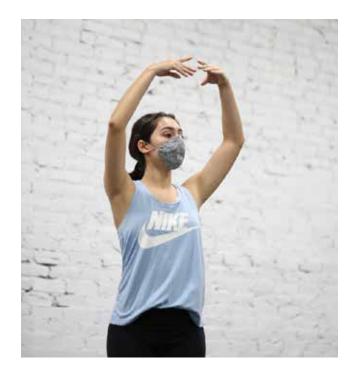
Mentored by Charles Layne Health and Human Performance

The Function of Methodology to Changing Gravitational Load During Treadmill Walking

Alondra Torres

Mentored by Josiah Rector History

Houston's Urban Farming Scene Research Project





2022 POSTER PRESENTATIONS

Undergraduate Research Day celebrates the achievements of all University of Houston undergraduates pursuing faculty-mentored research. Congratulations to the following students.

Alejandro Aguilar

Mentored by Lorena Gauthereau Mexican American Studies

James L. Novarro Digital Collection

Alexis Allamprese

Mentored by Tai-Yen Chen Chemistry

Visualizing Single-Molecule Fluorescence Imaging Beyond the Diffraction Limit

Zahir Amin

Mentored by Khurram Nasir Houston Methodist, Cardiology

Social Vulnerability and Premature Cardiovascular Mortality Among US Counties, 2014 to 2018

Thomas Avent

Mentored by Zelma Oyarvide Tuthill and Rachel Afi Quinn Sociology; Comparative Cultural Studies and Women's, Gender, & Sexuality Studies

Black. Migration. Houston.

Briana Azad

Mentored by Ann Cheek Biology and Biochemistry

Mammal Biodiversity Across Houston's Bayous

Lucinda Ba

Mentored by Andrew Kapral Honors, Engaged Data Science

Examining Clinical Treatment Patterns in Adults Diagnosed with Social Anxiety Disorder (SAD)

Thomas Broekhuis

Mentored by Ioannis Konstantinidis Honors, Computer Science

Uncovering Relationships Between Climate Change and Quality of Life

Dylan Campbell

Mentored by Hieu Nguyen Chemistry

Investigating Glutathione Tolerance of a Macrocyclic Dinuclear Organoiridium Catalyst in Transfer Hydrogenation

Carlos Campos Jr

Mentored by Lorena Gauthereau and Linda Garcia Merchant Mexican American Studies and U.S. Latino Digital Humanities

Shifting Demographics in Houston

Cole Carter

Mentored by Minjung Shin Hotel and Restaurant Management

Revising Hotel SERVQUAL amid COVID-19

Jennifer Csicsery-Ronay

Mentored by Ioannis Kakadiaris Electrical and Computer Engineering

A Data-driven, Graphical Approach to Dismantling Illicit & Counterfeit Medicine Markets (ICMs)

Jared Davis

Mentored by Jerrod Henderson Chemical and Biomolecular Engineering

An Integrated Approach Towards Increasing Black Male Engineering Graduate Outcomes

Natalie Dean

Mentored by Kristina Neumann History

Coinage of Zenobia, Rebel Queen of Palymra

Caycel John Desales

Mentored by Greg Morrison Physics

Actin under stress: A Coarse Grained Approach

David Edquilang

Mentored by Jeff Feng Industrial Design

3D Printed Limb Prosthesis

Susette Flores

Mentored by Elizabeth Gregory English

Mastery of The Visual Tapestry

Smiti Gandhi

Mentored by Lionnel Ronduen and Jennifer Bryan UH STEM Center; Veterans Affairs, Baylor College of Medicine

Characterizing the Prevalence and Nature of Cannabis Use Disorder and Comorbidities in Older Veterans

2022 POSTER PRESENTATIONS

Emma Garcia

Mentored by Kara Manning Psychology

The Moderating Role of Fatigue Sensitivity in the Relation between Depression and Alcohol and Opioid Misuse among Adults with Chronic Low Back Pain

Sophie Grubbs

Mentored by Donna Kacmar Architecture

Timeline of Accommodation and Travel

Tatiana Haddad

Mentored by Susan Rasmussen Comparative Cultural Studies

Tourism in Wadi Rum, Jordan: An Anthropological Examination of the Bedouins' Contemporary Cultural Adaptation

Nikki Hammond

Mentored by Lars Grabow Chemical and Biomolecular Engineering

Using Predictive Modeling to Improve Catalyst Performance in Low Temperature Diesel Combustion

Jacob Higdon

Mentored by Andrew Kapral Honors, Engaged Data Science

LGBTQ Overrepresentation, Experience, and Mental Health Outcomes in Federal and State Prisons by State

Audrey Huang

Mentored by Daniel Price Honors, Data and Society

The Evolution of the Collaborative Model in Resource Matching Between CHWs and Undergraduate Students

Waldemiro Junqueira

Mentored by Jerrod Henderson Chemical and Biomolecular Engineering

Exploring Undergraduate Engineering Experiences

Margaret Kamholz

Mentored by Andrew Kapral Honors, Engaged Data Science

Investigating Treatment Barriers to Those with Eating Disorders

Seun Lagbenro

Mentored by Hanako Yoshida Psychology

Infant Attention to Mouth During Expressive and Still-Face Trials

Brian Lee

Mentored by Jeff Feng Industrial Design

The Humanization of Equipment for Occupational Therapy Patients

Carolina Lopez-Herrera

Mentored by Lorena Gauthereau Mexican American Studies

1917- 1918 Influenza Epidemic Project

Alexander Mai

Mentored by Richard Meisel Biology and Biochemistry

Assessing a Possible Regulatory Network of Obp56h in Drosophila Melanogaster

Piya Malhan

Mentored by Bradley Smith Psychological, Health, & Learning Sciences

Prosocial Outcomes of Mindfulness for College Students in Terms of Game Theory

Jayda Martinez

Mentored by Lorraine Reitzel Psychological, Health, & Learning Sciences

Guest Support for Outdoor Smoke-Free Policies within a Homeless Shelter

Bryan Medina

Mentored by Bradley McConnell Pharmacological and Pharmaceutical Sciences

A Long-acting β arrestin "Biased" Agonist to Selectively Activate AT1R to Confer Cardioprotection During Heart Failure and COVID-19 Cardiovascular Complications

Hana Mohamad

Mentored by Johanna Bick Psychology

Neural correlates of Emotion Regulation In Syrian Refugee Children: An ERP Study

Raul Caballero Montes

Mentored by Meidi Gu UT MD Anderson Cancer Center, Immunology

Manipulation of MAP3K Signaling to Improve CAR-T Cell Therapy

Mohammadmehdi Mortazavi

Mentored by Jeff Feng Industrial Design

Assisting Children with Hand and Wrist Spasticity with 3D Printing and Elastic Materials

Jalal Mohsin

Mentored by Khashayar Hematpour EP Heart/UT Physicians

Post Left Ventricular Assist Device Implantation Ventricular Tachycardia

Steven Nguyen

Mentored by Qin Feng Biology and Biochemistry

Identifying the Role of IncRNAs in CRPC

Steven Nguyen

Mentored by Qin Feng Biology and Biochemistry

Identifying the Role of IncRNAs in CRPC

Kim Nguyen

Mentored by Christina Miyawaki Graduate College of Social Work

Vietnamese Aging and Care Survey (VACS) Wave 2: Sociodemographic and Health Characteristics of Vietnamese Older Adults and Family Caregivers in Houston, Texas

Nimra Niazi

Mentored by Joyce Ogunrinde Health and Human Performance

College Student-Athlete: The Effect of Athletic Identity on Student-Athlete Wellbeing

Radha Nune

Mentored by Chandra Mohan Biomedical Engineering

ALCAM Deficiency Dampens Renal Inflammation in Lupus Nephritis

Anushka Oak

Mentored by Benjamin Tamber-Rosenau Psychology

Searching for Gait Markers of Cognitive-Motor Dual-task Interference using Machine Learning

Daniel Palacios

Mentored by Terry Hill NASA - Johnson Space Center

Taxonomical Modeling and Classification in Space Hardware Failure Reporting

Dwija Parikh

Mentored by Andrew Kapral Honors, Engaged Data Science

Decoding Administrative Data for Process of Care in Cancer Treatment

Kala Pham

Mentored by Andrew Kapral Honors, Engaged Data Science

Identifying Perceptions and Intent Surrounding the HPV Vaccine

Kala Pham

Mentored by Kimberly Pilkinton Clinical Science, UH College of Medicine

Assessing and Expanding Gynecological Knowledge in Houston Communities

Steven Ramirez

Mentored by Jonny Wu Earth and Atmospheric Sciences

Searching for Slabs within the Earth's Mantle through Tomographic Analysis of the Pacific Basin

David Rincon

Mentored by Donna Kacmar Architecture

The Columbia Tap Trail - Measuring Heat Island Effect and Air Quality Discrepancies

Alexis Ruiz

Mentored by Meghana Trivedi Pharmacy Practice and Translational Research

Effects of ADGRF1 Overexpression on Phospho- and Total HER2 Proteins by IHC in HER2+ Breast Tumors in Vivo

Parsa Safa

Mentored by Mahdi Safa Civil and Environmental Engineering

The Role of HydroDiesel in Sustainable Development and Economic Growth

Ritu Sampige

Mentored by Brenda Rhoden and Cintia de Paiva Honors, Leadership Studies; Ocular Surface Center, Baylor College of Medicine

Utilizing Conjoined Mice Models to Explore the Aging Lacrimal Gland

Quratulain Shekoh

Mentored by Noorulain Shekoh Opthalmology and Valley Retina Eye Institute

Association of Visual Acuity in MacTel 2

Zachary Shilling

Mentored by Candice Alfano Psychology

Childhood Trauma Severity is Associated with Objective Sleep Disturbance but not Elevated Cortisol

Gundeep Singh

Mentored by Andreas Mang Mathematics

Effective Numerical Schemes for III-Posed Inverse Problems

Saamiya Syed

Mentored by Greg Morrison Physics

Self-assembly and Nonlinear Rheology of Crosslinked Semiflexible Polymer Networks

Divya Thomas

Mentored by Hanako Yoshida Psychology

Social Gaze Patterns During Play in Children with Autism Spectrum Disorder

Ian Thompson

Mentored by Kristina Neumann History

Religious Life in Ancient Damascus: A Study Through Coins

Samuel Tran

Mentored by Douglas Erwing Honors, History

The Effect of COVID-19 on Third Ward Food Distribution Attendance

Olivia Tran

Mentored by Gomika Udugamasooriya Pharmacological and Pharmaceutical Sciences

Evaluating Cytotoxic Activity of KRAS-Targeted Peptoids

Ekta Upadhyay

Mentored by Sang-Hyuk Chung Biology and Biochemistry

ML265 Promotes PKM2 Tetramerization and Reduces Cell Proliferation in Cervical Cancer Cells

Elisabeth Walla

Mentored by Michael Zvolensky Psychology

The Role of Anxiety Sensitivity Among Latinx COVID-19 Survivors

Nayani Wickramaratne

Mentored by Vedhus Hoskere Civil and Environmental Engineering

Intelligent Ariel Robots for Autonomous Wind Turbine Blade Maintenance

Hannah Wolken

Mentored by Andrew Kapral Honors, Engaged Data Science

Mapping Advanced Coursework: The Role of School Attendance Boundaries and Income Segregation



2022 GROUP PRESENTATIONS

Ishmam Alam, David Mullens, and Jagath Nambiar

Mentored by Rosenda Murillo Psychological, Health, & Learning Sciences

Perceived Workplace Safety is Not Associated with Hypertension among U.S. Adults

Arfa Ali, Jhanvi Bhatt, and Kristin Dinh

Mentored by Rosenda Murillo Psychological, Health, & Learning Sciences

Food Insecurity is Associated with Moderate and Severe Psychological Distress in Latino Adults

Faith Amerson, Sarosha Momin, Ana Morales, Justine Samaroo, and Priya Thomas

Mentored by Laura Lee College of Education

UH CODE RED: Menstrual Hygiene Needs of Individuals on the University of Houston Campus

Hufsa Arain, Caroline Sizemore, and Phuongthy Tran

Mentored by Bonner Leaders Program Honors College

Writing to Inspire Successful Education: Analyzing the Effects of Mentor Confidence on Mentee Performance

Tiffany Bui, Hannah Reeves, and Michelle Tran

Mentored by Bonner Leaders Program Honors College

The Effects of Science Mentoring on Mentee Confidence

Brandon Castaneda, Edwin Quintanilla, and Iillian Voehl

Mentored by Mahdi Safa Civil and Environmental Engineering

Plastic Bricks, The Future for Infrastructure

Vyshnavi Davuluri, Zunayra Hemani, and Ronald Thomas

Mentored by Marc Hanke Honors, Biology and Biochemistry

The Socioeconomic Impacts of COVID-19

Anayeli Euceda, Alyssa Green, Michelle Nguyen, Kala Pham, and Tracy Vu

Mentored by Bonner Leaders Program Honors College

Speak It Into Existence: Empowering Women Through Public Speaking

Shane Foreman, David Nguyen, Diya Patel, and Samiha Zaman

Mentored by Bonner Leaders Program Honors College

How has the COVID-19 Pandemic Affected Traditionally Disadvantaged Students Taking the ACT in a Low-income Houston High School?

Esteban Gomez, Dynesse Lapizar, and Josue Ramirez-Torres

Mentored by Mahdi Safa Civil and Environmental Engineering

Are Hempcrete Blocks a Reliable Replacement in the Construction Industry?

Dynesse Lapizar and Jocelyn Zarazua

Mentored by Mahdi Safa Civil and Environmental Engineering

King Solomon's Temple a Cornerstone for Modern Construction

Mark Mathews and Peijun Zhao

Mentored by Bonner Leaders Program Honors College

Evaluating SAT and College-based High School Mentorship Program Effectiveness from Fall 2019 to Fall 2021

Noor Shabaneh and Sophia Sierra Quintero

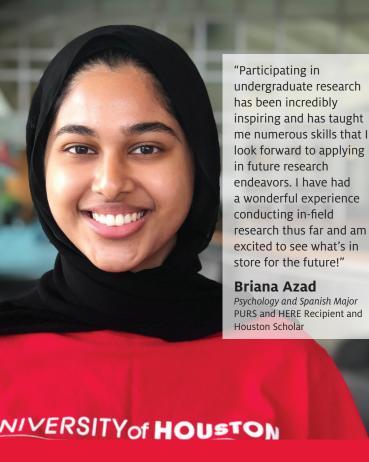
Mentored by Bonner Leaders Program Honors College

Evaluating the Effectiveness of a Math Mentoring Program on Underserved 7th-Grade Students in HISD

Neha Sunkara and Samuel Tran

Mentored by Michelle Belco Honors, Political Science

Comprehending Institutional Program Practices of Texas Food Distribution Organizations



"Participating in undergraduate research has been one of the most formative experiences for me here at UH. Through **OURMA** research opportunities, I discovered and developed my passion for chemistry research, and plan to pursue a Ph.D. in chemistry. I will take all the lessons I learned as an undergraduate researcher with me as I move forward."

Kevin Fleming

Chemical Engineering Major HERE, SURF, PURS, and DAAD RISE Recipient



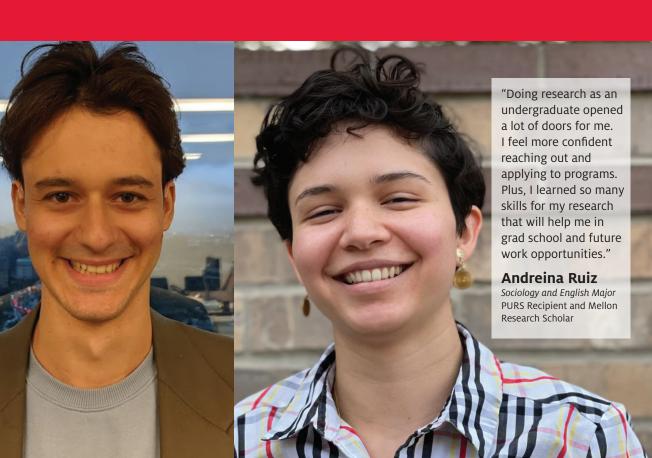
THE OFFICE OF UNDERGRADUATE RESEARCH AND MAJOR AWARDS

Whatever your research interests are, the Office of Undergraduate Research and Major Awards can get you connected and starting your research project today.

"I will always be grateful to OURMA for introducing me to the world of research by providing a supportive and collaborative environment in which I was empowered to explore my interests. Having the support of my advisors and peers demystified the research process, and inspired me to make research a foundational pillar of my future academic plans."

Paul Vaughn

Economics Major SURF and HERE Recipient



University of Houston

The Honors College

Office of Undergraduate Research and Major Awards

M.D. Anderson Library 4333 University Drive, Room 212

Telephone: 713.743.3367 Fax: 713.743.9015

UndergraduateResearch.uh.edu

Connect with @UHOURMA







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OFFICE OF UNDERGRADUATE RESEARCH AND MAJOR AWARDS