



**2025 UNDERGRADUATE
RESEARCH DAY**
CELEBRATING 20 YEARS

Thursday, April 10, 2025



2025 UNDERGRADUATE RESEARCH DAY

Thursday, April 10, 2025

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

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

Elizabeth D. Rockwell Pavilion

Diane Z. Chase, Ph.D.

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

Claudia Neuhauser, Ph.D.

Vice Chancellor for Research, University of Houston System
Vice President for Research, University of Houston

Stuart A. Long, Ph.D.

Associate Dean of Undergraduate Research and the Honors College
Moore's Professor, Department of Electrical and Computer Engineering
University of Houston

Rikki Bettinger, Ph.D.

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

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

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

Access the Online Symposium:

<https://symposium.foragerone.com/urday2025/registration>

The Office of Undergraduate Research and Major Awards thanks the Office of the Provost, the Division of Research, and the Honors College for their generous and continued support.



Office of Undergraduate
Research and Major Awards
The Honors College



The OURMA Team: Kalena Holeman, Rikki Bettinger, Livia Garza, Katie Welsh, Ben Rayder, and Stuart Long

WELCOME FROM THE OURMA TEAM

Today we celebrate the 20th annual Undergraduate Research Day!

We are excited to welcome you to Undergraduate Research Day. This event celebrates undergraduates from all colleges and disciplines across the University of Houston who are engaged in faculty-mentored research. A significant number of presenters are showcasing research carried out through OURMA programs, including the Summer Undergraduate Research Fellowship, Energy Scholars, Mellon Research Scholars, and Research for Aspiring Coogs in the Humanities. You'll find OURMA programs and participants highlighted in the pages that follow. Many other presenters are sharing research carried out in other programs, labs, and experiences across UH. University of Houston students are curious, driven, and engaged. Their modes of thinking – probing, astute, data-driven, and creative – are a source of optimism for us all.

Today also marks the celebration of 20 years of Undergraduate Research Day. On pages 6-13 in this book, you'll find a special feature on the history of URD and what it has meant for the University of Houston, students and faculty alike. This would not have been possible without the sustained commitment of the Office of the Provost, the Division of Research, and the Honors College, as well as hundreds of faculty from across UH. For today's event, URD presenters have collaborated with mentors from health and human performance to finance, music to electrical engineering, and history to biochemistry; we are fortunate at the University of Houston to have such dedicated faculty willing to share their time and expertise. You can find the full list of presenters and their mentors on the final pages of this book.

With these supporters, the University of Houston boasts a vibrant, robust undergraduate research community which makes a direct impact on student success, and this community continues to grow. In the last year, the Office of Undergraduate Research and Major Awards has supported over 358 faculty-mentored student research projects and awarded over \$760K in student scholarships. It comes as little surprise, then, that this year saw a 20% increase in poster submissions

for today's event. With 292 posters mentored by faculty from 14 UH colleges and schools, today marks the largest URD event yet.

These UH undergraduate researchers continue to be some of the most competitive candidates for major awards. In the last year our students have been named recipients of the Phi Beta Kappa Key into Public Service Scholarship, DAAD RISE program, Sumners Scholarship, and Critical Language Scholarship. With 14 Coogs named as Fulbright recipients for 2024-2025, the University of Houston was again named a Top Producing Fulbright Institution, the fourth time it has received this prestigious designation in the last six years. Additionally, psychology student Mielad Ziaee, a 2024 Truman Scholar, was the third ever UH student to receive the Marshall Scholarship, which will allow him to pursue master's degrees at the University of Edinburgh and the London School of Economics. Additionally, English major and OURMA student worker Kalena Holeman was named a Gates Cambridge Scholar, only the second UH student in history. Kalena will complete a Master of Philosophy in Classics at the University of Cambridge. We couldn't be more thrilled for Mielad and Kalena, and we know that the UK is receiving two of UH's most promising scholars.

The dedicated staff and faculty in OURMA were joined this year by Katie Welsh, a '24 alum who earned her B.A. in Strategic Communication with a concentration in public relations. In addition to coordinating the HERE and SURF programs, Katie supports OURMA's efforts to make undergraduate research opportunities widely known to students across the university. OURMA also benefits from the expertise and care of the talented faculty and staff in the Honors College, without whom OURMA's work would not be possible, or so enjoyable.

We are excited to celebrate the research of UH undergraduates, and they are eager to share their projects with you. Thank you for joining us for this special 20th annual celebration of undergraduate research at the University of Houston.

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Office of Undergraduate
Research and Major Awards
The Honors College

Undergraduate Research Day

Thursday, April 10, 2025
4-6 p.m. Poster Presentations
Elizabeth D. Rockwell Pavilion
M.D. Anderson Library
The Honors College

The Office of Undergraduate Research and Major Awards

University of Houston
The Honors College
M.D. Anderson Library
4333 University Drive, Room 212W
Houston, TX 77204-2001

UndergraduateResearch.uh.edu

undergrad-research@uh.edu
@UHOURLMA

Event Program designed by
Julia Brown,
Manager, Office of Communication,
The Honors College

Access the Online Symposium: <https://symposium.foragerone.com/urday2025/registration>



UNIVERSITY OF HOUSTON
Undergraduate Research Day 2010

THURSDAY, OCTOBER 14, 2010
 4:00 p.m.

Elizabeth D. Rockwell Pavilion,
 2nd Floor, M.D. Anderson Library

Poster Presentations by UH Undergraduates

Presented by the Office of Undergraduate Research and The Honors College



UNDERGRADUATE RESEARCH DAY 2015

Thursday, October 22, 2015 4:00 p.m.

Elizabeth D. Rockwell Pavilion & The Honors College, and 2nd Floor, M.D. Anderson Library

UNIVERSITY OF HOUSTON OUR



UNIVERSITY OF HOUSTON

Undergraduate Research Day 2013

Thursday, October 10
 4:00 p.m.

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

Poster Presentations by UH Undergraduates

Presented by
 Office of Undergraduate Research & The Honors College



Undergraduate Research Day 2011

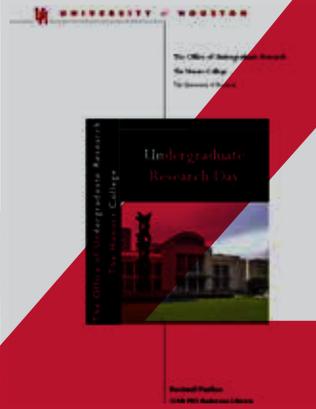
Thursday, October 13
 4:00 p.m.

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

Poster Presentations by UH Undergraduates

Presented by
 Office of Undergraduate Research & The Honors College

UNIVERSITY OF HOUSTON



2018 UNDERGRADUATE RESEARCH DAY

Thursday, October 18, 2018 4:00 p.m.

Elizabeth D. Rockwell Pavilion, The Honors College, 3rd and 2nd Floors, M.D. Anderson Library





UNDERGRADUATE RESEARCH DAY

2017 UNDERGRADUATE RESEARCH DAY

Thursday, October 12, 2017 4:00 p.m.

University of Houston

Undergraduate Research Day 2012
Thursday, October 11 4:00 p.m.
Elizabeth D. Southwell Pavilion & The Honors College
2nd Floor, M.D. Anderson Library
Poster Presentations by Undergraduates
Presented by:
Office of Undergraduate Research & The Honors College
UNIVERSITY OF HOUSTON

2020 UNDERGRADUATE RESEARCH DAY
Tuesday, September 29, 2020 10 a.m. - 5 p.m.
Online www.uh.edu/researchday

UNIVERSITY OF HOUSTON
Research Day 2009

2022 UNDERGRADUATE RESEARCH DAY

2025 UNDERGRADUATE RESEARCH DAY CELEBRATING 20 YEARS
Thursday, April 10, 2025

UNDERGRADUATE RESEARCH DAY
Thursday, October 9 4:00 p.m.

CELEBRATING 20 YEARS OF UNDERGRADUATE RESEARCH DAY

UNDERGRADUATE RESEARCH DAY

CELEBRATING 20 YEARS

by Julia Brown

In 2009, at the fifth annual Undergraduate Research Day (URD), when Stuart Long was asked about the success of that year's event, he stated, "You haven't seen anything yet. We are just getting started." 2025 marks the 20th anniversary of URD, UH's leading multidisciplinary forum for presenting undergraduate research. Coordinated by the Office of Undergraduate Research and Major Awards (OURMA), this event unites students, faculty, staff and departments in celebration of a strong culture of undergraduate research.

URD's Modest Beginnings

OURMA was originally established in 2005 as the Office of Undergraduate Research (OUR) following the appointment of Scott Perry as the UH Honors College's first Associate Dean of Undergraduate Research in 2004. At that time, the campus opportunities for mentored undergraduate research were relatively few. The Provost's Undergraduate Research Scholarship (PURS) had been established and running for a few years with a small faculty roster and just enough funding for 20 students each semester, and often with even fewer applicants.



Undergraduate Research Day, 2007

When Stuart Long was appointed Associate Dean of Undergraduate Research in 2006, he and then Honors College Program Manager Karen Weber worked at building OUR programming that would expand the number and breadth of funded, faculty-mentored research opportunities for undergraduates across the university. Over time, they built up the newly developed Summer Undergraduate Research Fellowship (SURF) program, in which students submit research proposals and secure a faculty mentor with whom they would work closely for ten weeks over the summer. The program would be open to students of all majors, across the university.

With the belief that summer researchers needed a platform to share their findings, OUR created a university-wide event that would cap off the SURF experience—participants would create and display



Undergraduate Research Day, 2023

posters that summarized their findings, with the entire UH community invited to share dialogue. In October 2005, 27 SURF participants presented their research at the first Undergraduate Research Day. Dr. Karen Weber recalls: "The students were terrific presenters and impressive. The faculty were proud of their students and what they had accomplished." The commitment and enthusiasm of both student researchers and

faculty mentors signaled that this successful event had staying power.

The first few URDs were modestly attended, but impactful. Dr. Samantha Rodriguez recalls presenting at the very first URD in 2005 as an undergraduate history major: "I was asked so many questions about my research. Most of the poster presentations were STEM-focused—the thought of presenting research via a poster was novel to me." Her project, titled "How Can Education be Liberation?: Scholar Activists and Radical Scholarship in Houston, Texas," examined oral testimonies in the study of the relationship between ethnic studies and community responsive research. She worked with history faculty member Dr. Luis Alvarez. "Dr. Alvarez's expert guidance not only allowed me to think deeper about my research subject but also made me seriously consider pursuing graduate studies. My inquiry and research method were a launching pad for my graduate research focus into activism and knowledge production." Dr. Rodriguez is now a history professor and co-coordinator of the Bridge (Puente) Program at Houston Community College.

Another presenter at an early URD event was Dr. Holley Love. In 2006, as a biomedical engineering student Holley Love conducted research with Dr. Stanley Kleis through the SURF program. Her project involved the creation of a new cell culture tool to be used in experiments in space; she presented her research at the second URD event. Love said that, at times, conducting research allowed her to work with her professor more as a colleague than as a student: "Instead of being graded and taught, I got to teach [my faculty mentor] about what my research showed," she said. This experience no doubt contributed to her academic trajectory: she went on to complete her doctoral work in mechanical engineering here at UH and is currently a UH instructional associate professor.



In 2006, Holley Love presented on the biomedical engineering research she conducted with then Associate Professor Stanley Kleis; Love is the 2024-2025 UH Faculty Senate President.

By 2009, the event had grown; nearly 100 students presented their research at the fifth annual URD. Faculty and staff were impressed with the event. "I expected some good things," said then UH professor of chemistry Simon Bott, "but I was literally taken aback by the quality of the entire session from the posters to how well it ran."

The Importance of Faculty-Mentored Research

At the heart of URD are high quality faculty-mentored research projects and their proven benefit to undergraduate education. Research is a natural way to extend classroom learning; students can join in on existing research projects or create opportunities to dive further into their own interests. "My favorite [mentoring]



English professor and faculty research mentor Ann Christensen and mentee Victoria Blake.

"Students occasionally get hold of a really exciting idea that cannot be contained in the course of a regular semester. They might write a paper, but there's more to do. There's more they want to do."

Ann Christensen
English Faculty

experiences happen when a student begins with a nagging question or an insight in a short assignment on the discussion board and finds a way to develop the idea in a longer assignment, and then just keeps on moving," says Dr. Ann Christensen, English professor. "Students occasionally get a hold of a really exciting idea that cannot be contained in the course of a regular semester. They might write a research paper, but they find there's more to do. There's more they want to do."

In OURMA programs, students work with faculty mentors for a close view on projects with field-changing impact. Some students conceive, design, and complete their own projects, while other students become integral parts of projects already in progress. These projects can provide a foundation for career-shaping graduate work. Whether or not researchers go on to graduate school, undergraduate research and URD participation give them valuable experience that can contribute to their goals in the long run.

URD provides a forum in which student work can be shared and celebrated by the entire UH community. As much work as the students do in the course of their research, preparing to present at Undergraduate Research Day harnesses yet another skillset. Simply



Undergraduate Research Day, 2024

creating a research poster provides valuable experience they wouldn't necessarily get in the classroom. "Students must carefully decide what and how much information to include in their posters and learn to explain complex ideas clearly without oversimplifying—an invaluable yet challenging skill," says Dr. Hanako Yoshida, a professor in the psychology department.



Undergraduate Research Day, 2022

Students work on coming up with an "elevator pitch" for their research that is accessible to multiple audiences, and at the URD event itself, they practice articulating their research questions, methodologies, and findings for distinct audiences—random visitors, as well as others in their field. "Researchers have to be able to defend, justify, explain and show the relevance of what they do. Presenting at Undergraduate Research Day hones those skills," says Dr. Christensen.

OURMA programs and undergraduate research thrive because of the many generous faculty mentors that supervise eager undergraduates every year. Faculty mentors provide advice, feedback, supervise honors theses, and can go on to support the students' professional trajectory as they apply for major awards and, themselves, pursue academic careers. Both Drs. Christensen and Yoshida have been longtime faculty mentors for and supporters of OURMA-sponsored programming—both have witnessed their mentees progress to procure prestigious awards and professorships at national R1 institutions after participating in mentored research.



Honors College Dean Heidi Appel and URD presenter, 2024

Research Leads to Student Successes

Participating in faculty-mentored research programs and presenting at Undergraduate Research Day fit into a web of student professional and academic successes—many of these students go on to present their research at conferences, publish in top-tier journals, win major awards, and go on to all kinds of professional and academic successes. Dr. Yoshida personally recalls a few standouts from her substantial roster of successful mentees: "Maria Arredondo, a student who presented in the 2009 URD, went on to win an NSF GRFP in 2012 and is now an assistant professor of human development and family sciences at UT Austin. Kevin Darby participated in both SURF and PURS in 2009, and he is now an assistant

professor at Florida Atlantic University. Viridiana Benitez completed the senior honors thesis and is now assistant professor at Arizona State University."

URD's history is filled with endeavors that began as student projects and later expanded in scope and impact. History major Ronnie Turner's 2008 investigation of the personal files of Quinton Mease, a politically active director of the YMCA in Houston's Third Ward, was eventually featured on the television news show "Dan Rather Reports." Biology major Gabrielle Kosteci's 2022 research on the development of an anti-fentanyl vaccine helped her earn a Goldwater Scholarship (and special recognition from Texas Gov. Greg Abbott). Political science major David Paul Hilton's 2023 project examining Eastern European trade sanctions formed the basis of a successful Fulbright grant application to study in Uzbekistan.

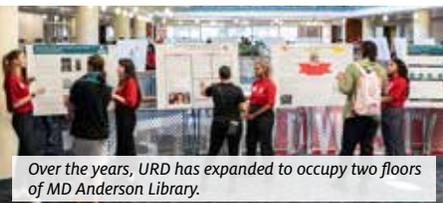
More recently, in 2024, engineering major Thomas "Tico" Hannan's project, with mentor Dr. Gangbing Song and collaborator Jian Chen, involving revolutionary battery monitoring technology won the inaugural university-level Genspiration Prize at the National Academy of Inventors (NAI) conference. The experience has inspired Hannan to pursue a Ph.D. in mechanical engineering. Dr. Song, a longtime faculty mentor and supporter of OURMA programs, is eager to see his mentees achieve so much so early in their careers. "A student's success is my success," he says.

URD and OURMA Programs Grow

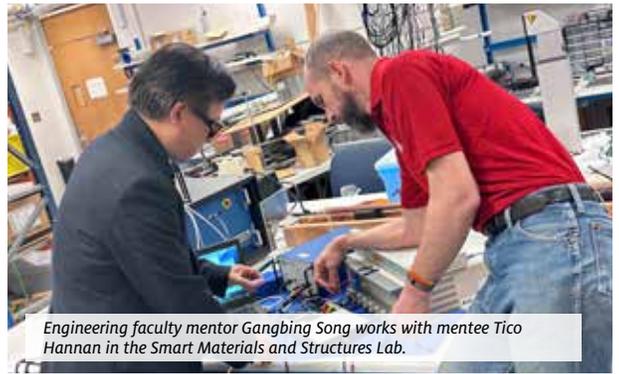
As the SURF program grew, the number of yearly URD presenters grew as well. (OUR would expand URD to include undergraduate researchers from across UH without the requirement of participation in one of its own programs. In 2020, OUR changed its name to incorporate Major Awards.) OURMA gradually added five additional program offerings to PURS and SURF, each providing opportunity for different sectors of UH's undergraduate population. The Energy Scholars program, for example, is a program geared toward students exploring projects in the energy sector. The Mellon Research Scholars program is designed specifically for graduate-school bound students doing research in the humanities.

In the 2023-2024 academic year, OURMA supported 358 mentored research projects (supervised by 206 unique faculty mentors). The office supported students with over \$760K in scholarships, fellowships, and research experiences. OURMA consistently pursues more and various types of funding, getting creative with industry partnerships that result in more research opportunities for undergraduates.

From the event's humble beginnings with only a few presenters and attendees, URD has expanded to include hundreds of projects on display, arranged by college—URD takes over two floors of MD Anderson Library, including The Rockwell Pavilion and The Honors College. Hundreds of students apply to present at URD every year. The event itself is enormous, lively, and, from poster printing to red polo shirts to marshalling dozens of volunteers, it takes months of planning. Any student participating in a faculty-mentored research project is eligible to submit to OURMA's call for proposals and secure a poster slot.



Over the years, URD has expanded to occupy two floors of MD Anderson Library.

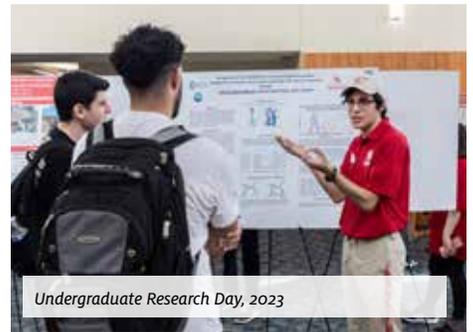


Engineering faculty mentor Gangbing Song works with mentee Tico Hannan in the Smart Materials and Structures Lab.

"A student's success is my success."

Gangbing Song Engineering Faculty

In 2020, URD pivoted online due to the global pandemic, but since then, digital repositories of poster presentations have been developed. The event has acquired an online symposium component. By 2024, URD in-person attendance had increased from pre-pandemic levels.



Undergraduate Research Day, 2023

URD Today

This year, OURMA expects URD to host nearly 1000 students, faculty, staff, and visitors. With 292 posters on display, it is the event's largest showing yet.

Adithi Nythruva, a sophomore psychology major who has participated in multiple OURMA programs—HERE, REACH, SURF, and Houston Scholars—is presenting at URD this year for the first time. "I am especially excited to gain a more comprehensive overview of humanities research conducted throughout campus," she says. Her project, mentored by Dr. Abigail Modaff, examines Jewish female identity post-World War II. "I am looking forward to learning more about other undergraduates' research projects and hard work over this past year."

Students learn a lot from other students at this event: they see themes they are interested in, or people doing research in fields they didn't know about. They are able to ask questions, learn new methods, and get inspired—the enthusiasm of hundreds of URD presenters is contagious. OURMA director Dr. Rikki Bettinger is a first-person witness to the impactful conversations, feedback, and peer support that students offer each other. "Student presenters sometimes come in nervous, particularly if this is their first time presenting their research," she says. "But Undergraduate Research Day gives them a great boost of confidence. They look around and understand they are part of a community."

Thanks to Toby Weber and Peter Simek for earlier reporting on Undergraduate Research Day.

UNDERGRADUATE RESEARCH DAY THROUGH THE YEARS

2005

The first Undergraduate Research Day celebrated 27 poster presentations from participants in the SURF program.



2009

At the fifth annual URD, 94 presenters gathered to present their research, representing nine colleges and 29 different disciplines.



2018

2008

President Renu Khator has been a committed supporter of undergraduate research.



2020

Despite the pandemic, URD continued through a virtual platform.



Undergraduate Research: Stuart Long Reflects

Stuart Long has played many roles since he joined the University of Houston in 1974. He is a Moores Professor in the Department of Electrical and Computer Engineering, and the winner of many professional accolades, including the University Farfel Award and the IEEE Distinguished Achievement Award. As Associate Dean of Undergraduate Research and the Honors College, he also provides leadership for the Office of Undergraduate Research and Major Awards (OURMA) and has been instrumental in making Undergraduate Research Day (URD) the successful annual showcase that this event has been over the past two decades.



Long speaks at URD 2010

Long began demonstrating a commitment to undergraduate research in his early days at UH, when he pioneered a program that recruited undergrads to assist with his own research projects, co-author papers, and travel to conferences. The program became known as “Electromagnetic Undergrads,” or EMUGs. “I have had over 90 students work with me,” Long says. “A good number of those students stayed to acquire graduate degrees at UH—those research experiences became a good departmental recruiting tool.” Undergraduate research on campus was still relatively minimal when Long was appointed Associate Dean of Undergraduate Research in 2006. In that position he expanded his advocacy for funded, faculty-mentored research projects for students of all departments and majors, across the University.



Long confers an “Audience Favorite” poster award at URD 2016

Long promotes research to students by emphasizing the obvious and not-so-obvious benefits. Research allows students to see *why* they need the information they are being given in their classes. Students are familiar with the knowledge dissemination that goes on in the classroom, but as undergraduate researchers, they experience the intensity of the knowledge acquisition aspect of the university, getting a look “behind the scenes.” Research bonds students to their major and helps them establish relationships with faculty mentors that can last throughout their careers. In addition, undergraduate researchers have better graduation rates. Long recommends that students get as much experience outside the classroom as they can.



Long and Provost Diane Z. Chase at URD 2024

Over the years, the growth he has witnessed in the number and size of OURMA programs has been gradual—and is often dependent on the amount of funding available. One significant growth expansion advancement occurred in 2017, when OURMA acquired the first of three \$500,000 grants from the Mellon Foundation, which boosted support specifically for undergraduate researchers in the humanities. “We have done a good job in getting more non-STEM students involved, but we still need a better way to advertise and encourage the non-STEM students to participate in research,” Long says. “Undergraduate research can be even more impactful for non-STEM students, as they typically do not have opportunities for summer internships in their disciplines like engineering students do.”

Long and OURMA are set on achieving some big goals, which include obtaining more outside funding for OURMA research programs. In the next five years, Long would like to incorporate oral presentation sessions into URD, in which students present their research live to an attending audience. He would also like to see an increase in the number of poster presentations. “Could URD feature 500 poster presentations by 2030?” Long muses. With the right funding and resources—certainly. “The talent, energy, and ambition of our undergraduates know no bounds—strengthening the culture of undergraduate research at this Carnegie-designated Tier One research university should be among our highest priorities.”

2025

OURMA celebrates 20 years of Undergraduate Research Day!



URD participation grows and the event expands through the M.D. Anderson Library, where 241 posters were on display.

2024

URD sees its highest participation yet, with 241 posters and over 350 presenters!



UNDERGRADUATE RESEARCH DAY 2025

BY THE NUMBERS



292 EVENT POSTERS



233

UNIQUE RESEARCH MENTORS

236 

INDIVIDUAL PRESENTATIONS

56 

GROUP PRESENTATIONS

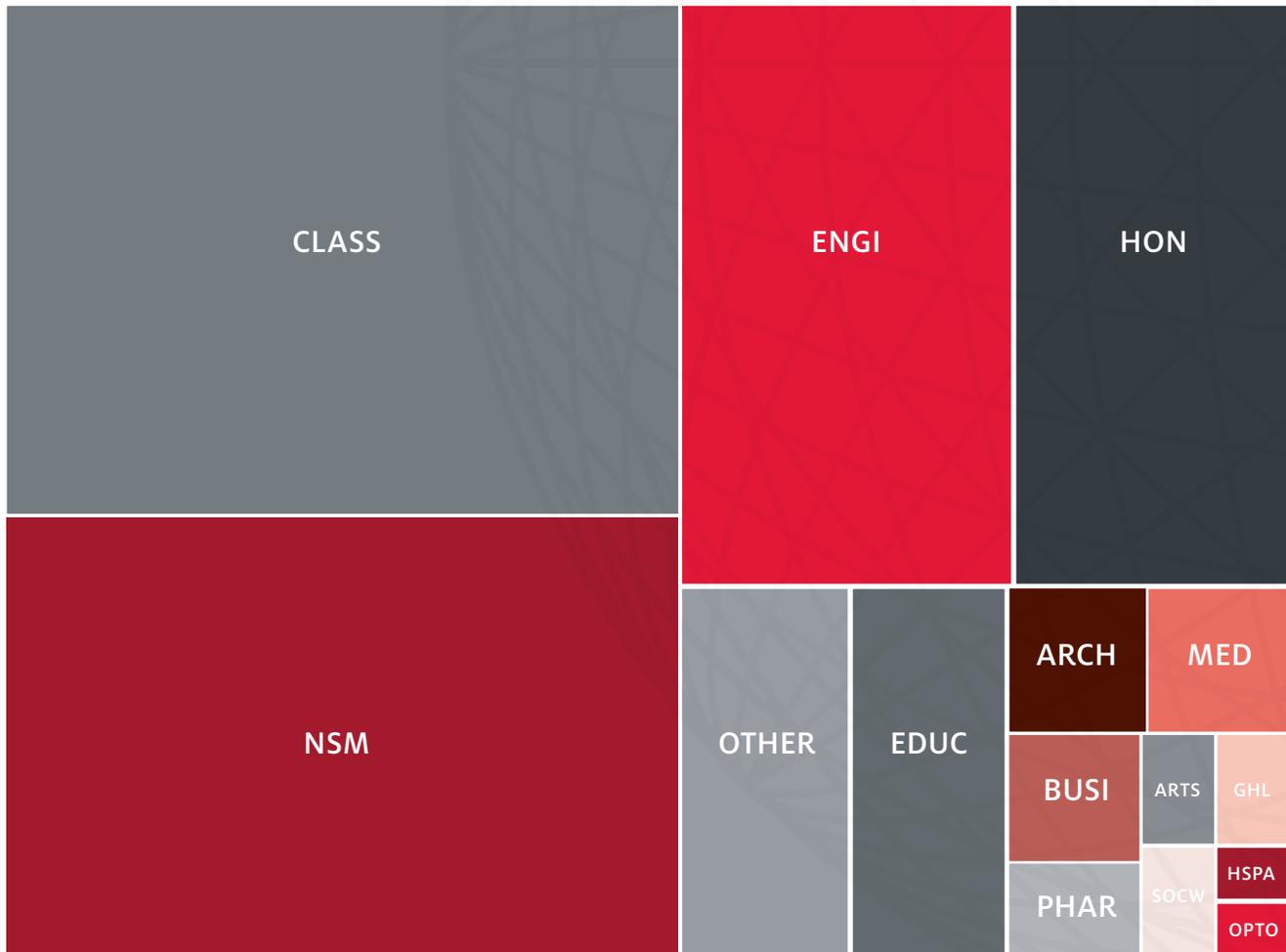
390

STUDENT PRESENTERS



2025 URD RESEARCH MENTORS: 14 UH COLLEGES AND SCHOOLS REPRESENTED

Number of Research Mentors, by College/School



UNDERGRADUATE RESEARCH IS...

...Funded!

\$500-\$6,000 
SCHOLARSHIP
RANGE

\$12,905 
AWARDED IN
TRAVEL FELLOWSHIPS

 **\$760,000**
AWARDED IN
STUDENT SCHOLARSHIPS
LAST YEAR

...For Everyone!

 **20+**
UH COLLEGES, SCHOOLS,
AND CENTERS REPRESENTED

 **30%**
OF OURMA PARTICIPANTS
ARE PELL GRANT-ELIGIBLE

 **1 in 5**
STUDENT RESEARCHERS
IDENTIFY AS FIRST GENERATION

...A Gateway to Fellowships!

68 
FULBRIGHT RECIPIENTS
SINCE 2018

 **40**
DISTINCT FELLOWSHIPS
UH STUDENTS HAVE EARNED

...Supportive of the University!

UNDERGRADUATE RESEARCH SUPPORTS
UH'S CARNEGIE-DESIGNATION AS A

TIER ONE 
UNIVERSITY

STUDENTS CONTRIBUTE TO

 **CUTTING-EDGE
RESEARCH**

HAPPENING RIGHT HERE AT UH!

OFFICE OF UNDERGRADUATE RESEARCH AND MAJOR AWARDS



OURMA PROGRAMS

THE HOUSTON EARLY RESEARCH EXPERIENCE (HERE) is a two-week research program in May for rising sophomore and junior undergraduates to learn the fundamentals of conducting research. \$1,000 scholarship. uh.edu/here

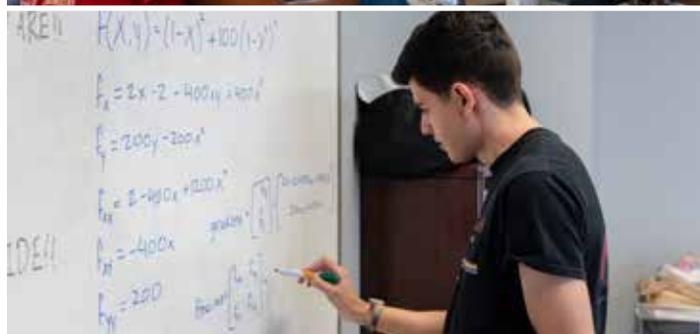
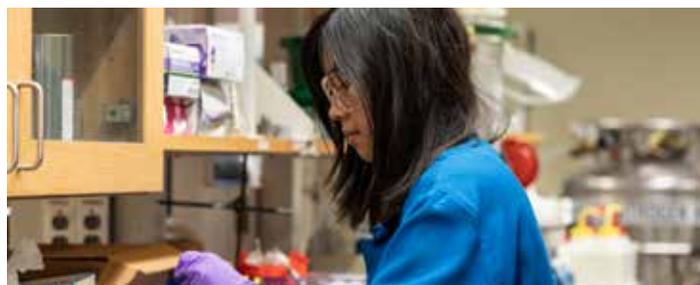
THE RESEARCH FOR ASPIRING COOGS IN THE HUMANITIES (REACH) PROGRAM is a collaborative effort supported by the Cougar Initiative to Engage and OURMA, providing students in humanities disciplines a year-long introductory research experience by connecting them to existing projects at the University of Houston. \$1,500 scholarship. uh.edu/reach

THE SUMMER UNDERGRADUATE RESEARCH FELLOWSHIP (SURF) is a full-time, 10-week summer research program for students to conduct research with a UH faculty mentor. \$4,000 scholarship. uh.edu/surf

THE ENERGY SCHOLARS PROGRAM allows undergraduate students to work on a year-long research project related to energy under the direction of a UH faculty mentor. Students from all disciplines are encouraged to apply. \$6,000 scholarship. uh.edu/energy-scholars

THE PROVOST'S UNDERGRADUATE RESEARCH SCHOLARSHIP (PURS) is a part-time, semester-long research program for students to conduct research with a UH faculty mentor. \$1,000 scholarship. uh.edu/purs

THE MELLON RESEARCH SCHOLARS PROGRAM is a year-long program that supports a cohort of students who aim to conduct research and attend graduate school in the humanities. Participants engage in developmental activities and conduct a summer research project. \$5,000 scholarship. uh.edu/mellonscholars



THE SENIOR HONORS THESIS is a capstone program for an undergraduate's career in research. Open to all UH students, participants enroll in six hours of coursework, typically applied toward their degree requirements, during their senior year. uh.edu/seniorhonorsthesis.

Want to learn more? Email:
undergrad-research@uh.edu



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.

PRIVILEGES AND BENEFITS

- Small classes for all majors
- Accessible, award-winning faculty and staff
- Priority course registration
- Reserved facilities
- Student community, social events, and mentorship
- Unique minors/programs
- Study abroad and research opportunities
- Graduation with distinction



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 six 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.

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



FELLOWSHIPS AND MAJOR AWARDS





МАЛЫСНЯКІ
УКРАЇНА

MARTA Y LAURA II
Tarta de la abuela
Origen: España

Olena Koltsova
Galletas de especias

Kayla Alexander
galletas con chispas de chocolate
origen: E.E.U.U.

CURSO DE
TRES

2024 UNDERGRADUATE SCHOLARS AND MAJOR AWARDS

The Office of Undergraduate Research and Major Awards congratulates the 2023-2024 Undergraduate Scholars and Major Award recipients, finalists, and alternates.

GERALD D. HINES COLLEGE OF ARCHITECTURE AND DESIGN

Tessnim Mohammed, Mickey Leland Energy Fellowship (Recipient)

C.T. BAUER COLLEGE OF BUSINESS

Jayden Gunsolley, Sumners Scholars (Recipient)

Emily Poff, Critical Language Scholarship Spark, Mandarin (Recipient)

COLLEGE OF EDUCATION

Fatou Jallow, Donald M. Payne International Development Fellowship (Recipient)

Tammy Tran, Fulbright English Teaching Assistantship Grant, Vietnam (Recipient)

CULLEN COLLEGE OF ENGINEERING

Oluwadurotimi Agbesanwa, BCM SMART Program (Recipient)

Farzana Likhi, Department of Energy Graduate Student Research Program (Recipient)

Leonard Jiang, Department of Energy Graduate Student Research Program (Recipient)

Kati Stubits-Gallagher, DAAD RISE Program (Recipient)

Toni Claire Tacorda, BCM SMART Program (Recipient)

COLLEGE OF LIBERAL ARTS & SOCIAL SCIENCES

Nine Abad, Point Scholarship Opportunity Grant (Recipient)

Melanie Adhikary, Fulbright English Teaching Assistantship Grant, Taiwan (Recipient)

Adeena Ali, Fulbright English Teaching Assistantship Grant, Indonesia (Recipient)

Gerardo Angulo, Sumners Scholars (Recipient)

Saege Anzueto, Boren Awards, Korea (Alternate)

Zaina Boriek, MD Anderson PCCSM Post-Baccalaureate Program (Recipient)

Cameron Cochran, Fulbright English Teaching Assistantship Grant, Poland (Recipient)

Mallory Cotton, NSF GRFP (Recipient)

Isaac DeBerry, Fulbright English Teaching Assistantship Grant, Belgium (Recipient)

Meagan Donald, JET Program (Recipient)

Helin Erdal, Critical Language Scholarship, Azerbaijani (Recipient)

Veronica Garcia, Fulbright English Teaching Assistantship Grant, Germany (Recipient)

Lucas Giannetti, Fulbright English Teaching Assistantship Grant, Kosovo (Recipient)

Estella Gomez, Sumners Scholars (Recipient)

Alyssa Green, Phi Kappa Phi Fellowship (Recipient)

Zunayra Hemani – Fulbright English Teaching Assistantship Grant, Bulgaria (Recipient)

Kayla Huhn, Fulbright English Teaching Assistantship Grant, Spain (Recipient)

Joyce Lai, Critical Language Scholarship Spark, Mandarin (Alternate)

Naveera Majid, Fulbright Manchester Metropolitan University Award in Poetry, United Kingdom (Alternate)

Jessica Mansaram, Fulbright English Teaching Assistantship Grant, Thailand (Alternate)

Dhwani Mulani, BCM SMART Program (Recipient)

Daniel O'Connell, NSF GRFP (Honorable Mention)

Sofia Poznansky, Fulbright English Teaching Assistantship Grant, Kosovo (Recipient)

Justin Schnitzer, Sumners Scholars (Recipient)

Thalia Sevajanes, Fulbright English Teaching Assistantship Grant, Taiwan (Recipient)

Thalia Sevajanes, Critical Language Scholarship, Mandarin (Recipient)

Bismah Shaikh, Critical Language Scholarship Spark, Arabic (Alternate)

Mallory Walters, Fulbright English Teaching Assistantship Grant, Spain (Recipient)

Eshal Warsi, Islamic Scholarship Fund (Recipient)

Mielad Ziaee, Harry S. Truman Scholarship (Recipient)

Mielad Ziaee, PBK Key Into Public Service Scholarship (Recipient)

HOBBY SCHOOL OF PUBLIC AFFAIRS

Gabriela Hamdieh, PPIA Junior Summer Institute (Recipient)

COLLEGE OF NATURAL SCIENCES & MATHEMATICS

Yahya Arain, BCM SMART Program (Recipient)

Lucille Baker-Stahl, NSF GRFP (Honorable Mention)

Caleb Broodo, Department of Energy Graduate Student Research Program (Recipient)

Hy Cao, MD Anderson PCCSM Program (Recipient)

Reece Collins, MD Anderson PCCSM Program (Recipient)

Baycha Isik, Critical Language Scholarship, Turkish (Recipient)

Gabrielle Kostecki, Fulbright Study/Research Grant, Malawi (Alternate)

Gabrielle Kostecki, NSF GRFP (Honorable Mention)

Chirom Meiraba, DAAD RISE PRO Program (Recipient)

Javier Padron, Fulbright Study/Research Grant, Brazil (Recipient)

Senghong Sing, BCM SMART Program (Recipient)

Melody Tran, MD Anderson PCCSM Program (Recipient)

Leonard Wang, Fulbright/University of Strathclyde Award, UK (Recipient)

Jenna Zamil, MD Anderson PCCSM Program (Recipient)

OUTSTANDING FELLOWSHIP MENTOR AWARD

The Office of Undergraduate Research and Major Awards hosted the Undergraduate Scholars and Major Awards Celebration on April 24, 2024. The University of Houston Outstanding Fellowship Mentor Award was featured in the celebration and awarded to **Max Rayneard, Ph.D.**, associate director of the Creative Work minor in the Honors College, and founding director of the FrameWorks Program.



MAX RAYNEARD

Dr. Max Rayneard was recognized for his support and contributions to UH students conducting undergraduate research and applying to major awards. His dedication to helping students stems from his own experience as a Fulbright Scholarship recipient, which brought him from South Africa to the United States for the first time: “I know the life-changing opportunity such awards represent and how intimidating it can be to apply,” said Dr. Rayneard. “As a first-generation student, I would not have considered applying or known how to begin without the generous encouragement and guidance of my professors.”

From his experience mentoring students, Dr. Rayneard believes the benefits of applying go beyond potential grants or scholarships. He views the application process as an opportunity for students to self-reflect, to shape how they present themselves to the world, to integrate their personal narratives with their research interests, and to tailor their ideas to non-expert audiences. “My favorite advising moments are when the pieces click into place, when applicants find the right anecdote and perfect language so that their future aspirations become seamless and necessary expressions of their personal histories,” said Dr. Rayneard.

Along with advising students on award opportunities, Dr. Rayneard directs FrameWorks, a co-curricular research program directed at sophomores and juniors looking to participate in intensive humanities research usually reserved for seniors and graduate students. The first five years of the program saw nearly 100 students partnered with faculty mentors from the Honors College and the College of Liberal Arts and Social Sciences. FrameWorks has helped serve as a launch pad to other research opportunities like HERE, SURF, and the Mellon Program, along with elite graduate schools and competitive scholarships.

“Dr. Rayneard is all in on student success,” said Dr. Ben Rayder. “During peak Fulbright season, Max assists with interviews, writes recommendations, meets with applicants about their writing, and performs invaluable line editing. He is the consummate professional whose work has been transformational for UH students. We could not have achieved so much without him.”

Congratulations to Dr. Rayneard on his award!



NATIONALLY COMPETITIVE SCHOLARSHIPS AND MAJOR AWARDS

Consider applying for one of these opportunities.

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 Dr. Ben Rayder (btrayder@uh.edu).

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 up to \$7,500 annually.

Campus Deadline: Dec 1, 2025

HARRY S. TRUMAN SCHOLARSHIP

For college juniors 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: Dec 1, 2025

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: Dec 1, 2025

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 the 13 critical languages abroad, including Arabic, Chinese, Korean, and Russian.

National Deadline: Mid-Nov 2025

NSF GRADUATE RESEARCH FELLOWSHIP

For graduating seniors pursuing a research-based master's or doctoral degree in the natural sciences, engineering, mathematics, or STEM education. The award includes a \$37,000 living stipend and \$16,000 cost-of-education allowance.

National Deadline: Mid-Oct 2025

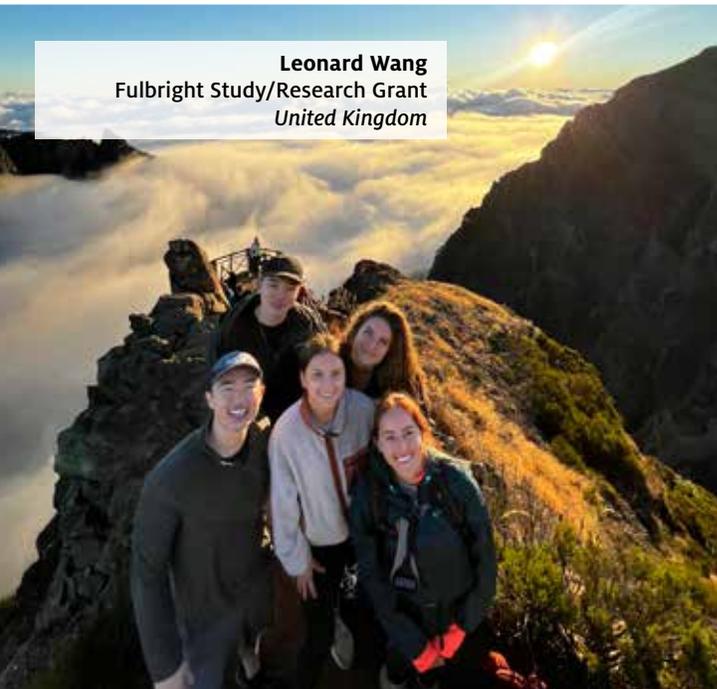
FULBRIGHT U.S. STUDENT PROGRAM

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: Aug 29, 2025



Morgan Thomas
Fulbright English Teaching Assistant
Ghana



Leonard Wang
Fulbright Study/Research Grant
United Kingdom



Kayla Huhn
Fulbright English Teaching Assistant
Spain

FULBRIGHT U.S. STUDENT PROGRAMS

The University of Houston is a top-producing Fulbright institution

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 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.

2025 CAMPUS DEADLINE:
August 29, 2025

FOR MORE INFORMATION, CONTACT:
Dr. Ben Rayder
Assistant Dean for Undergraduate Research,
Major Awards, and Learning Abroad/Away
www.us.fulbrightonline.org btrayder@uh.edu







UNDERGRADUATE RESEARCH PROGRAMS



HOUSTON EARLY RESEARCH EXPERIENCE

The **Houston Early Research Experience (HERE)** is a two-week seminar series introducing rising sophomores and juniors to the fundamentals of conducting research. Under the guidance of UH faculty mentors, students explore various research methodologies and learn how to craft a research proposal. HERE participants receive a \$1,000 scholarship.

HERE 2024 Theme: Space City Houston

HERE 2024 Participants

- | | | |
|-------------------------|----------------------|------------------|
| Abigail Archila | Alex Heiliger | Wendy Novoa |
| Cooper Armstrong | Derek Herrera | Adithi Nythruva |
| Sarah Baig | Khaled Hlayel | Emma Pitrof |
| Ayesha Baloch | Hai-Chau Hoang | Rohaba Sajjad |
| Jagjit Singh Bhondi | Peyton Hodakievic | Alex Samano |
| Miguel Blanco | Eniya Kaleemullah | Chloe Saunders |
| Matthew Bohn | Betul Kaya | Justin Schnitzer |
| Diego Carrillo | Sydney Aleanna Magat | Maria Siddeeqe |
| Caleb Chiao | Alexander Mai | Diego Sierra |
| Alexandra Deras Diaz | Collin Mansur | Romina Suarez |
| Angela Doncsev | Alondra Martinez | Cynthia Tran |
| Kareem El-Giar | Ibraheim Maudood | Morgan Turner |
| Salma Gaballa | Isaac Mesina | Divya Valipe |
| Manali Catherine Ghurye | Rusheel Mittakanti | Elaine Vo |
| Sorraya Gonzales | Macy Mosier | Geetika Yadav |
| Benjamin Gwynn | Khanh Nguyen | |
| | Emily Nguyen | |

HERE 2024 Mentors

- | | | |
|--------------|---------------|----------------|
| Gulin Aksu | Kelly Hopkins | Marina Trninic |
| Dan Burleson | Nick Jacobsen | Lesli Vollrath |
| Marc Hanke | Rita Sharp | |





HOUSTON SCHOLARS

The **Houston Scholars** is a competitive program for high-achieving freshmen and sophomores to receive mentorship and scholarship funding to pursue research, internships, and other distinctive experiential learning opportunities.

Houston Scholars hear from speakers about topics to help them utilize opportunities at UH and develop their unique skill sets. By the end of the year, cohort members better understand opportunities at UH, learn how to be responsible students, and develop an intentional plan for their futures.

Houston Scholars Participants

Varun Balaji

Zara Baloch

Miguel Blanco

Ariana Castaneda

Noel Chacko

Grace Chu

Reece Collins

Jacob Forray

Samma Gaballa

Kaden Helmka

Funmilola Jesse

Angela Nguyen

Duong Nguyen

Adithi Nythruva

Milan Sam

Justin Schnitzer

Nathan Stiehl

Melody Tran

Morgan Turner

Divya Valipe





RESEARCH FOR ASPIRING COOGS IN THE HUMANITIES

The **Research for Aspiring Coogs in the Humanities (REACH)** program 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.

2024-2025 REACH Partners and Participants

Recovering the US Hispanic Literary Heritage Program

Mentors

Lorena Gauthereau
Mikaela Selley
Gabriela Baeza Ventura
Carolina Villarroel

Student Participants

Ana Frausto Leija
Katerina Munoz
Kassandra Zapata

The Gulf Coast Sound: Music in East Texas Coastal Region

Mentors

Mary Manning

Student Participants

Amara Holeman

Storymapping Houston Old Chinatown

Mentors

Melody Yunzi Li
Guadalupe San Miguel

Student Participants

Charis Wu
Arshiya Yasin

Sharing Stories from 1977

Mentors

Sandra Davidson
Nancy Young
Leandra Zarnow

Student Participants

Srivarshini Achanta
Klarissa Castillo
Brian Holcomb
Iris Lucio
Sophie Nguyen
Jacquelyn Nguyen

The Year 1771

Mentors

David Mazella

Student Participants

Kadilo Buzugbe
Tarashree Dorairaj

Triumph and Tragedy in the Bayou City's Civil Rights Era

Mentors

Irene Guenther

Student Participants

Mia Harris
Adithi Nythruva

La Louisiane en Tejas: Gulf Coast Foodways in Southeast Texas

Mentors

Todd Romero

Student Participants

Tasneem Monib

“REACH has given me a unique opportunity to engage in research in ways I never imagined were possible in the humanities.”

Mia Harris



HONORS FACULTY RESEARCH ASSISTANTSHIP

The **Honors Faculty Research Assistantship** is designed to support Honors College faculty who are pursuing research. Since Honors College faculty are primarily teaching faculty, the research assistantship program provides important support for those who additionally seek to continue researching in their discipline. Students who participate in the Honors Faculty Research Assistantship program gain experience in research while supporting Honors College faculty members in their respective research work and are paid a monthly stipend. The research assistants are supported through the Lerner Family Fund.

2024-2025 Honors Faculty Research Assistants

Tracy Adu

Mentored by Arlene Macdonald
Honors, Medicine and Society

Kailey DeLorenzo

Mentored by Douglas Erwing
Honors, History

Kailey Jirsa

Mentored by Benjamin Rayder
Honors, Undergraduate Research and Major Awards

Rabeeya Khan

Mentored by John Lunstroth
Honors, Medicine and Society

Lauren Nossier

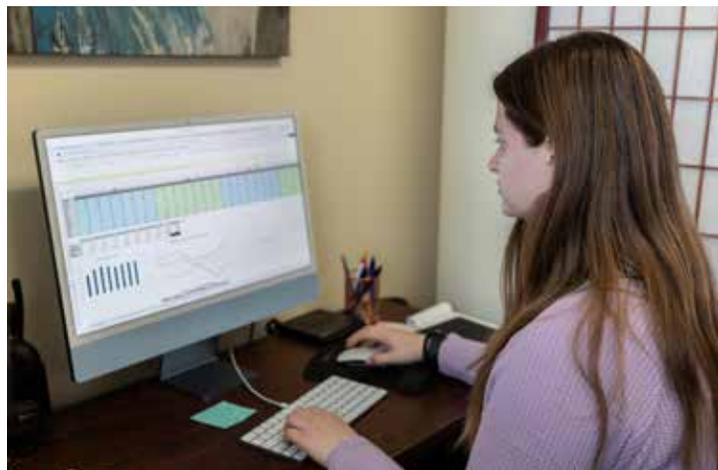
Mentored by Marc Hanke
Honors, Biology

Saron Regassa

Mentored by Richard Garner
Honors, English

Bridget Thompson

Mentored by Michelle Belco
Honors, Political Science



“As an Honors Faculty Research Assistant, I enhanced my skills in data analysis, communication, and critical thinking, providing a strong foundation for my future professional career. My appreciation has deepened for how interdisciplinary collaboration is key to advancement.”

Kailey Jirsa

Durga D. and Sushila Agrawal Engineering Research Building
University of Houston Cullen College of Engineering



THE GEORGE “TREY” PHARIS FELLOWSHIP

The George “Trey” Pharis Fellowship engages undergraduate students in a 10-week summer research experience focused on developing data projects to understand how individual health outcomes are embedded in social and environmental contexts. With support from the Hewlett Packard Enterprise Data Science Institute (HPE DSI), Pharis Fellows work full-time on self-directed projects guided by mentors in the Honors College, HPE DSI, and our partner organizations, including the Environmental Protection Agency, Humana Insurance, the UH Education Research Center, and the Community Health Worker Initiative. The fellowship is named in memory of George “Trey” Pharis III, a beloved Honors College colleague at Data Analytics in Student Hands (DASH).

2024 Pharis Fellows

Nikhila Achanta

Honors Biomedical Sciences
Examining Fenceline Communities and the Impact on Chronic Respiratory Disease Occurrence in Harris County

Aihanuwa Ale-Opinion

Biology
Vouchers and Vulnerabilities: How School Choice Affects Special Education in Texas

Hebah Amjad

Management Information Systems
Heat, Housing, and Health: Examining Heat Vulnerability in Houston's Communities

Joey Hernandez

Health
Beyond the Lockdown: COVID-19's Transformation of Houston's Community Hubs

Rex Kidd

Sociology
From Vacant to Vibrant: Suitability Testing and Estimating Impacts of Vacant Plots for Potential Urban Agriculture in Harris County

Rosemarie Faustina Le

Honors Biomedical Sciences
Beyond Just Books: Public Libraries as Lifelines in Texas' Rural, Suburban, and Urban Communities

Netra Nagoor

Management Information Systems
Gasping for Funds: Understanding the Financial Burden of Chronic Respiratory Conditions in Houston

David Odejimi

Computer Science
The Impact of High Imprisonment Numbers and Tough Sentences for Non-Violent Crimes on Racial Bias within the Criminal Justice System of Harris County

Rida Shaikh

Political Science
Power, Pollution, and Politics: Insights into the Electoral Behavior of Harris County Fenceline Communities

Yasmin Soltani

Biomedical Engineering
Language Acquisition and Academic Success for Refugee Students in Texas Public Education

Morgan Turner

Pre-Business
Towards Environmental Equity: Investigating Socioeconomic Disparities in Access to Recycling Services

Elaine Vo

Biology
Investigating the Relationship Between Texas School District Healthcare Expenditures and Academic Outcomes



PARTNERSHIP FOR CAREERS IN CANCER SCIENCE AND MEDICINE

The **Partnership for Careers in Cancer Science and Medicine (PCCSM)** program, hosted by the University of Texas MD Anderson Cancer Center, teaches and encourages passionate medical leaders through hands-on research training, weekly seminars, and workshops for 10 weeks in the summer. Nominated for exemplifying compassion and an aptitude for research in the medical field, selected students collaborate and work alongside worldwide cancer experts. MD Anderson is one of the world's premier cancer centers focused on cancer patient care, research, education, and prevention.

2024 PCCSM Researchers

MD Anderson PCCSM Program



Hy Cao



Reece Collins

MD Anderson PCCSM Post-Baccalaureate Program



Zaina Boriek



Melody Tran



Jenna Zamil

“PCCSM has introduced me to biochemical research and helped solidify my desire to pursue a career in medicine. I met a variety of people from across the country and truly learned what it meant to collaborate within a lab setting.”

Melody Tran



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*. Keep a look out for copies of our 2023/2024 issue, which explores “Generation” or read it on our webpage. In 2024-2025 the FrameWorks program challenged students to interpret the theme “Our Houston.” Find out more about FrameWorks: thehonorscollege.com/frameworks.



Noah Cook

Liberal Studies
Viewers' Experiences in the Rothko Chapel



Anisah Khan

English
Healing in the Wake of the 1947 Great Indian Divide



Collin Mansur

Political Science
George Strait's, Houston, and the "Country-City Divide"



Audrey Marston

Political Science and Strategic Communication
Educational Inequities and the TEA Takeover of the HISD



Kelly Nguyen

Political Science
The Myth of Talos/Houston-based Cancer Research



Sophie Nguyen

English
Pan-Asian Consciousness and the Asian American Daughter



Adithi Nythruva

Psychology
Refuge in The Ramayana and Houston Immigrant Experience



Romina Suarez

Psychology
Community Impact of Houston's Mexican and Hispanic Murals



Emme Tomasello

Anthropology
Institutional Responses to the Desecration of Newman's Broken Obelisk and Sikander's The Witness



Lindsey Vessels

English
Jan De Hartog and the Transformation of the Jefferson Davis Charity Hospital

NOT PICTURED

Baila Walker

English
Bookstores, Cafes, and Queer Communities in Montrose



PROVOST'S UNDERGRADUATE RESEARCH SCHOLARSHIP

The **Provost's Undergraduate Research Scholarship (PURS)** program provides talented 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.

Fall 2024 PURS Recipients

Tessnim Mohammed

Mentored by Ross Wienert
Architecture

David Torres Jr

Mentored by Joseph Thompson
Management and Leadership

Zoey Ballard

Mentored by Aaron Becker
Electrical and Computer Engineering

Isaiah Camarillo

Mentored by Dimitrios Kalliontzis
Civil and Environmental Engineering

Duong Nguyen

Mentored by Nicolas Jacobsen
Honors, Energy and Sustainability

Joshua Oladejo

Mentored by Hasan Zerze
Chemical and Biomolecular Engineering

Pascual Ortiz

Mentored by Megan Robertson
Chemical and Biomolecular
Engineering

Rajvi Patel

Mentored by Vedhus Hoskere
Civil and Environmental Engineering

Josiah Rooker

Mentored by Siavash Zamiran
Civil and Environmental Engineering

Rohaba Sajjad

Mentored by Momen Mostafa
Civil and Environmental Engineering

Pranav Hariharan

Mentored by Richard Meisel
Biology and Biochemistry

Oluwatofunmi Jewesimi

Mentored by Arlene Macdonald
Honors, Medicine and Society

Maryem Adwer

Mentored by Yuheng Lin
Engineering Technology

Nicolas Patino

Mentored by Ningqiao Li
Global Hospitality Leadership

Shiza Aslam

Mentored by Sreya Chatterjee
English

Ryan Banda

Mentored by Francesca Behr
Modern and Classical Languages

Samma Elhammady

Mentored by Bradley Smith
Psychological, Health, and Learning
Sciences

Ali Khan

Mentored by Sujata Sirsat
Global Hospitality Leadership



Fall 2024 PURS Recipients (continued)

Krishna Lathish
Mentored by Haylee Harrell
English

Helene Morford
Mentored by Carla Sharp
Psychology

Holly Nguyen
Mentored by Omolola Adepoju
Humana Integrated Health System
Sciences Institute

Angela Nguyen
Mentored by Chandra Mohan
Biology and Biochemistry; Biomedical
Engineering

Nirali Patel
Mentored by Tracey Ledoux
Health and Human Performance

Syed Rizvi
Mentored by Hanako Yoshida
Psychology

Annfaye Sternberg
Mentored by Abigail Modaff
Honors, History

Andrea Tribble
Mentored by Ameenah Shakir
African American Studies

Mariam Aly
Mentored by Julie Dunsmore
Psychological, Health, and Learning
Sciences

Paul Daniel
Mentored by Wa Xian
Biology and Biochemistry

Saptarshi De
Mentored by Daniel Biediger
Computer Science

Yousef Elmakdah
Mentored by Mehmet Sen
Biology and Biochemistry

Judy Koussayer
Mentored by Molly Albecker
Biology and Biochemistry

Gabrielle Lansangan
Mentored by Melody Yunzi Li
Modern and Classical Languages

Dylan Magee
Mentored by Jokubus Ziburkus
Biology and Biochemistry

Ibraheim Maudood
Mentored by Chandra Mohan
Biomedical Engineering

Haneef Mohammed
Mentored by Jinsook Roh
Biomedical Engineering

Maryam Mukhtarov
Mentored by Richard Meisel
Biology and Biochemistry

Sayantana Pradhan
Mentored by Mehmet Sen
Biology and Biochemistry

Ritesh Ravi
Mentored by Andrew Kapral
Honors, Engaged Data Science

Christian Schmidt
Mentored by Liangzi Deng
Physics; Texas Center for
Superconductivity at UH

Sanidh Shah
Mentored by Kirill Larin
Biomedical Engineering

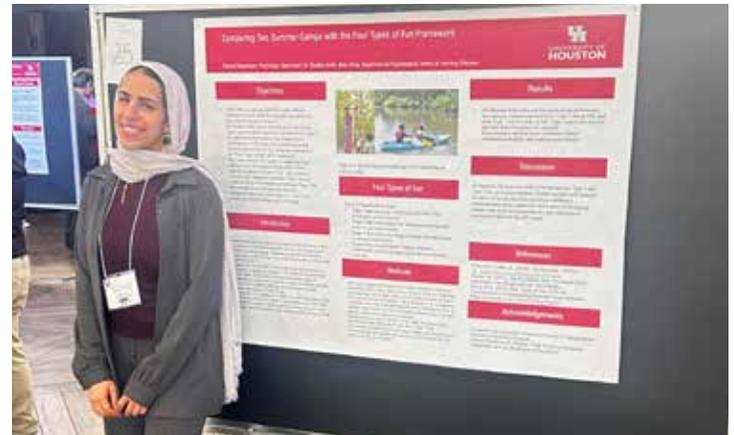
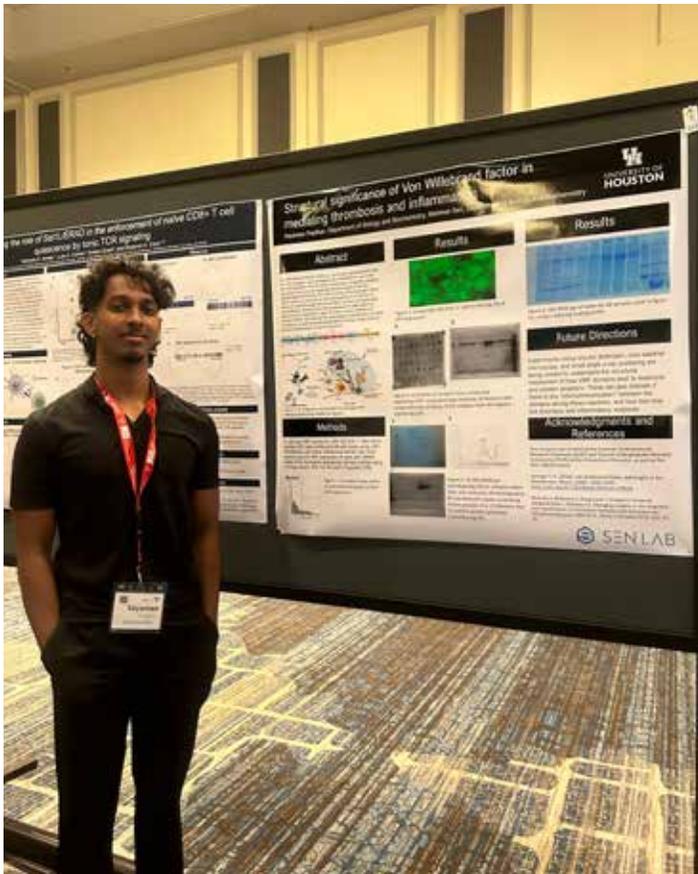
Angelique Tagaban Rangel
Mentored by Virginia Snodgrass
Educational Leadership and Policy
Studies

Cynthia Tran
Mentored by Tai-Yen Chen
Chemistry

Carter Ung
Mentored by Shishir Shah
Computer Science

Cole Woody
Mentored by Preethi Gunaratne
Biology and Biochemistry

Fartun Yussuf
Mentored by Chrysa Latrick
Biology and Biochemistry



“The PURS program has been an amazing opportunity for me to develop my research project and strengthen my identity as a researcher. I have developed confidence not only in my project but in my ability to contribute to academic thought within the African American Studies discipline and research world.”

Andrea Tribble

Spring 2025 PURS Recipients

Jazmin Abou-Mourad

Mentored by William Ott
Mathematics

Husni Abu-Awad

Mentored by Ann Cheek
Biology and Biochemistry

Asmaa Afridi

Mentored by Tianfu Wu
Biomedical Engineering

Zahra Ali

Mentored by Hanako Yoshida
Psychology

Ameen Ali

Mentored by Tianfu Wu
Biomedical Engineering

Salma Ansari

Mentored by Tianfu Wu
Biomedical Engineering

Dalia Awad

Mentored by Richard Meisel
Biology and Biochemistry

Zahra Bhattacharya

Mentored by Wenshuang Wang
Mathematics

Owen Christian Capule

Mentored by Richard Meisel
Biology and Biochemistry

Stanley Chan

Mentored by Emily LaVoy
Health and Human Performance

Camila Chavez Pinero

Mentored by Ricardo Azevedo
Biology and Biochemistry

Andrew Chen

Mentored by Jiming Bao
Electrical and Computer Engineering

Nour Chibani

Mentored by Emily LaVoy
Health and Human Performance

Anderson Chitsosa

Mentored by Tameka Clemons
Biomedical Sciences

Reece Collins

Mentored by Meghana Trivedi
Pharmacy Practice and Translational Research

Noah Cook

Mentored by Dustin Gish
Honors, Political Science

Laurel Cordova

Mentored by Jennifer Clark
Political Science

Juan Cruz

Mentored by Aibing Li
Earth and Atmospheric Sciences

Amman Dhanani

Mentored by Amanda Austin
Political Science

Shalaka Dhavalikar

Mentored by Pranav Parikh
Health and Human Performance

Khoa Doan

Mentored by Megan Robertson
Chemical and Biomolecular Engineering

Anton Erofeev

Mentored by Ilya Timofeyev
Mathematics

Madison Freeman

Mentored by Amber Thiessen
Communication Sciences and Disorders

Leah George

Mentored by Rodica Damian
Psychology

Keila Gonzalez

Mentored by Rosenda Murillo
Psychological, Health, and Learning Sciences

Valeria Gonzalez

Mentored by William Truitt
Architecture

Edgar Hernandez

Mentored by Lorra Garey
Psychology

Khaled Hlayel

Mentored by Bhavin Sheth
Electrical and Computer Engineering

Donna Iles

Mentored by Thomas Teets
Chemistry

Farbod Khalaj

Mentored by Radbod Darabi
Pharmacological and Pharmaceutical Sciences

Saeed Khan

Mentored by Frank McKean
Biology and Biochemistry

Fatima Khan

Mentored by Hanako Yoshida
Psychology

Emily Klang

Mentored by Brandee Carlson
Earth and Atmospheric Sciences

Cameron Klassen

Mentored by Mili Kyropoulou
Architecture

Rebekah Loriga-Oliveira

Mentored by Cory Meals
Music

Alexander Mai

Mentored by Taryn Eubank
Pharmacy Practice and Translational Research

Swarnil Mandal

Mentored by Meghana Trivedi
Pharmacological and Pharmaceutical Sciences

Collin Mansur

Mentored by Michelle Belco
Honors, Political Science

Bereket Mego

Mentored by Jerrod Henderson
Chemical and Biomolecular Engineering

Isaac Mesina

Mentored by Marc Hanke
Honors, Biology

Zunaira Mirza

Mentored by Thomas Teets
Chemistry

Rusheel Mittakanti

Mentored by Greg Morrison
Physics

Avery Narhi

Mentored by Brandee Carlson
Earth and Atmospheric Sciences

Dylan Nguyen

Mentored by Marwa Ghazali
Comparative Cultural Studies

Ryan Nguyen

Mentored by Tarsis Ferreira
Vision Sciences

Amarachukwu Okeke

Mentored by Erin Kelleher
Biology and Biochemistry

Raayed Rahman

Mentored by Chandra Mohan
Biomedical Engineering

Jacqueline Rudisill

Mentored by Julia Babcock
Psychology

Faiza Sachwani

Mentored by Michael J. Zvolensky
Psychology

Ayaan Saleem

Mentored by Craig Johnston
Health and Human Performance

Amna Siddiqui

Mentored by Sreya Chatterjee
English

Hasan Siddiqui

Mentored by Mehmet Sen
Biology and Biochemistry

Munema Termezy

Mentored by Emese Felvegi
Decision and Information Sciences

Brandon Than

Mentored by Preethi Gunaratne
Biology and Biochemistry

Nathan Touchet

Mentored by David Mayerich
Electrical and Computer Engineering

Trang Tran

Mentored by Tai-Yen Chen
Chemistry

Daniel Viray

Mentored by William Ott
Mathematics

Yousef Zamil

Mentored by Eugénie Bassères
Pharmacy Practice and Translational Research

MELLON SCHOLARS



The Mellon Research Scholars Program, funded by a grant from the Mellon Foundation, supports a cohort of students highly motivated to conduct research and attend graduate school in the humanities. Mellon Research Scholars participate in an intensive two-week graduate school preparation program in May and a full-time, faculty-mentored summer research experience. Each participant receives a total of \$5,000 for conducting their summer research project and participating in developmental academic and mentorship activities.



Alora Baehr
Mentored by Rikki Bettinger
Honors, Undergraduate
Research and Major Awards



Victoria Blake
Mentored by Ann Christensen
English



Alissa Boxleitner
Mentored by Zelma Oyarvide
Tuthill
Sociology



Nicholai Caterina
Mentored by Michael
Snediker
English



Joaquin Davila
Mentored by José Angel
Hernández
History



Tuyen Le
Mentored by Sarasij
Majumder
Modern and Classical
Languages



Isha Merchant
Mentored by Mohan
Ambikaipaker
Modern and Classical
Languages



Kelsey Middleton
Mentored by Haylee Harrell
English



Katerina Munoz
Mentored by Jennifer Adams
Sociology



Fejiro Oweh
Mentored by Marwa Ghazali
and Gheni Platenburg
Comparative Cultural Studies;
Communication



Saron Regassa
Mentored by Haylee Harrell
English



Dylan Rogers
Mentored by Amanda Baumle
Sociology



Adolfo Salazar
Mentored by Lesli Vollrath
Honors, English



Brittany Sandoval
Mentored by Haylee Harrell
English



Eric Shin
Mentored by Caryn Tamber-Rosenau
Modern and Classical Languages



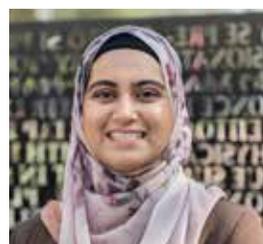
Amna Siddiqui
Mentored by Bhavya Tiwari
Modern and Classical Languages



CJ Thomas
Mentored by Tshepo Masango Chéry
History



Andrea Tribble
Mentored by Ameenah Shakir
African American Studies



Eshal Warsi
Mentored by Erin Routon
Comparative Cultural Studies

NOT PICTURED

Ria Bhatia
Mentored by Michael Snediker
English



ENERGY SCHOLARS



Cyrus Abbasi
Mentored by Mahdi Safa
Civil and Environmental
Engineering



Sama Abdelaziz
Mentored by Xin Fu
Electrical and Computer
Engineering



Kianna Agyekum
Mentored by Thomas Teets
Chemistry



Amaan Ahmed
Mentored by Raul Susmel
Finance



Tristan Alhadad
Mentored by Devin Shaffer
Civil and Environmental
Engineering



Hamza Fadel
Mentored by Lori Hathon
Petroleum Engineering



Olivia Farmer
Mentored by Nicolas Jacobsen
Honors, Energy and
Sustainability



Michael Gonzalez
Mentored by Bo Zhao
Mechanical and Aerospace
Engineering



Funmilola Jesse
*Mentored by Alexandra
Landon*
Honors, Engineering



Cameron Klassen
Mentored by Mili Kyropoulou
Architecture



Energy Scholars complete a year-long, energy-related research project under the direction of a UH faculty mentor and receive a \$6,000 scholarship. Faculty mentors also receive a \$1,000 stipend for their participation, and the program is open to students of all academic disciplines. We are grateful to the following sponsors whose support make Energy Scholars possible: The Baker Hughes Foundation, bp, Phillips 66, Shell, Vistra Energy, and the UH Energy Transition Institute.



Maryam Naeem
Mentored by Wang Wenshuang
Mathematics



Alexa Olivi
Mentored by Bernhard Rappenglueck
Earth and Atmospheric Sciences



Patrick Redmond
Mentored by Siavash Zamiran
Civil and Environmental Engineering



David Whaley
Mentored by Mahdi Safa
Civil and Environmental Engineering



Emily Yeh
Mentored by Yoon Koh
Global Hospitality Leadership

NOT PICTURED

David Ferrer
Mentored by Dimitrios Kalliontzis
Civil and Environmental Engineering

“Being in the Energy Scholars Program has been extremely rewarding in terms of academic, professional, and personal growth. I have learned so much about research and am excited to apply my newfound knowledge to my future research projects!”

David Whaley





SUMMER UNDERGRADUATE RESEARCH FELLOWSHIP

The 2024 **Summer Undergraduate Research Fellowship (SURF)** launched in June with 86 SURF recipients, each receiving a \$4,000 scholarship and committing to a full-time, 10-week research experience. Each week, the students came together for a virtual lecture series to develop their foundation as researchers. OURMA thanks our 2024 presenters for their participation in this year's lecture series.



Nine Abad

Mentored by Abigail Modaff
Honors, History



Aleeza Adil

Mentored by Hanako Yoshida
Psychology



Emmanuella Aigboduwa

Mentored by Harish Krishnamoorthy
Electrical and Computer Engineering



Adebola Akinrinade

Mentored by Charles Layne
Health and Human Performance



Angelina Albelo

Mentored by Mehmet Sen
Biology and Biochemistry



Yasmine Almadi

Mentored by Min Kang
Industrial Design



Suleyman Ancin

Mentored by Kelly Huang
Mechanical and Aerospace Engineering



Salma Ansari

Mentored by Tianfu Wu
Biomedical Engineering



Ali Ardda

Mentored by Xiaonan Shan
Electrical and Computer Engineering



Falak Asad

Mentored by Tony Frankino
Biology and Biochemistry



Zane Augulis

Mentored by Piruz Saboury
Economics



Juhi Bhatt

Mentored by Hanako Yoshida
Psychology



Afzila Bhojani

Mentored by Marc Hanke
Honors, Biology



Kadilo Buzugbe

Mentored by Laura Bland
Honors, History



Catherine Cabrera

Mentored by Tony Liao
Information Science Technology



Jonathan Chan

Mentored by Kerri Crawford
Biology and Biochemistry



Seaver Chester

Mentored by P. Shiv Halasyamani
Chemistry



Anderson Chitsosa

Mentored by Tameka Clemons
Biomedical Sciences



Simrat Clair

Mentored by Christoph Eick
Computer Science



Bradley Cline

Mentored by Tian Chen
Mechanical and Aerospace Engineering



Paul Daniel

Mentored by Wa Xian
Biology and Biochemistry



Linh Dau

Mentored by Cumaraswamy Vipulanandan
Civil and Environmental Engineering



Xavier Daugherty

Mentored by Hayan Charara
Honors, English



Yasmeen Elfeki

Mentored by Seoung Hoon Park
Health and Human Performance



Rea Rose Estrada

Mentored by Tony Frankino
Biology and Biochemistry



Luiz Fernandez

Mentored by Tai-Yen Chen
Chemistry



Luke Filyk

Mentored by Abigail Modaff
Honors, History



Madison Freeman

Mentored by Amber Thiessen
Communication Sciences and Disorders



Nathan Fuentes

Mentored by Emily LaVoy
Health and Human Performance



Isabela Garcia

Mentored by Michael Murphy
Earth and Atmospheric Sciences



Julia Gorman

Mentored by Erin Kelleher
Biology and Biochemistry



Emily Graves

Mentored by Adam Stuckert
Biology and Biochemistry



Arnav Gupta

Mentored by Raul Susmel
Finance



Tico Hannan

Mentored by Gangbing Song
Mechanical and Aerospace Engineering



Brianna Haynes

Mentored by Haylee Harrell
English



Nathan Hernandez

Mentored by Yi-Chao Chen
Mechanical and Aerospace Engineering



Dyma Hikmat

Mentored by William Ott
Mathematics



Donna Iles

Mentored by Thomas Teets
Chemistry



Suhaib Irfan

Mentored by Christoph Eick
Computer Science



Lizbeth Jaimés

Mentored by Jaye Derrick
Psychology



George Johnson

Mentored by Pablo Troncoso
Economics



Fahim Kunhi Mohamed

Mentored by Michael Newman
Accountancy and Taxation



Gabrielle Lansangan

Mentored by Melody Yunzi Li
Modern and Classical Languages



Jacqueline Le

Mentored by Ling Zhu
Political Science



Huynh Tram Anh Le

Mentored by Jeffrey Rimer
Chemical and Biomolecular Engineering



Jacob Leipold

Mentored by Mehmet Sen
Biology and Biochemistry



Ricardo Leyba

Mentored by Lars Grabow
Chemical and Biomolecular Engineering



Natalie Linde

Mentored by Marzia Cescon
Mechanical and Aerospace Engineering



Orion Lucero

Mentored by Zhengwei Li
Biomedical Engineering



Collin Mansur

Mentored by Michelle Belco
Honors, Political Science



Maryam Mohy

Mentored by Sandra Zalman
Art History



Afra Nawar

Mentored by Jaspal Subhlok
Computer Science



Adam Nelson-Archer

Mentored by Christoph Eick
Computer Science



Katelyn Nguyen

Mentored by Monique Mills
Communication Sciences and Disorders



Emily Nguyen

Mentored by Heather Caslin
Health and Human Performance



Angela Nguyen

Mentored by Chandra Mohan
Biology and Biochemistry



Adithi Nythruva

Mentored by Abigail Modaff
History, Honors



Christopher Oosthuizen

Mentored by Vedhus Hoskere
Civil and Environmental Engineering



Sonya Ortiz

Mentored by Kelly Huang
Mechanical and Aerospace Engineering



Abigail Pomeroy

Mentored by Ashutosh Agrawal
Mechanical and Aerospace Engineering



Sayantan Pradhan
Mentored by Mehmet Sen
Biology and Biochemistry



Cameron Ptak
Mentored by Quentin Vicens
Biology and Biochemistry



Raayed Rahman
Mentored by Chandra Mohan
Biomedical Engineering



Toni Ramos
Mentored by Brandee Carlson
Earth and Atmospheric
Sciences



Celine Saidy
Mentored by Steven Pennings
Biology and Biochemistry



Rohaba Sajjad
Mentored by Momen Mustafa
Civil and Environmental
Engineering



Santiago Sanchez Cabarcas
Mentored by Carla Sharp
Psychology



Aashna Shah
Mentored by Carla Sharp
Psychology



Maria Siddeeqe
Mentored by Ben King
Health Systems and Population
Health Sciences



Diego Sierra
Mentored by Raul Susmel
Finance



Annfaye Sternberg
Mentored by Abigail Modaff
Honors, History



David Torres Jr
Mentored by Jaewook Kim
Global Hospitality Leadership



Cynthia Tran
Mentored by Tai-Yen Chen
Chemistry



Aanshi Trivedi
Mentored by Melissa Zastrow
Chemistry



Guillermo Vasquez
Mentored by Yi-Chao Chen
Mechanical and Aerospace
Engineering



Daniel Viray
Mentored by Vaughn
Climenhaga
Mathematics



Robin Westveer
Mentored by William Ott
Mathematics



Courtney White
Mentored by Amanda
Alexander
Mathematics



Andrew Wusterhausen
Mentored by Loi Do
Chemistry



Alexandros Xenophontos
Mentored by Tasneem Bawa-
Khalfé
Biology and Biochemistry



Noah Yi
Mentored by Sunny Yang
English



Yousef Zamil
Mentored by Eugénie Basseres
Pharmacy Practice and Translational Research

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Brandon Burlison
Mentored by Jeff Feng
Industrial Design

Ibraheim Maudood
Mentored by Chandra Mohan
Biomedical Engineering

Anjalee Nair
Mentored by Andreas Mang
Mathematics

Alexa Perez
Mentored by Daniel Engster
Public Affairs

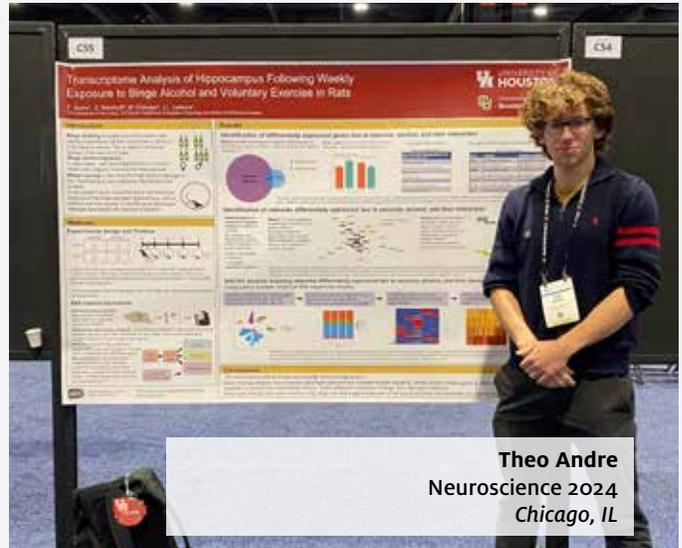


UNDERGRADUATE RESEARCH TRAVEL FELLOWSHIP

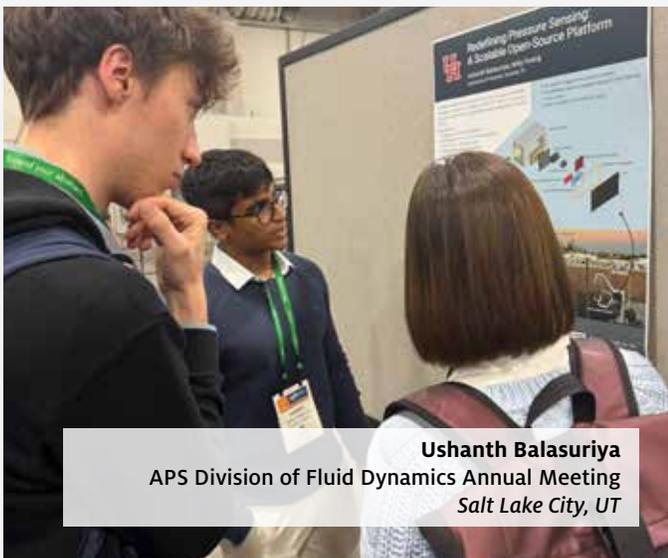
The Undergraduate Research Travel Fellowship promotes the professional development of undergraduate researchers from the University of Houston by supporting students' travel to showcase their work at an academic meeting. Applicants can receive up to \$750 to cover travel expenses associated with attending and presenting their research or creative work at a regional, national, or international conference.



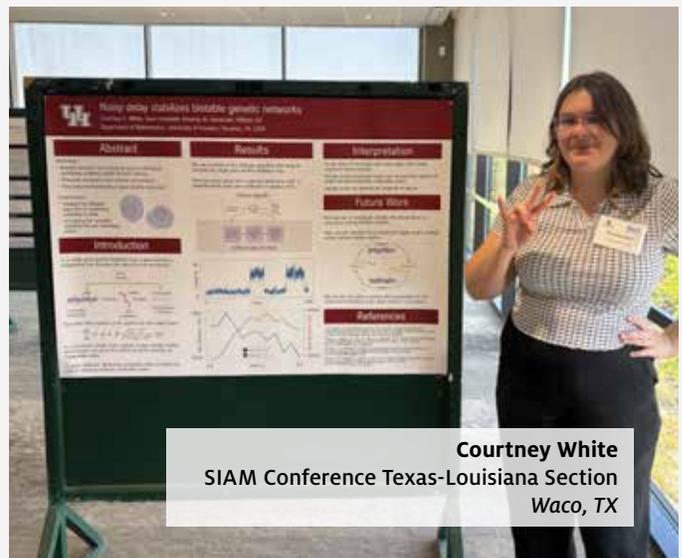
Katelyn Nguyen and Ashley Arrambide
American Speech and Hearing Association Convention
Seattle, WA



Theo Andre
Neuroscience 2024
Chicago, IL



Ushanth Balasuriya
APS Division of Fluid Dynamics Annual Meeting
Salt Lake City, UT



Courtney White
SIAM Conference Texas-Louisiana Section
Waco, TX

"I had the incredible opportunity to present my poster...From this experience, I learned the importance of bringing my full self to the field."

Julia Gorman, SACNAS National Diversity in STEM Conference, Phoenix, AZ



SENIOR HONORS THESIS

The undergraduate **Senior Honors Thesis** program at the University of Houston is a two-semester, six-credit-hour capstone research experience completed under the guidance of a faculty mentor. Students of all majors can participate and membership in the Honors College is not required.

The Office of Undergraduate Research and Major Awards in the Honors College collaborates with the college of the student's major to oversee the thesis process and approval. Students who successfully complete the Senior Honors Thesis program will graduate with an Honors in Major designation noted on the official transcript.

Congratulations to the following students for their outstanding work in the Senior Honors Thesis program.

Outstanding Senior Honors Thesis Award Recipients, 2023-2024

Raul Caballero Montes

Biology

"Stem Cells in Pancreatic Cancers: Diversity, Treatment, and Interactions with Microenvironment"

Directed by Frank McKeon

Melanie Adhikary

English

"Exercising Agency in the Domestic Sphere: Imagining Womanhood and Sacrifice"

Directed by Amanda Ellis

Sarah Belew

Psychology

"University Student Support, Engagement, and Well-being"

Directed by Olivia E. Atherton

Megan Dagnall

History

"University of Houston: The Expansion and Erasure of Diversity, Equity, and Inclusion, 1961-2024"

Directed by Debbie Harwell

Alivia Mayfield

History

"Alexander the Great: A Historiography of Power"

Directed by José Angel Hernández

Andrew Chase

Architecture

"Encased Utopias: A Case Study of Three Hungarian Panelház Estates"

Directed by Deepa Ramaswamy

James Valentine

Mechanical Engineering

"Bolt Looseness Monitoring Using Percussion and Clustering Machine Learning Methods"

Directed by Gangbing Song



UNDERGRADUATE RESEARCH MENTOR AWARDS

The Office of the Provost in conjunction with the Office of Undergraduate Research and Major Awards offers Undergraduate Research Mentor Awards to honor the dedicated practice of undergraduate mentorship at the University of Houston. These awards recognize excellence in supporting undergraduate research and convey the campus' high regard for outstanding contributions made to the academic and research community. Award winners advise and work one-on-one with students on personalized, creative, enriching projects; they are committed to providing undergraduate research experiences above and beyond the classroom.

The Office of Undergraduate Research and Major Awards congratulates the 2024 Undergraduate Research Mentor Award recipients: **Virmarie Correa-Fernández**, **Jerrod A. Henderson**, and **Melissa L. Zastrow**.



VIRMARIE CORREA-FERNÁNDEZ

Associate Professor and Associate Chair, Psychological, Health, and Learning Sciences (PHLS)

Virmarie Correa-Fernández is the director of the Latino and Behavioral Health Research Team (LABHRT), where she is committed to generating knowledge and practices to understand and reduce tobacco-related and behavioral health disparities, particularly among Latine/Hispanic ethnic groups. Since joining the University of Houston in 2015, she has formally mentored 22 undergraduate students, with two becoming co-authors in peer-reviewed publications. She is intentional about creating presentation opportunities for her students: 11 of her undergraduate mentees have participated in research posters and two have led oral presentations at the PHLS Symposium. Dr. Correa-Fernández aims to be the mentor she needed when she was a student, and achieves that goal through structure with flexibility, participatory learning, role modeling, and representation. "Via my teaching and mentoring experiences at UH, I have appreciated how much I enjoy contributing to students' learning and curiosity about research," writes Dr. Correa-Fernández.



JERROD A. HENDERSON

Assistant Professor, Chemical and Biomolecular Engineering

Jerrod A. Henderson leads the Henderson Research Group (HRG), which has received nine National Science Foundation awards and one NASA Grant for its mission towards understanding Engineering Identity Development using interpretative qualitative methods and participatory action research methods such as Photovoice and Photo Elicitation. Since joining the University of Houston in 2016, he has mentored 18 students in his lab, with nine presenting their research and four as co-authors in journal publications. Two of Dr. Henderson's undergraduate mentees have won poster presentation awards from the American Institute of Chemical Engineers (AIChE), with one also recognized as a Black Engineer of the Year for Undergraduate Research. The pillars of Dr. Henderson's mentoring philosophy include challenging students while learning from them, coaching, providing opportunities to lead, and providing regular feedback. "I also appreciate the well-documented literature suggesting that students who participate in undergraduate research excel in the classroom, are more likely to continue in STEM majors (especially for underrepresented students), and are more likely to persist in STEM careers," writes Dr. Henderson.



MELISSA L. ZASTROW

Associate Professor, Chemistry

Melissa L. Zastrow's research combines biochemical and analytical approaches with microbiology to uncover and examine the roles of essential metals in the gut microbiota. Her lab, the Zastrow Group, is supported by the University of Houston, National Institutes of Health, National Science Foundation, and the Welch Foundation. For her dedicated instruction, she received the NSM John C. Butler Excellence in Teaching Award in 2022. Since joining the University of Houston in 2017, she has mentored 14 undergraduates, eight of whom have been co-authors and seven who have presented posters at both Undergraduate Research Day and external opportunities. Dr. Zastrow's philosophy centers on building a strong mentor-mentee relationship with mutual respect and responsibility. "In general, I aim to be an open-minded mentor, be willing to learn from my mentees, and work towards creating a positive environment for all trainees to learn and develop as students and scientists," writes Dr. Zastrow.

UNDERGRADUATE RESEARCH AT UH LIBRARIES

UH Libraries supports student research by preserving and making accessible rare, archival collections, and by providing resources and expert guidance for scholarly projects.

Creative writing major Amara Holeman is working with university archivist Mary Manning on her project “Gulf Coast Sound,” an exploration of Houston music from the 1920s-60s. Holeman’s participation on the project is through the Research for Aspiring Coogs in the Humanities (REACH) program, which provides a year-long introductory research experience for students in humanities disciplines by connecting them to existing scholarly projects at UH. Holeman is engaging in primary and secondary source research related to regional musicians, bands, studios, and record labels, with the goal of creating content that will be added to a digital humanities project, facilitating access to the rich musical heritage of Houston.

UH Libraries offers a variety of research services open to all UH scholars, such as helping undergrads:

- Frame your research approach
- Develop a search strategy
- Discover library resources

Contact libteach@uh.edu to get started.

“Research, no matter what your degree or career plan may be, is a very important skill. You have the opportunity to learn more about a subject you weren’t familiar with before, it connects you to people with vastly different lives and paths than the one you’re on, and knowing how to properly develop research skills will follow you no matter where you go in life.”



AMARA HOLEMAN

Mentor: Mary Manning

The Gulf Coast Sound: Music in East Texas Coastal Region

Thank you to UH Libraries for supporting undergraduate research at the University of Houston.





2025 UNDERGRADUATE RESEARCH DAY PRESENTERS

2025 UNDERGRADUATE RESEARCH DAY

PRESENTERS

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

INDIVIDUAL PRESENTATIONS

Nine Abad

Mentored by Abigail Modaff
Honors, History

Apparitions of Fear and Power:
Reading Biopower and Monster
Theory to Figures of Filipino
Queerness, Femininity, and
Indigeneity

Cyrus Abbasi

Mentored by Mahdi Safa and Siavash
Zamiran
Civil and Environmental Engineering
Catalytic Conversion Scalability for
Industrial Carbon Management

Sama Abdelaziz

Mentored by Xin Fu
Electrical and Computer Engineering
Enhancing Underwater Image Quality
With Convolutional Neural Networks

Nikhila Achanta

Mentored by Andrew Kapral
Honors, Engaged Data Science
Respiratory Health at the Fenceline:
The Shadow of Industry and Primary
Care Access in Harris County

Srivarshini Achanta

Mentored by Sandra Davidson
History
The Lasting Impact of the 1977
National Women's Conference:
Policy Trajectories and Conservative
Responses in Houston

Aleeza Adil

Mentored by Hanako Yoshida
Psychology
The Role of Infant Age in Parental
Attention-Shifting Patterns

Kianna Agyekum

Mentored by Thomas S. Teets and Soumi
Chakraborty
Chemistry
Synthesis of 4-Coordinate Cu(I)-
Photosensitizer

Amaan Ahmed

Mentored by Raul Susmel
Finance
Investigating Informational Efficiency
in European Emissions Markets: A
Multifractal Approach

Emmanuella Aigboduwa

Mentored by Harish Sarma
Krishnamoorthy
Electrical and Computer Engineering
Battery System Optimization in
Energy Management

Sachitha Aithal

Mentored by Ming Hu
Pharmacological and Pharmaceutical
Sciences
Impact of Saliva Collection Method
on the Recovery of Drugs and
Metabolites From Saliva

Adebola Akinrinade

Mentored by Charles Layne
Health and Human Performance
Limb Coordination Patterns Are
Modified Depending Upon the
Perceived Consequences During a
Reach and Grasp Task

Farah Al Hadad

Mentored by Richard Willson and Carly S.
Filgueira
Chemical and Biomolecular Engineering;
Houston Methodist, Nanomedicine and
Cardiovascular Surgery
Antibody-Conjugated Gold Nanorods
As Photoacoustic Imaging Contrast
Agents to Target the Heart

Fabiha Alam

Mentored by Monique T. Mills and
Shaimaa Scrivner
Communication Sciences and Disorders
Language Processing in Children

Angelina Albelo

Mentored by Mehmet Şen
Biology and Biochemistry
Construct as a First Step to
Determining Ligand Preferences for
Next-Gen Drug Design

Aihanuwa Ale

Mentored by Andrew Kapral
Honors, Engaged Data Science
Vouchers and Vulnerabilities: How
School Voucher Legislation Affects
Special Education in Texas

Tristan Alhadad

Mentored by Devin Shaffer
Civil and Environmental Engineering
Synthesizing and Characterizing
Lithium-Selective Covalent Organic
Framework (COF) Membranes

Ameen Ali

Mentored by Tianfu Wu
Biomedical Engineering
Multiplex Lateral Flow Assay
for Simultaneous Detection of
Osteopontin and Cystatin C

Zahra Ali

Mentored by Hanako Yoshida
Psychology
Differences in Attention During
Parent-Child Play Sessions Between
Bilingual and Monolingual Children
With Autism

Yasmine Almadi

Mentored by Min Kang
Industrial Design
A Systems Design Approach for
a Circular Economy in the Coffee
Industry and Community

2025 UNDERGRADUATE RESEARCH DAY PRESENTERS

Radiya Almosa

Mentored by Craig Johnston
Health and Human Performance

Examining Biomarkers and Eating Behaviors in College Students: A Sex-Based Perspective

Mustafa Alshahristani

Mentored by Nagham Al-Zubidi
MD Anderson Cancer Center, Head and Neck Surgery

Cemiplimab in Squamous Cell Carcinoma With Perineural Invasion and Ophthalmoplegia

Mariam Aly

Mentored by Julie C. Dunsmore
Psychological, Health, and Learning Sciences

The Role of Culture as a Social Determinant of Healthcare Experiences of Arab Americans

Suleyman Ancin

Mentored by Kelly Huang
Mechanical and Aerospace Engineering

The Role of Emergent Vegetation in Wetland Gas Movement and Hydrodynamic Patterns

Salma Ansari

Mentored by Tianfu Wu and Aygun Teymur
Biomedical Engineering

Advanced Multiplex Lateral Flow System for Detection of OPN and Cystatin C in the Urine of Lupus Nephritis

Naumi Aparanji

Mentored by Nouhad Rizk
Computer Science

Evaluating Peer Mentorship Benefits in New Computer Science Students

Ali Ardda

Mentored by Xiaonan Shan
Electrical and Computer Engineering

Robotic Dog Automation & a Digital Pipette Design

Zane Augulis

Mentored by Piruz Saboury
Economics

The Impact of Donor Funding on Collegiate Institutional Performance

Dalia Awad

Mentored by Richard Meisel
Biology and Biochemistry

Sex-Specific Gene Expression Differences in *Drosophila melanogaster* Heads Revealed by RNA-Sequencing Analyses

Alora Baehr

Mentored by Eunjeong Lee and Rikki Bettinger
English; Office of Undergraduate Research and Major Awards

A Discussion on Disability: The Language of Chronic Pain

Ke'La Barnes

Mentored by Julia Babcock
Psychology

When Dominance Drives: Exploring Moderators of Intimate Partner Sexual Coercion

Lindsay Bevers

Mentored by Michael Zvolensky and Justin Shepherd
Psychology

The Association Between Anxiety Sensitivity and Eating Expectancies in Hispanic Emerging Adult College Students

Ria Bhatia

Mentored by Michael D. Snediker
English

Reading Hardy's Victorian Antiheroine, Tess of the d'Urbervilles, as a Saidian Contrapuntal "Other"

Juhi Bhatt

Mentored by Hanako Yoshida and Johanna Bick
Psychology

Project Mimic: Exploring Facial Mimicry in Parent-Infant Dynamics

Zahra Bhattacharya

Mentored by Wenshuang Wang and Jian Shi
Mathematics; Engineering Technology

Evaluating the Impact of Carbon Pricing Discrepancies on Global Climate Strategies: Implications From the Paris Agreement

Afzila Bhojani

Mentored by Marc Hanke and Jennifer Lynn Spencer Clinton
Honors, Biology; Baylor College of Medicine, Pediatrics

CXCR3 Antagonism Reduces Zika and West Nile Virus Replication Across Various Cell Types

Victoria Blake

Mentored by Ann Christensen
English

Folklore and Mythology of Shakespeare's *A Midsummer Night's Dream*

Lucy Blood

Mentored by Kerri Crawford and Kayla Zinsmeyer
Biology and Biochemistry

What Is the Effect of Cultivated Native Microbial Soil Amendments on Coastal Dune Restoration Efforts?

Alissa Boxleitner

Mentored by Zelma Oyarvide Tuthill
Sociology

Resources for Houstonians Experiencing Human Trafficking and Commercial Sexual Exploitation

Brandon Burlison

Mentored by Jeff Feng
Industrial Design

Developing a Headset Integrating Vision Testing and VR With EEG Scanning

Kadilo Buzugbe

Mentored by Laura Bland
Honors, English

The Inability of AI Chatbots to Write Poetry

Catherine Cabrera

Mentored by Tony Liao
Information Science Technology

Understanding Perceptions and
Conversations With Augmented
Reality Avatars

Hy Cao

Mentored by Margarida Albuquerque
Almeida Santos
MD Anderson Cancer Center, Epigenetics
and Molecular Carcinogenesis

Regulation of CBP Protein Stability by
CARM1 Activity

Owen Christian Capule

Mentored by Richard Meisel
Biology and Biochemistry

Understanding the Roles of Bicoid
and Broad in Lysozyme Production

Nicholai Caterina

Mentored by Michael D. Snediker
English

The Spectral Sequence: An
Exploration of Destiny, Nature, and
Eulogy Through Aesthetic Topology

Jonathan Chan

Mentored by Kerri Crawford
Biology and Biochemistry

The Impact of Climate Change on Soil
Microbial Ecosystems

Seaver Chester

Mentored by P. Shiv Halasyamani and
Eric Gabilondo
Chemistry

Synthetic Exploration of a New
Yttrium Borate-Based Solid Solution,
(K7-XNa)SrY2B15O30, for Deep UV
Nonlinear Optical Applications

Nour Chibani

Mentored by Emily LaVoy and Maria
Chang Swartz
Health and Human Performance; MD
Anderson Cancer Center, Pediatrics

The Impact of Physical Activity
and Exercise on Cancer-Related
Fatigue Among Adolescents and
Young Adults With Brain Tumors: A
Systematic Review

Anderson Chitsosa

Mentored by Tameka A. Clemons
Biomedical Sciences

AMYLIN: A Potential Contributor of
Amyloid Beta Aggregation

Cheery Chukwukelu

Mentored by Jerrod Henderson
Chemical and Biomolecular Engineering

An Exploratory Analysis of Cultural
Capital Among Black Engineering
Students at Minority Serving
Institutions (MSIs)

Simrat Clair

Mentored by Christoph F. Eick
Computer Science

Association Analysis of Crime From
the Victim's Perspective

Bradley Cline

Mentored by Tian Chen
Mechanical and Aerospace Engineering

Properties of 3D Printed Flat and
Volumetric Knits

Reece Collins

Mentored by Ben Rayder
Office of Undergraduate Research and
Major Awards

The MERIT Mammography Cohort
to Develop Improved Screening for
Breast Cancer Through Integration of
AI and Blood Based Biomarkers

Taylor Cornett

Mentored by Robert Fox
Biology and Biochemistry

Identifying Irregular Polygon Packing
Geometries Within Protein Families

Jonathan Cruz

Mentored by Daphne Hernandez
Health and Human Performance

Modifications Based on Cognitive
Interviews to the Spanish-Language
Food Security Survey Module
(S-FSSM)

Juliana Dahlhoff

Mentored by Allison Master and Sydney
Baker
Psychological, Health, and Learning
Sciences

How Gender-Language Arts
Stereotypes Predict Achievement for
Adolescents

Paul Daniel

Mentored by Norma E. Olvera
Psychological, Health, and Learning
Sciences

School and Neighborhood Health
Perceptions of Hispanic and African
American Youth: Advocating for
Healthy Communities

Linh Dau

Mentored by Cumaraswamy
Vipulanandan
Civil and Environmental Engineering

Evaluating the Effect of Coffee
Powder During Curing Process of
Cement Paste

Joaquin Davila

Mentored by José Angel Hernández
History

Disease in the Making of the Texas-
Mexico Borderlands and the Mexican
Race: The Case of Typhus Fever

Saptarshi De

Mentored by Daniel Biediger
Computer Science

Emotion Tracking Using Facial
Analysis and ML for Stress
Management

Yumei De La Barreda

Mentored by C. Raymond Knee
Psychology

First-Generation Status and
Negative Mental Health Outcomes
As Moderated by Familial Basic
Psychological Need Frustration

Shalaka Dhavalikar

Mentored by Pranav J. Parikh
Health and Human Performance

Making Sense of Movement: A
PCA Based Model for Quantifying
Pediatric Hand Movement Quality

Norverto Diaz

Mentored by Donna Kacmar
Architecture

A Holistic Approach in Third Ward
Material Analysis

Lauren DiPaola

Mentored by Greg Morrison and Matheus
Mello

Physics; Rice University, Center for
Theoretical Biological Physics

Comparison of mRNA Transport
Rates in the Traditional and Inverted
Nuclear Architectures

Dang Do

Mentored by Martin A. Nuñez
Biology and Biochemistry

UH Green Roof: Impact of Rainfall
and Implications for Compatibility of
Native Wildflowers

Yasmeen Elfeki

Mentored by Seoung Hoon Park
Health and Human Performance

Effects of Phasic Transcutaneous
Spinal Stimulation Paired With
Visually Guided Weight Transfer in
Individuals Post Stroke

Samma Elhammady

Mentored by Bradley H. Smith
Psychological, Health, and Learning
Sciences

Comparing Two Summer Camps With
the Four Types of Fun Framework

Hamza Fadel

Mentored by Lori Hathon and Gabriel
Unomah
Petroleum Engineering

The Effect of Effective Stress and
Temperature on Ultrasonic Velocities
in Sands: Monitoring CO₂ Storage

Luiz Fernandez

Mentored by Tai-Yen Chen
Chemistry

Spatial Super-Resolved Fluorescence
Lifetime Imaging Microscopy (FLIM)
Using a Compress Sensing Strategy

Luke Filyk

Mentored by Abigail Modaff
Honors, History

The Correlation Between Lynchings
and State Sanctioned Murder

Ana Frausto-Leija

Mentored by Gabriela Baeza Ventura and
Carolina Villarroel
Arte Público Press

Eloise Garcia Castillo: Proof of
Political Participation

Evan Fraustro

Mentored by Weidong Shi
Computer Science

Text to Music Generation Using
Generative AI

Madison Freeman

Mentored by Amber Thiessen
Communication Sciences and Disorders

Effectiveness of Keywording as a
Communication Tool for Persons
With Aphasia

Nathan Fuentes

Mentored by Emily LaVoy
Health and Human Performance

Mitochondrial Function in T-cells: The
Impact of Cardiorespiratory Fitness
and Body Fat in Men and Women

Maggie Fuller

Mentored by Preethi Gunaratne and Greg
Morrison

Biology and Biochemistry; Physics

Discovering Immunogenic
Neopeptides From Novel Chimeric
RNA FGFR3-KHSRP to Develop
Vaccines for Pancreatic Cancer

Isabela Garcia

Mentored by Michael Murphy
Earth and Atmospheric Sciences

Neotectonic Investigation of the Red
Rock Fault: Sheep Creeks Segment

Jonathan Gaucin

Mentored by Vedhus Hoskere
Civil and Environmental Engineering

Corrosion-Under-Coating Detection
With Pulsed Infrared Thermography

Luke Ging

Mentored by Daphne Hernandez
Health and Human Performance

Food Insecurity and Health Goals
Among Young Adults Experiencing
Homelessness

Keila Gonzalez

Mentored by Rosenda Murillo
Psychological, Health, and Learning
Sciences

Higher Psychological Distress Is
Associated With Higher Alcohol
Consumption in Latinos

Valeria Gonzalez

Mentored by William Truitt
Architecture

The True Cost of Free Trade Zones

Julia Gorman

Mentored by Erin Kelleher and Lorrissa
Saiz

Biology and Biochemistry

Designing a Multi-Variant Construct
to Determine the Causative Variant
of Reduced Dysgenic Sterility

Emily Graves

Mentored by Adam Stuckert
Biology and Biochemistry

Spectral Analysis of Aposematic
Coloration Across Mimetic
Populations of the Peruvian
Ranitomeya

Agnes Gunawan

Mentored by Yu Liu
Biology and Biochemistry

Role of MYLK4 in C2C12 Myoblast
Differentiation and Metabolic
Enzyme Activity

Arnav Gupta

Mentored by Raul Susmel
Finance

Correlation Analysis of Energy
Transition Factors and Brent Oil
Prices

Tico Hannan

Mentored by Gangbing Song
Mechanical and Aerospace Engineering

State of Health Estimation of
Cylindrical Lithium-Ion Cells Using
Multiple Random Convolutional
Kernel Transform and Low-Frequency
Stress Waves

Pranav Hariharan

Mentored by Richard Meisel
Biology and Biochemistry

Exploring Sex-Biased Expression of
Polo-like Kinase (Plk) Genes in *D.
melanogaster*

Mia Harris

Mentored by Irene Guenther
Honors, History

Lynn Eusan's Legacy in the Greater
3rd Ward Community

Tisha Haukongo

Mentored by Abdul L. Khan
Engineering Technology

Synthetic Microbial Communities for
Plant Stress Tolerance

Brianna Haynes

Mentored by Haylee Harrell
English

Pleasure and Respectability:
Navigating Motherhood, Identity, and
Agency in Black Women's Literature

Alfredo Hernandez

Mentored by Jian Shi
Engineering Technology

Forecasting Energy Consumption
During Hurricanes Using Machine
Learning

Edgar Hernandez

Mentored by Lorra Garey
Psychology

Craving the Clouds: Approach Bias
and the Struggle to Quit Combustible
Cigarettes and Electronic Cigarettes

Joey Hernandez

Mentored by Andrew Kapral
Honors, Engaged Data Science

Resilience in Transition:
Socioeconomic Disparities in
the Post-pandemic Recovery of
Houston's Community Hubs

Nathan Hernandez

Mentored by Yi-Chao Chen
Mechanical and Aerospace Engineering

A Simple Mathematical Model to
Determine Pressure Drop Throughout
the Bronchial Tree

Dyma Hikmat

Mentored by William Ott and Kyle
Williams
Mathematics

Evader Detection in Hyperbolic
Sensor Networks

Amara Holeman

Mentored by Mary Manning
UH Special Collections

The Web of the Thomas Family: How
Sippie and Her Family Relate to the
Connections Within Music

Donna Iles

Mentored by Thomas S. Teets and
Sungwon Yoon
Chemistry

Design for Cyclometalated Platinum
Complexes for Enhanced Red
Emission

Alveena Imran

Mentored by Daphne Hernandez and
Natalia I. Heredia
Health and Human Performance;
UTHealth Houston, Health Promotion and
Behavioral Sciences

The Effect of a Culinary Medicine
Intervention on the Dietary Habits of
Patients With Type 2 Diabetes

Suhaib Irfan

Mentored by Christoph F. Eick and
Raunak Sarbajna
Computer Science

The Development of a Lunar
Navigation System Utilizing Cost
Based Path-Finding Algorithms

Ahmad Ismat

Mentored by Moawiz Saeed
UT Health San Antonio

Treatments of Urinary Leaks:
Spectrum of Interventions for
Diverse Pathologies and IR Treatment
Experience

Ahsan Ismat

Mentored by Moawiz Saeed
UTHealth San Antonio

Lyme Disease Presenting As Rupture
Baker's Cyst

Lizbeth Jaimes

Mentored by Jaye L. Derrick
Psychology

Social Media Posts Depicting Hyper-
Masculine or Feminine Dominant
Ideals: Does It Influence the Well-
Being of Young Adults Romantic
Relationships?

Funmilola Jesse

Mentored by Alexandra Landon
Honors Engineering Program

Mitigating Carbon Emissions in the
Oil & Gas Sector: A Comparative
Economic Analysis of the US and
Nigeria

Kailey Jirsa

Mentored by Ben Rayder
Office of Undergraduate Research and
Major Awards

Comparative Analysis of
Undergraduate Research in Different
Disciplines at the University of
Houston

George Johnson

Mentored by Pablo Troncoso
Economics

Artificial Intelligence and Automation
and Its Effect on Foreign Labor

Joyce Joy

Mentored by Daphne Hernandez and
Annalynn Galvin
Health and Human Performance;
UTHealth Houston, Cizik School of
Nursing

Perinatal Nutrition Knowledge and
Sources of Information Among
Recently Postpartum Women
Experiencing Homelessness: A
Convergent Parallel Mixed-Methods
Study

Aila Khan

Mentored by Johanna Bick and Haley
Laughlin
Psychology

The Impact of NICU Stay on
Prematurely Born Toddlers' Visual
Engagement Processes: A Task-
Related EEG Study

Anisah Khan

Mentored by Auritro Majumder
English

The Great Indian Divide of 1947: Told
by Two Generations

Fatima Khan

Mentored by Hanako Yoshida
Psychology

Parental Education and Child
Vocabulary Outcomes: The Role of
Parent Labeling and Child Visual
Attention Synchrony During Parent-
Child Play

Rex Kidd

Mentored by Andrew Kapral
Honors, Engaged Data Science

From Vacant to Vibrant: Suitability
Testing and Estimating Impacts of
Vacant Plots for Potential Urban
Agriculture in Harris County

Cameron Klassen

Mentored by Mili Kyropoulou
Architecture

Let Me Go Semi-Outside: A
Human-Centric Analysis of Outdoor
Comfort Models in a Hot-Humid
Semi-Outdoor Environment During
Summer and Mid-Season

Carter Klebuc

Mentored by Aaron Becker
Electrical and Computer Engineering

UAV GPS-Denied Navigation via
Coastal Navigation Motion Planning

Medha Kukkali

Mentored by Elizabeth Jelsma and Mahnoor Ahmad
Psychological, Health, and Learning Sciences

Effects of John Henryism Active Coping and Lifetime Discrimination on Sleep Outcomes

Fahim Kunhi Mohamed

Mentored by Michael Ray Newman
Accountancy and Taxation

Impact of Artificial Intelligence in Accounting

Gabrielle Lansangan

Mentored by Melody Yunzi Li
Modern and Classical Languages

Intergenerational Relationships and Inheritance in Chinese Science Fiction: Negotiation Between Tradition and Modernity

Anh Le

Mentored by Jeffrey Rimer
Chemical and Biomolecular Engineering

Understanding Calcium Phosphate Crystallization: Brushite

Danny Le

Mentored by Mehmet Şen
Biology and Biochemistry

Magnesium in the Stability and Behavior of the α L-I Domain

Jacqueline Le

Mentored by Ling Zhu
Political Science

Impact of Affirmative Action Policy on Public University Campus Diversity

Rosemarie Faustina Le

Mentored by Andrew Kapral
Honors, Engaged Data Science

Beyond Just Books: Public Libraries As Lifelines in Texas's Rural, Suburban, and Urban Communities

Tuyen Le

Mentored by Sarasij Majumder
Modern and Classical Languages

Kawaii As Politics: The Visible-Invisibility of Oriental Japan

Eric Lee

Mentored by Tania Chen
Stanford School of Medicine,
Cardiovascular Medicine

Language as a Barrier to Involvement of Asian Americans in Cardiovascular Clinical Trials

Jacob Leipold

Mentored by Mehmet Şen
Biology and Biochemistry

Structural Impact of the N-Terminal Flanking Peptide on VWF A1 Domain

Grace Lewis

Mentored by Hanako Yoshida and Sarah Mire

Psychology; Baylor University,
Educational Psychology

The Effect of Autism and ADHD on Children's Attentional Engagement

Ricardo Leyba

Mentored by Lars Grabow
Chemical and Biomolecular Engineering

Insights Into the Reaction Mechanism of PtCu Alloys As Catalysts for CO Oxidation

Natalie Linde

Mentored by Marzia Cescon and Daniel Joseph DeSalvo

Mechanical and Aerospace Engineering;
Baylor College of Medicine, Pediatrics

Evaluating Glycemic Outcomes in Youth With Type 1 Diabetes Using Omnipod 5 AID System

Rebekah Loriga-Oliveira

Mentored by Cory Meals
School of Music

Effects of Music Marking on Singing Accuracy During Sight-Reading

Sydney Lozado

Mentored by Ioannis Konstantinidis and Andrew Kapral
Honors, Data and Society

Get Out the Vote! An Analysis of Voter Turnout in Midterm Elections Across Harris County Census Tracts

Orion Lucero

Mentored by Zhengwei Li
Biomedical Engineering

Development of Implantable Bioelectronic Device for Bladder Stimulation

Sydney Aleanna Magat

Mentored by Clayton Neighbors and Andrew Weinstein
Psychology

Contextual Factors in Drinking Likelihood Among College Students With ASD Symptomatology

Ali Mahmud

Mentored by Wa Xian and Frank McKeon
Biology and Biochemistry

Mucosal Stem Cells From Crohn's Disease: The Role of DcR3 in Defense Mechanisms Against FasL-Induced Apoptosis

Alexandrine Makhoul

Mentored by Martin A. Nuñez
Biology and Biochemistry

The Globalization of Native American Plants: From Food Staples to Gourmet Superfoods

Swarnil Mandal

Mentored by Gang Li
MD Anderson Cancer Center, Biologics and Immunotherapy Translation

Evaluating the Efficacy of CBP/p300 Inhibitors and Degraders As ADC/DAC Conjugates in Cancer Therapy

Swarnil Mandal

Mentored by Lisa Mustachio
MD Anderson Cancer Center, Applied Cancer Science

Inhibiting Mutant RAS Inhibitors in Cell-Based Assays

Eira Mann

Mentored by Yu Liu
Biology and Biochemistry

Role of RNA Regulator CELF1 in DNA Damage Repair

Collin Mansur

Mentored by Michelle Belco
Honors, Political Science

Interstate Water Compacts: Gauging Effectiveness and Adaptability to Climate Change

Jack Markham

Mentored by Clayton Neighbors and Andrew Weinstein
Psychology

The Association Between Depression, Impulsivity, and Aggression

Ibraheim Maudood

Mentored by Chandra Mohan and Aalekhya Biswas
Biomedical Engineering

In Vitro Analysis of TH₂-Like Cytokines on EMT-Related Protein Expression in M2 Macrophages

Enoabasi Mbaba

Mentored by Bradley H. Smith
Psychological, Health, and Learning Sciences

A Prayer a Day Keeps CAPS Away: Is Religiosity Associated With the Happiness and Mental Well-Being of Minority College Students?

Isha Merchant

Mentored by Mohan Ambikaipaker
Modern and Classical Languages

Queering the South Asian Diaspora: A Look Into Finding Love and Community

Kelsey Middleton

Mentored by Haylee Harrell
English

Black Narratives in Print: Analyzing Intergenerational Trauma in Memphis: A Novel & 20th Century Newspapers

Zunaira Mirza

Mentored by Thomas S. Teets
Chemistry

Visible-Light Catalytic Transformation of Unactivated Alkyl Halides Enabled by Strongly Reducing Photosensitizers

Haneef Mohammed

Mentored by Jinsook Roh and Kyoungsoon Kim
Biomedical Engineering

Quantifying Abnormal Flexion Synergy Using an Upper-Extremity Exoskeleton for Stroke Rehabilitation

Maryam Mohy

Mentored by Sandra Zalman
Art History

Long Live Degenerate Art: The Struggle for a National Identity in 20th Century Egyptian Art

Tasneem Monib

Mentored by Todd Romero
History

Arab Migration in Gulf Coast Foodways

Jesus Morales Cruz

Mentored by Daphne Hernandez
Health and Human Performance

Various Measures of Housing Instability as Predictors of Food Insecurity

Macy Mosier

Mentored by Daniel Onofrei
Mathematics

A Novel Iterative Method for Beam Focusing With an Antenna Array

Maryam Mukhtarov

Mentored by Richard Meisel
Biology and Biochemistry

Investigating the Role of Gut Specific Relish Expression in Aging in *Drosophila melanogaster*

Katerina Munoz

Mentored by Jennifer L. Adams
Sociology

From Confined to Inclusive Masculinity: Video Games, Masculinity, and Homosocial Connection

Katerina Munoz

Mentored by Carolina Villarroel and Lorena Gauthereau
Arte Público Press

La Mujer En Acción: Latina Contributions and Connections in Early 20th Century Press

Maryam Naeem

Mentored by Wenshuang Wang
Mathematics

The Effect of Extreme Heat Events on Renewable Energy Sources

Mahima Nagaraj

Mentored by Carl E. Allen
Baylor College of Medicine, Pediatrics

Investigating Macrophage Phagocytosis in Ms4a3-CreBRAFV600E and Cd11c-CreBRAFV600E

Netra Nagoor

Mentored by Andrew Kapral
Honors, Engaged Data Science

Understanding the Financial Burden of Chronic Respiratory Conditions in Houston

Anjalee Nair

Mentored by Andreas Mang
Mathematics

Exploration of the Workings of Neural Networks

Afra Nawar

Mentored by Jaspal Subhlok
Computer Science

Evaluating KeyBERT for Keyword Extraction in Lecture Videos

Adam Nelson-Archer

Mentored by Christoph F. Eick and Raunak Sarbajna
Computer Science

Synthesis of Lunar Horizon Imagery Using Generative Models

Angela Nguyen

Mentored by Chandra Mohan
Biomedical Engineering

The Molecular Basis of Blood-Brain Barrier Breach and Cognitive Impairment in Neuropsychiatric SLE As Revealed by Proximity Extension Assay Proteomics

Emily Nguyen

Mentored by Heather Caslin
Health and Human Performance

Investigating the Epigenetic Regulation of Innate Immune Memory

Katelyn Nguyen

Mentored by Monique T. Mills and Grace Lee
Communication Sciences and Disorders

Examining Pre-service Teachers' Perceptions of Narrative Language Quality in School-Age African American English Speakers

Minh Nguyen

Mentored by Ioannis Konstantinidis
Honors, Data and Society

What Are the Leading Causes That Affected the Marginal Difference in COVID-19 Vaccination Rates in the Houston Community (Harris County)?

Adithi Nythruva

Mentored by Abigail Modaff
Honors, History

Reframing Jewish Feminism in America: An Analysis of American Jewish Women and the Negotiation of Their Jewish and Feminist Identities Pre-World War 2 to Post-World War 2

Adithi Nythruva

Mentored by Irene Guenther
Honors, History

Local 872: Houston's Black Longshoremen's Union and Its Relevance in Researching Lynn Eusan's Life and Death

David Odejimi

Mentored by Andrew Kapral and Ioannis Konstantinidis
Honors, Data and Society

The Impact of High Imprisonment Numbers and Tough Sentences for Non-Violent Crimes on Racial Bias Within the Criminal Justice System of Harris County

Amarachukwu Okeke

Mentored by Erin Kelleher and Shahrzad Hajjarbabi
Biology and Biochemistry

The Role of UDP-Glycosyltransferases and Cytochrome P450s in UVB Tolerance

Alexa Olivi

Mentored by Bernhard Rappenglueck
Earth and Atmospheric Sciences

Atmospheric Mercury Analysis at University of Houston

Sonya Ortiz

Mentored by Kelly Huang and Heet Joshi
Mechanical and Aerospace Engineering

Development of a Highly Sensitive, Fast-Response Surface Plasmon-Based Humidity Sensor

Fejiro Oweh

Mentored by Gheni Platenburg and Marwa Ghazali
Communication; Comparative Cultural Studies

Perceptions: A Qualitative Study on Marvel's Black Panther Influence on Pan-African Identity Among 2nd Generation Nigerian Americans & Black Americans

Aisosa Ozo-Ogbeide

Mentored by Natalie Toro
Student National Medical Association

Utilizing a Multidisciplinary Approach to Assess the Impact of Maternal Mental Health on Neonatal Health Outcomes in Sierra Leone

Nirali Patel

Mentored by Tracey Ledoux
Health and Human Performance

Examining the Impact of Self-Compassion on Intuitive Eating and Weight Status

Alexa Perez

Mentored by Daniel Engster
Public Affairs

Reimagining Welfare: Addressing LGBTQ Needs in Texas Policy

Zuhail Polat

Mentored by Clayton Neighbors and Andrew Weinstein
Psychology

Academic Stress and Drinking to Cope: The Indirect Role of Depression in College Students

Asaunte Powell

Mentored by Ben King
Health Systems and Population Health Sciences

2023 Harris County Homelessness Mortality Report

Sayantana Pradhan

Mentored by Mehmet Şen
Biology and Biochemistry

Structural Significance of Von Willebrand Factor in Mediating Thrombosis and Inflammation

Sudharshini Prasanna

Mentored by Heather Dial and Lynn Maher
Communication Sciences and Disorders

Strengthening Connections: The Impact of Semantic Association Strength on Treatment Response During CILT

Cameron Ptak

Mentored by Quentin Vicens
Biology and Biochemistry

Monitoring RNA AGG-Quadruplexes in BMI-1 mRNA

Raayed Rahman

Mentored by Chandra Mohan
Biomedical Engineering

Point-of-Care Vertical Flow Assay Testing Using Saliva in Lupus Patients

Gonzalo Ramirez Pulido

Mentored by Summer Chavez
Integrated Health Systems Sciences

Bridging the Gap: The Role of Hospital Violence Intervention Programs in Level 1 Trauma Centers

Toni Ramos

Mentored by Brandee Carlson and Lucille Baker-Stahl
Earth and Atmospheric Sciences

Assessing Vertical Stratification of Salinity to Understand Sediment Transport With Mathematical Approaches in the Arctic Circle

Ritesh Ravi

Mentored by Andrew Kapral
Honors, Engaged Data Science

Identifying Carcinogenic Vapor Intrusion Risk in Harris County

Patrick Redmond

Mentored by Siavash Zamiran
Civil and Environmental Engineering

Seismic Hazard Investigation of LNG Export Facilities in the USA

Saron Regassa

Mentored by Haylee Harrell
English

Caricatures, Reflections, and Tokens: The Currency and Foundation of the Digital Public

Dylan Rogers

Mentored by Amanda Baumle
Sociology

The Other Side of the Coin: A Thematic Analysis of Men's Experience With Evangelical Purity Culture

Jacqueline Rudisill

Mentored by Julia Babcock
Psychology

The Role of Dominance as a Moderator Between Personality Disorders and Intimate Partner Violence: A Study on BPD and ASPD

Faiza Sachwani

Mentored by Michael Zvolensky
Psychology

Examining the Effects of Biological Sex and Pain Interference on PTSD Symptom Severity

Celine Saidy

Mentored by Steven Pennings
Biology and Biochemistry

Global Change Affects Height of Salt Marsh Grasses

Rohaba Sajjad

Mentored by Mostafa Momen
Civil and Environmental Engineering

Predictive Modeling of Weather Trends

Darrell Salako

Mentored by Donna L. Pattison and Ezenwa C. Onyema
Biology and Biochemistry; McGovern Medical School, Geriatric and Palliative Medicine

Assessing Impact of Gabapentin in Combination With High-Risk Medication on Delirium Rates and Hospital Length of Stay Among Geriatric Trauma Patients

Adolfo Salazar

Mentored by Lesli Vollrath
Honors, English

Narrative Healing: Testimonio As Desahogo in Elizabeth Farfán-Santos' Undocumented Motherhood

Adolfo Salazar

Mentored by Greg Morrison
Physics

In Silico Investigation of Chromosome Structure in Densely Packed Conditions

Kiana Samiei

Mentored by Clayton Neighbors and Nicole Hall
Psychology

Prospective Associations Between Alcohol Use in Adolescence and Mental Health Diagnoses in Adulthood

Santiago Sanchez Cabarcas

Mentored by Carla Sharp
Psychology

Perceived Discrimination, Adult Attachment, and Mental Health Symptoms in Formerly Incarcerated Women

Brittany Sandoval

Mentored by Haylee Harrell
English

Our Beloved Swarm: Confronting Black Women's Mental Health Stigma Through the Lens of Horror

Caroline Sarver

Mentored by Rosenda Murillo
Psychological, Health, and Learning Sciences

Child-Experienced Discrimination Is Associated With Higher Anxiety and Depression in Latino Parents

Vir Sehgal

Mentored by Kimberly Meier
Vision Sciences

Comparing OCT vs. Eye-Trackers for Quantifying Eye Fixation Stability

Aashna Shah

Mentored by Carla Sharp and Kenedy Balzen
Psychology

Examining the Association Between Racial Identity and Suicidal Ideation Among Black Youth

Sanidh Shah

Mentored by Kirill Larin
Biomedical Engineering

Assessing Morphological Effects of Prenatal Cannabinoid Consumption on Murine Embryos With Optical Coherence Tomography

Shimonee Shah

Mentored by Krishna M. Boini
Pharmacological and Pharmaceutical Sciences

Role of Thioredoxin Interacting Protein in Nicotine-Induced Inflammasome Activation and Podocyte Injury

Eric Shin

Mentored by Caryn Tamber-Rosenau
Comparative Cultural Studies

Understanding the Talmud in a Korean and Korean-American Context

Abdullah Shittu

Mentored by Christine Ehlig-Economides
Petroleum Engineering

Houston Hydrogen Transportation Pilot

Navya Shivam

Mentored by Nathan Grant Smith and Jacob Crocker
Psychological, Health, and Learning Sciences

Exploring the Temporal Links Between Minority Stress, Allostatic Load, and Substance Use: A Systematic Review of the Literature

Maria Siddeeqe

Mentored by Ben King
Health Systems and Population Health Sciences

Qualitative Study of Opportunities for Prevention of Overdoses Associated With Homelessness

Amna Siddiqui

Mentored by Bhavya Tiwari
Modern and Classical Languages

Ishrat Afreen's Voice in South Asian Poetic Tradition

Diego Sierra

Mentored by Raul Susmel
Finance

Regression Analysis of the Effects of Socio-Political Factors on Financial Indicators in Emerging Economic Markets

Yasmin Soltani

Mentored by Andrew Kapral
Honors, Engaged Data Science

Language Acquisition for Refugee Students in Texas Public Schools

Samson Stern

Mentored by Karen McIntush
Mathematics

Changing Careers, Changing Classrooms: How CCSTs Are Reshaping Classrooms With teachHOUSTON

Annfaye Sternberg

Mentored by Abigail Modaff
Honors, History

The Ladies' Pioneer Society: Patterns of Thinking in One of the Oldest Women's Literary Clubs in the United States

Alyssa Stewart

Mentored by Hanako Yoshida and Elizabeth Perkovich
Psychology

Comparing Autism and Typically Developing Groups on Parent Speech as a Function of Joint Attention

Nathan Stiehl

Mentored by Marc Hanke and Marilyn Albert
Honors, Biology; Johns Hopkins School of Medicine, Neurology

Walking Speed and Brain Connectivity in Older Adults

Yahaira Suchil

Mentored by Ben King and Omolola E. Adepoju
Health Systems and Population Health Sciences; Integrated Health Systems Sciences

Health Harming Legal Needs and Their Relationship With Mentally Unhealthy Days in Participants Screened for a Medical Legal Partnership

Neeraj Suresh

Mentored by Arne Lekven
Biology and Biochemistry

Using "Recombineering" Technology to Modify a wnt1/wnt1ob Genomic PAC Clone

Angelique Tagaban

Mentored by Virginia Snodgrass Rangel
Educational Leadership and Policy Studies

The Perceptions of Teaching Among Natural Science and Mathematics Majors

Brandon Than

Mentored by Preethi Gunaratne and Shiyanth Thevasagayampillai
Biology and Biochemistry

Integrating WES and Total RNA-Seq to Identify Gene Fusions in 11q13, in Development of a Personalized Peptide Vaccine for Breast Cancer

Tiffani Than

Mentored by Daniela Peláez-Palacio and Alvaro Rojas-Peña
University of Michigan Medical School, Surgery

Supporting Extremely Premature Infants Using an Artificial Placenta System: A Premature Ovine Model

Cory Thomas

Mentored by Tshepo Masango Chéry
History

Contextualizing the Rwandan Genocide

Kareli Tobias

Mentored by Daphne Hernandez
Health and Human Performance

Modifications Based on Cognitive Interviews to the Spanish-Language Four Domain Food Insecurity Scale (4D-FIS)

Emme Tomasello

Mentored by Debarati Sen
Comparative Cultural Studies

Killing Art, Killing History: Evaluating Responses to Far-Right Vandalism

David Torres Jr.

Mentored by Jaewook Kim
Global Hospitality Leadership

The Intersection Between Modern Technology and Small Business Growth

Cynthia Tran

Mentored by Tai-Yen Chen
Chemistry

Investigating the Role of Copper During Neural Development

Melody Tran

Mentored by Xiaodong Cheng
MD Anderson Cancer Center, Epigenetics and Molecular Carcinogenesis

Binding of BCL11A Zinc Fingers to DNA Motifs in the β -Globin Locus

Jennifer Trejo

Mentored by Clayton Neighbors and Andrew Weinstein
Psychology

Exercise Motives, Body Image Anxieties, Alcohol Consumption as Predictors of Physical Activity

Andrea Tribble

Mentored by Ameenah Shakir
African American Studies

Unveiling Legacy: Black Women's Leadership in the Black Campus Movement

Aanshi Trivedi

Mentored by Melissa Zastrow and Gary Jensen
Chemistry

Increasing Zinc Affinity in tr-All128og2 as a Fluorescent Metal Ion Sensor

Ben Jose Tuason

Mentored by Rakesh Verma
Computer Science

2-D Binary Classifier for Linearly Separable Points Through Geometric Line Stabbing

Morgan Turner

Mentored by Andrew Kapral
Honors, Engaged Data Science

Towards Environmental Equity: Investigating Socioeconomic Disparities in Access to Recycling Services

Lizette Villanueva

Mentored by David Qian
MD Anderson Cancer Center, Thoracic Radiation Oncology

Proton vs. Photon Chemoradiation for Locally Advanced NSCLC: Comparing Dose to Immune Cells and Organs-at-Risk

Daniel Viray

Mentored by Vaughn Climenhaga
Mathematics

Topological Entropy of a Sinai Billiard as a Function of Scatterer Radii

Elaine Vo

Mentored by Andrew Kapral
Honors, Engaged Data Science

Investigating the Relationship Between Texas School District Healthcare Expenditures and Academic Outcomes

Eshal Warsi

Mentored by Erin Routon
Comparative Cultural Studies

Just Enough Pain: Central American Asylum Seekers With Gang-Based Persecution Claims

Robin Westveer

Mentored by William Ott
Mathematics

Perturbed Degrade-and-Fire
Oscillations via Bernoulli Distributed
Delay

David Whaley

Mentored by Mahdi Safa
Civil and Environmental Engineering

Reduction of Carbon Emissions
Generated by LNG Storage

Courtney White

Mentored by William Ott and Amanda
Alexander
Mathematics

Noisy Delay Stabilizes Bistable
Genetic Network

Cassidy Wood

Mentored by Richard Meisel
Biology and Biochemistry
A Comparative Analysis and
Annotation of Anti-Microbial Peptide
Genes Across Fly Species

Andrew Wusterhausen

Mentored by Loi Do
Chemistry

Developing Cation-Tunable
Phenoxyimine-Ni Complexes for
Polymerization of Ethylene

Alexandros Xenophontos

Mentored by Tasneem Bawa-Khalfe and
Anthony S. Peidl
Biology and Biochemistry

Investigating SUMO-Interacting
Motifs of Hsp27 and Their Effect on
Protein Binding

Emily Yeh

Mentored by Yoon Koh
Global Hospitality Leadership

Corporate Social Responsibility in
Cruise Companies: A Comparison of
North America, Europe, and Asia

Noah Yi

Mentored by Sunny Yang
English

The Racialization of COVID-19 With
Asian Bodies: How Newspapers
Discussed the Topic in 2020

Fartun Yussuf

Mentored by Chrysa Latrick and Quentin
Vicens

Biology and Biochemistry

Solubility of HIV1 Integrase and
Interaction With LEDGEF

Yousef Zamil

Mentored by Eugénie Bassères and Kevin
W. Garey

Pharmacy Practice and Translational
Research

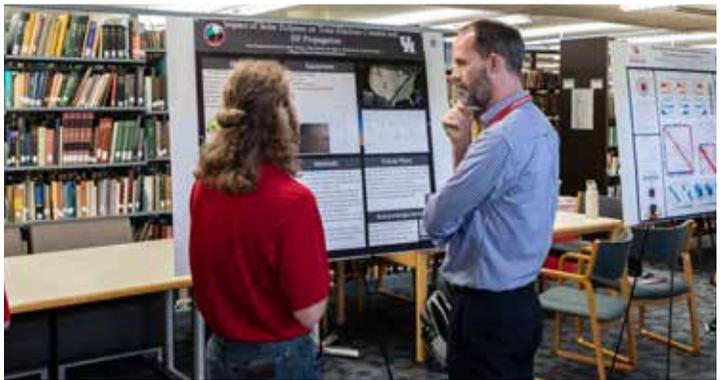
Using *C. elegans* to Observe the Gut
Microbiome Response to Antibiotics
in the Context of *C. difficile*

Kassandra Zapata

Mentored by Gabriela Baeza Ventura and
Carolina Villaruel
Hispanic Studies; Arte Público Press

Integrating Primary Sources Into K-12
Classrooms





GROUP PRESENTATIONS

Chris Edward Ablola, Oluwadurotim Agbesanwa, Abdallah Ghoneim, and Darion Truong

Mentored by Lu Wang
Biomedical Engineering

Stroke Risk Stratification and
Prevention Using Machine Learning
and Explainable AI

Yamilet Abreu, Josh Gamez, Yackeline Galvan, and Lesley Lopez

Mentored by Nirathi Keerthi Govindu
Industrial and Systems Engineering

Computerized Maintenance
Management Software Adoption
Evaluation

Nikhila Achanta, Netra Nagoor, Angela Vu, and Eunice Yi

Mentored by Andrew Kapral
Honors, Engaged Data Science

Affordable Housing and Healthcare:
Examining LIHTC, TIRZs, and Primary
Care Access in Harris County

Srivarshini Achanta, Patrick Day, and Ammar Irshad

Mentored by Craig Johnston and David
Walsh

Health and Human Performance

The Effects of Offset Loading Training
Stimulus on Neural Functionality and
Body Composition

Srivarshini Achanta, Kerry Dinh, Sierra Osborne, and Christina Suarez

Mentored by Daniel Price and Andrew
Kapral

Honors, Data and Society

Understanding the Link to Food
Insecurity in Houston: Mapping Food
Access, SNAP Utilization, and Obesity
Rates

Gail Aflalo, Dylan Magee, Olivia Ong, and Syed Rizvi

Mentored by Jokubas Ziburkus
Biology and Biochemistry

Multi-Sensory Cartography of Natural
Stimuli

Faiyaz Ahmad, Cobe Haddock, and Jordan Ortega

Mentored by Nirathi Keerthi Govindu and
Nathaniel Wiggins

Industrial and Systems Engineering

Systems Integration and Performance

Validation of Haptic Feedback in
Robotic Applications

Ifrah Ahmad and Ashlie Mai

Mentored by Johanna Bick
Psychology

Differential Impacts of Perinatal and
Socioeconomic Risk on Executive
Function and Socioemotional
Processing in Early Childhood

Nawar Ahmed, Joey Hernandez, Sharlet Mathew, and Andy Tran

Mentored by Daniel Price and Andrew
Kapral

Honors, Data and Society

“Co-creating” Operation Fusion: A
Collaborative Approach to Bridging
Health and Culture for Immigrant &
Refugee Youth

Suhaib Ahmed, Huy Pham, Hafida Elhammoumi, and Taha Saad

Mentored by Yaping Wang
Industrial and Systems Engineering

Optimizing Tool Management for
Efficiency

Anoop Akula, Mustufa Khan, Syed Rizvi, and Sweyba Sherif

Mentored by Jokubas Ziburkus
Biology and Biochemistry

Enhancing Student Learning

Outcomes Through Multi-Sensory
Mapping

Siani Alanis and Yadira Hermosillo

Mentored by Gabriela Baeza Ventura and
Carolina Villarroel

Hispanic Studies; Arte Público Press

Recovering Latino/a Life After Death
Through the Morales Funeral Home
Collection

Arisha Ali and Adam Alubaidi

Mentored by Martin A. Nuñez
Biology and Biochemistry

How Global Is Ecology?

Sana Aljandali, Vincent Marmolejo, and Jordyn Sibert

Mentored by Nirathi Keerthi Govindu
Industrial and Systems Engineering

Automated Workflow Using

AI Methods for Compiling

Environmental Legal Documentation

Mona Almufti, Olivia Garza, Phung Huynh, and Jesus Zendejas

Mentored by Yaping Wang

Industrial and Systems Engineering

Room Turnaround Time Reduction

Alice Argueta, Mariela Benavides, Alexis Chavez, Mayra Delacruz, Tyree Jones, and Natalie Silva

Mentored by Laura Lee

Personal Early Educational Performance
Support

Social Media’s Role on the College
Experience

Mahum Baloch, Alexander Lopez, Ritesh Ravi, Amsha Rehan, Lilly Lakshmalla, and Nursemin Ugur

Mentored by Daniel Price and Andrew
Kapral

Honors, Data and Society

The Baseline Resilience Indicators
for Communities (BRICS) for Harris
County

Ayesha Baloch and Ngoc-Trang Adrienne Nguyen

Mentored by Janet Lawler
Honors, Political Science

Evaluating SAT Score Gains in Aspire
Students: Does Pre-/Post-test Format
Matter?

Xiomara Barahona, Sam Sarceno, and Kinza Wahid

Mentored by Robin Proctor

Psychological, Health, and Learning
Sciences

Sleep and Academic Performance
Among STEM vs Non-Major STEM
Students at UH

**Andrea Barrios,
Sofia Bustamante,
Khoa Nguyen,
and Cristina Orrego**

Mentored by Nirathi Keerthi Govindu
Industrial and Systems Engineering

Optimizing the Receiving Inspection
Process to Reduce Backlogs

**Afzila Bhojani, Tayann Cobo,
Emily Faridi,
and Ana Frausto-Leija**

Mentored by Janet Lawler
Honors, Political Science

From AmplifyHER to AmplifyALL:
Boys in an All-Girls Program and Its
Effects

**Lena Boben, Loyed Siby,
Elyse Tran, and Kaylyn Verdun**

Mentored by Daniel Price and Andrew
Kapral

Honors, Data and Society

Potential Correlation of Industrial
Site Presence in Low-Income
Communities Increasing Disease
Prevalence During Hurricane Harvey

**Karina Borja, Lia Gabbanelli,
Akosua Karikari,
and Rosemarie Faustina Le**

Mentored by Daniel Price
Honors, Data and Society

Houston's Current Resourcing
Landscape From the Perspective of
Local Community Health Workers

**Lilian Bui, Tammy Dang,
Kien Nguyen,
and Nguyen Nguyen**

Mentored by Christina Miyawaki
Social Work

The Correlation Between Household
Composition and MoCA Scores in the
Vietnamese Older Adult Population

**Kadilo Buzugbe
and Tarashree Dorairaj**

Mentored by David Mazella
English

The Intricacies of Genre

**Klarissa Castillo,
Brian Holcomb, Iris Lucio,
Jackie Nguyen,
and Sophie Nguyen**

Mentored by Nancy Beck Young and
Sandra Davidson

History

Sharing Stories From 1977: S.T.O.P
the Equal Rights Amendment ('Stop
Taking Our Privileges')

**Kaylee Chang
and Abia Kaleemullah**

Mentored by Candice Alfano
Psychology

The Impact of Screen Brightness and
Media Content on Children's Sleep
Duration

**Jeffrey Cheng, Mattheus Melo,
Joanne Muller, Vincent Nguyen,
and Jorge Rosales**

Mentored by Yaping Wang
Industrial and Systems Engineering

Organizational Improvement of
Storage Area

**Caleb Chiao, Cynthia Tran,
and Elaine Vo**

Mentored by Marc Hanke
Honors, Biology

Understanding Mutation Rates Under
Microgravity Conditions

**Paul Daniel, Saeed Khan,
and Ferhad Mongal**

Mentored by Wa Xian and Frank McKeon
Biology and Biochemistry

Clonal Analysis of Pancreatic Cancer
Stem Cells for Therapeutic Advances

**Paul Daniel, Saeed Khan,
and Ferhad Mongal**

Mentored by Wa Xian and Frank McKeon
Biology and Biochemistry

Characterizing Classical Pancreatic
Cancer Stem Cells in Ascitic Fluid
Through Cloning

Paul Daniel and Nathan Stiehl

Mentored by Ben Rayder and Paul Nemer
Office of Undergraduate Research
and Major Awards; Baylor College of
Medicine

Analyzing the Benefits and Risks of
Telehealth in Adolescent Psychiatry

**Alexandra Deras Diaz
and Izel Moreno**

Mentored by Rosenda Murillo
Psychological, Health, and Learning
Sciences

Latinos That Receive Physical Activity
Counseling Are More Likely to
Engage in Aerobic Physical Activity

**Jasmine Dhaliwal,
Lauren DiPaola,
Abigail Pomeroy,
and Swetha Saravanan**

Mentored by Lu Wang
Biomedical Engineering

Hypoxia-Identifying Explainable
AI for Risk Tracking in Fetal
Cardiotocography (HEART-FC)

**Cuong Duong, Nancy Le,
Hien Nguyen, Mandy Nguyen,
and Vianne Nguyen**

Mentored by Christina Miyawaki
Social Work

Correlational Study Between
"Attention" and "Delayed Recall"
Sections of MoCA Test Across Age,
Gender, and Education

**Kareem El-Giar,
Angela Doncsev,
and Salma Gaballa**

Mentored by Marc Hanke
Honors, Biology

Microgravity Impacts on IL-2 Cytokine
Production

**Yousef Elmakdah
and Hasan Siddiqui**

Mentored by Mehmet Şen
Biology and Biochemistry

Conformational Dynamics of ICAM-
1: Exploring the Role of G241R
and K469E Mutations in Disease
Pathogenesis

**Spencer Ennadi-Johnson
and Edward Nguyen**

Mentored by Omprakash Gnawali
Computer Science

Neural Network-Based Location
Determination via Digital TV Signal
Characteristics and Data Quality

**Olivia Farmer
and Duong Nguyen**

Mentored by Nicolas Jacobsen
Honors, Energy and Sustainability
Energy Feasibility Studies in the
Democratic Republic of Congo

**Julianna Hamilton, Yusuf Islam,
Sina Jafari, Alex Le,
Alexander Mai,
Jyothylakshmi Manoj,
Komathi Sivakumar, and****Melanie Valencia**

Mentored by Bradley H. Smith and Janet
Lawler
Psychological, Health, and Learning
Sciences; Honors, Political Science

Evaluating Self-Efficacy, Expectation
of Future Success, and Skill
Perception in the Writing to Inspire
Successful Education (WISE)
Mentorship Program

**Morgan Harper, Kailey Jirsa,
Vivian Spuede,
and Nathan Stiehl**

Mentored by Bradley H. Smith and Janet
Lawler
Psychological, Health, and Learning
Sciences; Honors, Political Science
The Food Insecurity Team (FIT) at
UH: Evaluating Efficacy and Future
Expansion

**Cristina Hernandez Diaz and
Jesus Villalobos**

Mentored by Brigitte Dauwalder
Biology and Biochemistry
Effects of Ecdysone Receptor Isoform
A1 on Courtship Behaviour in
Drosophila melanogaster

**Chemeziem Iwuji, Joyce Joy,
Jyothylakshmi Manoj,
Laura Miranda-Vargas,
John Richards, and Jean Yoo**

Mentored by Andrew Kapral and Daniel
Price
Honors, Data and Society
Assessing Access to Essential
Community Resources via METRO
Buses and Walking in Houston

Faria Javed and Elyse Tran

Mentored by Janet Lawler
Honors, Political Science
Identifying and Analyzing Services
Provided by Women's Shelters in
Harris County

**Saarangi Kaimal, Tran Lam,
and Soraya Sato**

Mentored by Janet Lawler and Bradley H.
Smith
Honors, Political Science; Psychological,
Health, and Learning Sciences
Boosting Mentor and Mentee Self-
Efficacy Through Science Mentorship
in the Science Mentoring to Achieve
a Richer Tomorrow (SMART) Program

**Ryan Lester, Mia Lukenbill,
and Sally Nguyen**

Mentored by Quinn Valier and Cori Grant
UH Population Health; Sociology
Urban Heat and Human Health:
Impacts, Adaptation, and Equity in
the United States

**Victor Luong, Maria Ocampos,
Talha Mojj,**

and Katalin Stubits-Gallagher
Mentored by Yaping Wang
Industrial and Systems Engineering
Facility Exterior Layout Re-Design

**Bereket Mego, Paria Mosaffa,
and Seth Smith**

Mentored by Sergey Shevkoplyas
Biomedical Engineering
Modeling Downstream Effects
of Medium-Chain Acyl-CoA
Dehydrogenase Deficiency on
Fatty Acid β -Oxidation and the
Tricarboxylic Acid Cycle

Brent Milton and Noelle Ramos

Mentored by Erin Kelleher and Lorrissa
Saiz
Biology and Biochemistry
Let's Talk About Bruno: Uncovering
Genetic Differences Responsible
for Variation in Dysgenic Sterility in
Drosophila melanogaster

**Angela Nguyen
and Haley Romine**

Mentored by Chandra Mohan
Biomedical Engineering
Bowman's Capsule Rupture and
Podocyte Loss As Revealed by
Spatial Proteomics Is Correlated to
Histological Activity and Chronicity in
Lupus Nephritis

Lily Nguyen

and Guillermo Vasquez
Mentored by Yi-Chao Chen
Mechanical and Aerospace Engineering
Can MATLAB Plot the Human
Diaphragm?

Lizbeth Perez and Grace Pullin

Mentored by Candice Alfano
Psychology
Melatonin Use Among Children in
Foster Care

**Ayaan Saleem
and Nour Shehata**

Mentored by Craig Johnston and Jessica
M. Kirschmann
Health and Human Performance
Transforming Health Outcomes for
Special Olympic Athletes: A Family-
Centered Approach

Arushi Suji and Yumn Qazi

Mentored by C. Raymond Knee
Psychology
Personality, Materialism, and the
Parent-Child Relationship: A Study of
Alignment and Impact

**Anna-Maria Trabulsi,
Ali Qureshi, and Iman Yousaf**

Mentored by Craig Johnston
Health and Human Performance
Bridging the Gap: How Healthy
Recipes Can Improve Nutrition in
Houston's Third Ward

Charis Wu and Arshiya Yasin

Mentored by Melody Yunzi Li and
Guadalupe San Miguel, Jr.
Modern and Classical Languages; History
Mapping Houston's Old Chinatown





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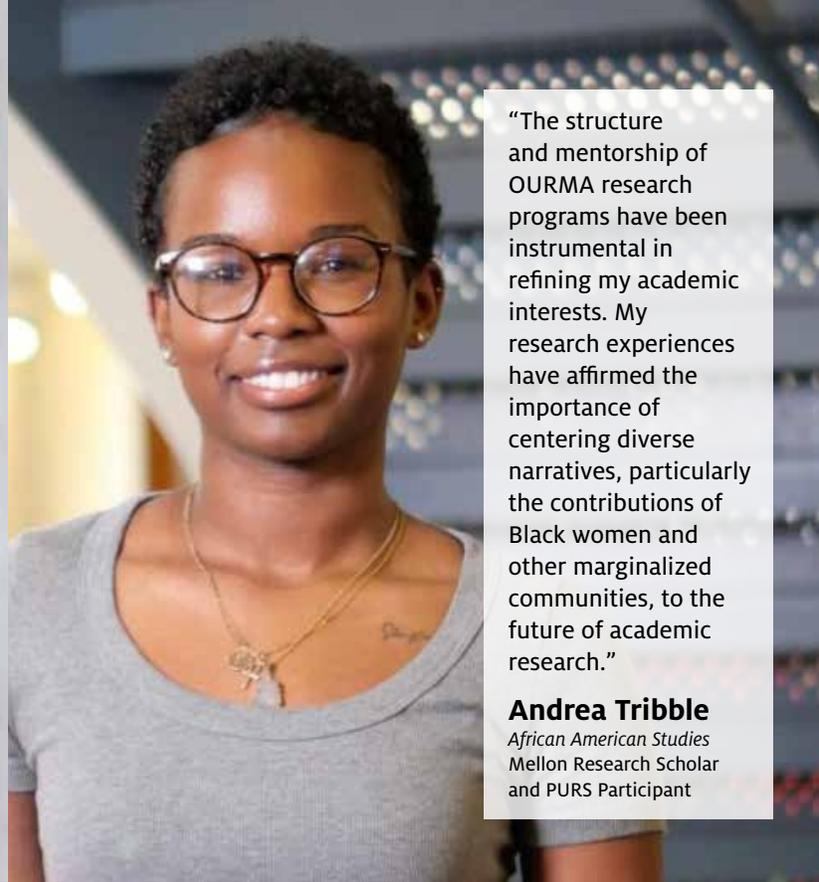
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“The opportunities to engage in hands-on research and be a part of developing award-winning technology to solve real-world battery problems with significant safety/efficiency impacts and enhance the renewable energy transition has been truly transformative for me. I really wish I had participated in programs like SURF earlier in my degree plan.”

Tico Hannan
Mechanical Engineering
 Energy Scholars Program,
 PURS, SURF, and Senior
 Honors Thesis Participant



“The structure and mentorship of OURMA research programs have been instrumental in refining my academic interests. My research experiences have affirmed the importance of centering diverse narratives, particularly the contributions of Black women and other marginalized communities, to the future of academic research.”

Andrea Tribble
African American Studies
 Mellon Research Scholar
 and PURS Participant

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Jonathan Gaucin
Electrical Engineering
 HERE Participant



“My experience with SURF has given me a preview of the rigor and dedication required to conduct and execute research in graduate school. I highly recommend this opportunity to all undergraduate students who are curious about pursuing a higher degree or beginning a career in research and development. It has been incredibly fulfilling and instills strong foundations for a pioneering scientist.”

Toni Ramos
Environmental Science
 SURF Participant

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