

36th ANNUAL UNDERGRADUATE BIOLOGY RESEARCH PROGRAM (UBRP) CONFERENCE

January 25, 2025 | Environment & Natural Resources 2 Bldg. | 1064 E. Lowell St.

EVENT SCHEDULE

8:00am

CHECK IN

Courtyard

- Event information for visitors available at the Welcome Table
- Students set up their posters

8:30 – 9:30am

KEYNOTE ADDRESS

Room N120

- Welcome & Acknowledgements by Jennifer Cubeta, UBRP Director
- Introduction of Keynote Speaker by Dr. Michael Deyholos
- Keynote Address: “The Journey of Science, Medicine, and Life: Get Out of Your Own Way!” by Dr. Hardeep Phull, MD, UBRP/BRAVO! Alumnus, Director of the Oncology & Infusion Program at Palomar Health, and Board Member of the Palomar Health Foundation
- Conference Logistics

9:30am – 11:30am

STUDENT POSTER SESSIONS

Ground Floor: Room S107

Second Floor: Rooms S210, S215, S223, S225, & 230

- Odd-numbered posters present from 9:30 - 10:30am
- Even-numbered posters present from 10:30 - 11:30am
- Light refreshments available in Slot Canyon Café
- 50-50 raffle tickets available for purchase at Hospitality Table in the Slot Canyon Café until 11:15am

11:30am – 12:00pm

RECOGNITION, AWARDS, AND CLOSING REMARKS

Room N120

- Recognition of Graduating Seniors
- Recognition of UBRP Ambassador Co-Chairs
- Recognition of BRAVO! Participants
- Recognition of Outstanding Mentor Award Nominees
- Presentation of Outstanding Mentor Awards
- Announcement of 50-50 Raffle Winner

WELCOME!



Dear Guests:

Welcome to the 36th Annual Undergraduate Biology Research Program (UBRP) Conference! This is an exciting day where I hope you will enjoy learning about the wide world of biology and our students' research accomplishments.

119 University of Arizona undergraduates participated in paid research experiences through UBRP in Summer 2024, and these students, plus additional undergraduate researchers from UA, will be presenting their research to you today. These young scientists have been researching a diversity of topics, including language development in toddlers, how skin cells transform into cancer cells, improvements in tissue optics, the role of iron in biological processes in soil, the impact of the gut microbiome on obesity, lemur behavior, transportation inequities through crash data, the usage of microbes as fertilizer for agricultural crops, the impact of regulatory proteins upon the virulence of *C. difficile*, the intricacies of the aging process using worms, and many other topics in the biological sciences! I invite you to be curious, ask lots of questions, and enjoy marveling at the wonders of science as our students share with you their research accomplishments and their academic journeys.

Be prepared to be infused with enthusiasm and inspiration! Thank you for joining us today in celebrating our students and all of those who support them.

Enjoy the Conference!

A handwritten signature in black ink that reads "Jennifer Cubeta". The signature is fluid and cursive.

Jennifer Cubeta, M.Ed.
UBRP & BRAVO! Director

ACKNOWLEDGEMENTS

UBRP is made possible by the financial support of University of Arizona contributors, grant awards, and donors. We are deeply grateful to the following for their generous support:

At the University of Arizona:

- **Office of the Provost** - Ronald Marx, Interim Provost
- **Office of Research, Innovation, & Impact** - Tomás Díaz de la Rubia, Senior Vice President for Research
- **BIO5 Institute** - Jennifer Barton, Director
- **College of Science** - Carmala Garziona, Dean
- **College of Medicine-Tucson** - Michael Abecassis, Dean
- **R. Ken Coit College of Pharmacy** - Rick Schnellmann, Dean
- **Data Sciences Academy** - Joe Watkins, Director
- **Arizona Institute for Resilience** - Kevin Bonine, Director of Education Initiatives and Maria Sohn Hasman, Program Coordinator for the RISE Internship Program

Granting Agencies:

- **American Society for Pharmacology & Experimental Therapeutics (ASPET)** for the ASPET Summer Undergraduate Research Fellowship Program
- **Arnold and Mabel Beckman Foundation** for the Beckman Scholars Program
- **National Cancer Institute** for the Partnership for Native American Cancer Prevention (NACP) Program
- **National Institute of Environmental Health Sciences** for the Environmental Health Sciences – Research for Indigenous Student Engagement (EHS-RISE) Program and the Environmental Health Sciences - Transformative Research Undergraduate Experience (EHS-TRUE) Program
- **National Library of Medicine** for the Place-based Health Informatics Research Education (PHIRE) Program

Thank you to our UBRP Advisory Board Members:

*John Szivek (Chair) • Carol Bender (Emerita) • Nathan Ellis • Teri Suzuki
Samantha Szuter • Doug Wellington • Ken Wertman*

Thank you to our wonderful UBRP and BRAVO! donors:

Amgen - Matching Gifts • Dr. Craig Aspinwall & Ms. Catherine Aspinwall • Dr. David Bellows & Dr. Alison Bailin • Prof. Carol Bender • Dr. John Biebelhausen & Ms. Amanda Biebelhausen • Dr. Margaret Briehl & Dr. Dennis Ray • Dr. Gail Burd & Dr. John Hildebrand • Ms. Elizabeth Camus • Ms. Roxie Catts • Mrs. Huyen Chilton & Mr. Daniel Chilton • Dr. Rita Cook & Dr. Robert Cook, for the Nokes-Cook UBRP Endowment • Mrs. Jennifer Cubeta • Mr. Kevin Decker, in honor of Lauren Decker • Mr. Richard Edelman & Mrs. Sharon J. Vogelsang • Dr. John Enemark & Mrs. Mary Enemark • Dr. Jeffrey Frelinger • Dr. Brenda Gardner • Mr. Mario Gastelum • Dr. Vijay Gokhale • Dr. Marilyn Halonen • Dr. James Hazzard & Mrs.

Norma Hazzard, in memory of Dr. Marc Tischler • Dr. Xi He & Mr. Heng Yuan • Dr. David Johnson • Ms. Susan Kaleita & Mr. John Moeller • Dr. Paul Klekotka & Mrs. Kimberly Klekotka • Dr. Christina Kochel • Dr. Denise Krawitz • Dr. Michael Kuhns • Mr. Jeffrey LoCascio • Ms. Carole Malan & Dr. Timothy Malan • Mr. Brian Massey & Dr. Megan O'Meara • Ms. Sharon Matlock & Mr. Peter Matlock • Ms. Amy Meredith & Mr. Todd Meredith, in memory of Audrey Holland • Ms. Amanda Moon • Dr. Michael Nelson & Ms. Kristin Nelson • Mr. Aryan Pandey • Regeneron Pharmaceuticals, Inc. – Matching Gifts • Dr. Jennitte Stevens • Dr. Daryn Stover • Mr. Benjamin Super & Mrs. Jill Lieberman-Super • Dr. Anne Suzuki & Mr. Scott Creasman, in honor of Dr. Teri C. Suzuki • Dr. Teri Suzuki & Mr. Oleg Lysyj, for the Natalie Lysyj UBRP Endowment • Dr. John Szivek & Ms. Sally Szivek • Ms. Samantha Szuter • Dr. Ronald Teed • Dr. Kenneth Teter • Dr. Allison Titcomb • Anna Trieller • Mr. Dale Vernon • Mr. Dana Weant & Dr. Melanie De Boer • Dr. Guang Yao • Dr. Jessica Yingling & Mr. Christopher Mahoney • Dr. Benjamin Zaepfel

TODAY'S ACTIVITIES

WELCOME AND KEYNOTE ADDRESS | 8:30 – 9:30am | Room N120



The Journey of Science, Medicine, and Life: Get Out of Your Own Way!

by Hardeep Phull, MD

UBRP/BRAVO! Alumnus, Director of the Oncology & Infusion Program at Palomar Health, and Board Member of the Palomar Health Foundation

*Introduction of Keynote Speaker by Dr. Michael Deyholos,
Professor of Biology and Biotechnology, University of British Columbia*

Hardeep's passion for cancer care began at the University of Arizona, where he laid his foundations while volunteering at the VA hospital where his mother was an oncology nurse. While working in a Plant Sciences lab with Dr. David Galbraith and Dr. Mike Deyholos, the highlight of his undergrad experience was a culturally fulfilling research fellowship abroad in Poland, funded by the NIH and the BRAVO! program. He then spent 3 years in a Urology lab at University Medical Center (now known as Banner) before he was humbled to be selected by a prestigious Physician-Scientist program at the Cleveland Clinic Lerner College of Medicine (CCLCM).

At CCLCM, he received world class scholarship and mentorship and came "full circle" in his interest and talents for Oncology. Following medical school, Dr. Phull pursued a unique Physician Scientist training program at Scripps as a KL2 funded Clinical Scholar, where he also obtained a Master's Degree in Clinical Investigation while working on novel CAR-T cell therapies. He culminated his education with a fellowship in Hematology/Oncology at the University of California

San Diego (UCSD), where he reignited his greater passion and purpose for patient care and education, and was selected as the Chief Fellow.

His clinical expertise as a community oncologist in San Diego extends to a wide variety of hematologic and oncologic disorders, and he constantly strives to contribute to the field with over 22 peer-reviewed publications, 37 scientific abstract and oral presentations, 83 editorial pieces, 48 media appearances, and multiple awards including first-place finishes at 3 national scientific poster competitions. Currently, Dr. Phull is the Director of the Oncology and Infusion program at Palomar Health (PH) in San Diego and a Board Member of the Palomar Health Foundation (PHF). He also serves as Alumni Specialty Director at CCLCM and as a Clinical Instructor at UCSD.

Dr. Phull views his ongoing journey as a series of unbelievable experiences that have enabled him to appreciate different values, cultures, and viewpoints while establishing a track record of excellence across multiple institutions. He remains committed and highly involved in education, mentorship, leadership, and advocacy in the San Diego community, frequently referenced on social media, television, newspapers, and podcasts related to these interests. This has allowed him to fulfill his initial calling to be a compassionate and caring clinician, advocating for deeply-rooted principles of empathy, humility, dignity, and empowerment towards patients and colleagues. In his free time, he enjoys piloting planes, sailing, writing, sports, movies, travel, and spending time with his wife and two daughters.

STUDENT POSTER SESSIONS | 9:30 – 11:30am | *Ground Floor & Second Floor*

Students will present in Room S107, located on the ground floor, and the following rooms located on the second floor: S210, S215, S223, S225, & 230. Odd- numbered posters will be presented from 9:30 – 10:30am; even-numbered posters will be presented from 10:30 – 11:30am.

Our students are excited to share their research with you! We invite our visitors to be curious and to ask questions such as “*Could you walk me through your poster? What are future directions for your project? What excites you about doing research? What is the ‘take home’ message from your project?*”

For your convenience, the UBRP Conference webpage, <https://ubrp.arizona.edu>, has a **Topical Guide to UBRP Conference Posters**, a list of **Student Presenters**, and a full **List of Abstracts**.

Light refreshments and 50-50 raffle tickets will be available in the Slot Canyon Café during this time.

RECOGNITION & AWARDS | 11:30am – 12:00pm | *Room N120*

CONGRATUATIONS TO OUR GRADUATING SENIORS!

Congratulations to UBRP seniors who will be graduating in 2025! To celebrate all they have accomplished through our program, seniors will receive a teal UBRP graduation cord in March

(information will be forthcoming by email). Seniors, we wish you all the best for the future and look forward to receiving updates about your post-graduation positions and accomplishments.

UBRP AMBASSADORS

UBRP Ambassadors help build community among undergraduate researchers and serve as representatives for the UBRP program through organizing field trips and social activities, speaking to on- and off-campus groups, and participating in outreach and volunteer activities. We thank all of our 2024-2025 UBRP Ambassadors for their service!

Committee Chairs:

Gavin Arnold, Bhargav Ghosh, Kaitlyn Lai, Maya Leonard, Vijetha Logaprabhu, Adithi Peedoly, Orli Sanyal, and Aruna Sreenivasan

Special Thanks To:

Ade Ajayi, Abby Cassius, Sam Ellis, Noah Frazier, Claire Nielson, Ava Pal, Marlie Nochomovitz, Ishnoor Sandhu, Jake Shaw, and Jaden Todd-Nelson

BIOLOGY RESEARCH ABROAD: VISTAS OPEN! (BRAVO!) PARTICIPANTS

Summer 2024:

Ariel Heinrich – University of Birmingham, United Kingdom

Elissa Schiff – University of Sydney, Australia

Erin Schuette – University of Copenhagen, Denmark

Summer 2025:

Bhargav Ghosh – Institut Pasteur, Paris, France

Arpita Gulati – University College Cork, Ireland

Nandini Manepalli – University of Bristol, United Kingdom

Aruna Sreenivasan – University of Glasgow, United Kingdom

UBRP OUTSTANDING MENTOR AWARDS

Each year, we celebrate the University of Arizona's supportive culture for undergraduate research and the outstanding mentorship UBRP students enjoy by recognizing faculty and supporting scientists with Outstanding UBRP Mentor Awards. Candidates are nominated by current UBRP students and UBRP alumni. A committee composed of UBRP students and alumni reviews the nominees and selects the finalists.

Nominees for the 2024-25 UBRP Outstanding Mentor Awards:

Scott Boitano

Nominated by Truc Le

Samuel Campos

Nominated by David Kosanke

Ryan Gutenkunst

Nominated by Olivia Fernflores

Lisa Nagy

Nominated by Connor Carney

Patrick Shipman

Nominated by Nisa Aliyeva

John Streicher

Nominated by Claire Nielson

Mark Sundman

*Nominated by Gavin Arnold, Cat Jezerc, and
Kaitlyn Lai*



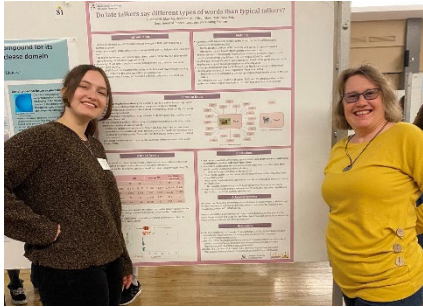
2024-2025

UBRP Outstanding Graduate Student Mentor

SAHANA SRIVATHSA

Graduate Student, Neuroscience

Nominated by Victoria Garza & Mia Sponseller



2024-2025

UBRP Outstanding Faculty Mentor

MARY ALT

Professor & Head
Speech, Language, and Hearing Sciences

Nominated by Elissa Schiff



2024-2025 UBRP-PHIRE Mentor of the Year

ALYSSA RYAN

Assistant Professor
Civil and Architectural Engineering and Mechanics

Nominated by Juliana Panhorst

*Thank you to all of our mentors, for your commitment and dedication
to our undergraduate researchers!*

2024-25 UBRP PARTICIPANTS AND FACULTY MENTORS

The programs housed within the Undergraduate Biology Research Program (UBRP) are designed to teach students science by involving them in biologically related research. Students are paid for their time doing research where they develop an understanding of the scientific method and receive a realistic view of research. They also participate in professional development workshops, scientific seminars, and supplementary activities to acquire the tools necessary to be successful in post-graduate studies should they choose careers related to biology or biomedical research, and they join the community of scholars.

UNDERGRADUATE BIOLOGY RESEARCH PROGRAM (UBRP)

Funding for UBRP students is provided by private donors, the Arizona Office of the Provost, Office of Research, Innovation, & Impact, BIO5 Institute, the Arizona Institute for Resilience (RISE Internship Program), and the Colleges of Medicine, Science, and Pharmacy. The UBRP Office is administratively supported by the Department of Molecular and Cellular Biology.

| <u>Student</u> | <u>Mentor(s)</u> |
|-----------------------|--------------------------------|
| Adeoluwa Ajayi | Ingmar Riedel-Kruse |
| Mohima Ali | Elena Plante |
| Gagana Ameneni | Alicia Allen |
| Gavin Arnold | Ying-Hui Chou |
| Kirbi Austin | Megan Corty |
| Malcolm Barrios | Elizabeth Hutchinson |
| Daveena Biswas | Michael Marty |
| Connor Carney | Lisa Nagy |
| Branham Carpenter | George Sutphin |
| Abigail Cassius | Kelly Reynolds |
| Sean Chen | Michael Brown |
| Kanishka Chinnaraj | Stephen Cowen |
| Deanna Clinch | Christopher Banek |
| Sydney Cupisz | Guang Yao |
| Nancy Elnady | Deepta Bhattacharya |
| Noah Frazier | Aneta Kielar |
| Bhargav Ghosh | Gayatri Vedantam |
| Annika Giphart | Paul Langlais |
| Sara Harader | Arne Ekstrom |
| Emily Herrera | Alonso Favela |
| Ciara Himes | David Baltrus |
| Rebekah Hubble | Frank Duca |
| Vidya Iyer | Rebecca Mosher |
| Emily Jamboretz | Felicia Goodrum |
| Catherine Jezerc | Ying-Hui Chou |
| Yvonne Kan | Alonso Favela |
| Dani Khatib | Deepta Bhattacharya |
| Dae-Kyung Kim | Christopher Banek & Megha Padi |
| Kaylee Kimbrell | Sean Limesand |

| Student | Mentor(s) |
|----------------------|-----------------------------|
| David Kosanke | Sam Campos |
| Kaitlyn Lai | Ying-Hui Chou |
| Sanvi Lamba | Lee Ryan & Sean Limesand |
| Alex Lanthiez | Shanna Hamilton |
| Truc Le | Scott Boitano |
| Maya Leonard | Todd Schlenke |
| Sabrina Liu | Nancy Horton |
| Vijetha Logaprabhu | Lee Ryan & Erika Eggers |
| Gamaliel Luna | Martha Bhattacharya |
| Joshua Mahar | Michael Taylor |
| Joseph Mancuso | John Streicher |
| Ella Marshall | Melville Wohlgemuth |
| Esha Mathur | Julie Armin |
| Jesus Mendoza Garcia | Elizabeth Hutchinson |
| Akshay Menghani | Katherine Rhodes |
| Jasmine Meredith | Lalitha Madhavan |
| Amelia Mitchell | Ross Buchan |
| Tyler Montgomery | Lalitha Madhavan |
| Michael Mroz | George Sutphin |
| Gabriel Neal | Katalin Gothard |
| Marlie Nochomovitz | Paulo Pires |
| Ava Pal | Katalin Gothard |
| Aryan Pandey | Jeong-Yeol Yoon |
| Adithi Peedoly | Rebecca Schomer |
| Esther Qiu | Kristian Doyle |
| Zainab Ramadan | Scott Boitano |
| Tyler Reese | Katrina Dlugosch |
| Alyssa San Agustin | Ken Liechty |
| Ishnoor Sandhu | Anne Cress |
| Orli Sanyal | Michael Worobey |
| Sanjana Shahreen | Nancy Horton |
| Kritika Singh | Samantha Harris |
| Jordan Singleton | Rachel Gallery |
| Hariti Soni | Nancy Horton |
| Mia Sponseller | Carol Barnes |
| Aruna Sreenivasan | Anita Koshy |
| Jaden Todd-Nelson | Anita Koshy |
| Ethan Tonthat | Nancy Horton |
| Victor Vigbedorh | Ulises Ricoy |
| Tu Vo | Paul Carini |
| Katrina Vollmer | Gregory Thatcher |
| Paige Wagstaff | Stacey Tecot |
| Elaina Wait | George Sutphin |
| Bryce Wilson | Michael Kruer & Andrew Paek |
| Abby Wolf | Gregory Thatcher |
| Charles Zhang | Ross Buchan |

Additional students from UBRP research groups presenting today:

| <u>Student</u> | <u>Mentor</u> |
|-----------------------|------------------------------|
| Megan Dowd | Pascale Charest |
| Peter Goodman | Joanna Masel |
| Arena Haught | Elena Plante |
| Shea Hollis | Lisa Nagy |
| Nikhil Johnson | Frank Duca |
| Kayla Jones | Sima Ehsani & Lauren Maynard |
| Joshua Lederman | Joyce Schroeder |
| Nandini Manepalli | Joanna Masel |
| Kathryn Panferov | Rebecca Mosher |
| Shruthi Sadhasivam | Pascale Charest |
| Salehah Shabazz | Julie Armin |
| Jeremiah Shankar | Lisa Nagy |
| Caroline Vasquez | Lisa Nagy |

**AMERICAN SOCIETY FOR PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS
SUMMER UNDERGRADUATE RESEARCH FELLOWSHIP (ASPET SURF)**

The ASPET SURF Fellowship, funded by a grant from the American Society for Pharmacology and Experimental Therapeutics, supports five undergraduate students per year to conduct research under the mentorship of Arizona faculty who are members of ASPET. The program's goal is to introduce undergraduate students to pharmacology research using authentic, mentored research experiences to heighten student interest in careers in research and related health care disciplines.

| <u>Student</u> | <u>Mentor</u> |
|-----------------------|----------------------|
| Chenyue "Chris" Fan | John Streicher |
| Arpita Gulati | Abhijit Date |
| Claire Nielson | John Streicher |
| Nguyen "Tom" Pham | Abhijit Date |
| Josue Sarmiento | Frank Porreca |

BECKMAN SCHOLARS PROGRAM

The Beckman Scholars Program is designed to help stimulate, encourage and support research activities by exceptionally talented undergraduate students at U.S. universities and colleges. The Beckman Scholarship at the University of Arizona provides funding for students to conduct in-depth research with one of 11 stellar research mentors in Arizona's College of Science. Funding for this program is provided by the Arnold and Mabel Beckman Foundation.

| <u>Student</u> | <u>Mentor</u> |
|-----------------------|----------------------|
| Olivia Fernflores | Ryan Gutenkunst |
| Isaac Kailat | Michael Marty |
| Micaila Marcelle | Joanna Masel |
| Douglas Swango | Pascale Charest |

BIOLOGY RESEARCH ABROAD: VISTAS OPEN! (BRAVO!)

The BRAVO! Program supports University of Arizona undergraduates in gaining a global perspective through a summer research experience abroad. BRAVO! enhances participants' scientific and professional skills and encourages the development of international collaborative relationships, through independent and immersive experiences as participants live and conduct research in a foreign country. Funding for BRAVO! is provided by private donors. Summer 2024 participants are:

Ariel Heinrich

Mentored by

David Baltrus, University of Arizona
Willem Van Schaik, University of Birmingham, United Kingdom

Elissa Schiff

Mentored by

Mary Alt, University of Arizona
Sarah Masso, University of Sydney, Australia

Erin Schuette

Mentored by

Jared Churko, University of Arizona
Julien Ochala, University of Copenhagen, Denmark

DATA SCIENCES ACADEMY (DSA)

DSA is an initiative to mobilize researchers across disciplinary boundaries who share a passion for data science, to deepen partnerships with both industry and government agencies, and to challenge students at all degree levels to explore new, innovative domains of expertise, to ensure the nexus between research and education is captured. Support for DSA's summer research positions is provided by the Office of the Provost.

Student

Ashiqul Alam
Nisa Aliyeva
Victoria Garza
Sam Gibbon
Ian Gold
Somto Ike
Lilith Kotler
Natalie Rawlings
Caitlin Ruhland
Victor Sandrin

Mentor(s)

Melville Wohlgemuth
Patrick Shipman
Carol Barnes
Ryan Gutenkunst
Philipp Gutruf
Jennifer Barton & Ghassan Mouniemne
Ryan Gutenkunst
Andrew Capaldi
Jennifer Barton
Elizabeth Hutchinson

**ENVIRONMENTAL HEALTH SCIENCES -
RESEARCH FOR INDIGENOUS STUDENT ENGAGEMENT (EHS-RISE)**

EHS-RISE, funded by the National Institute of Environmental Health Sciences grant #1-R25-ES34923-01 (Qing-Yu Zhang, Principal Investigator), is an introductory, full-time, and residential summer research program which aims to increase the representation of Native Americans in the STEM workforce, while supporting students' cultural identity.

| Student | Mentor(s) |
|----------------|--------------------------------|
| Jariah Callado | Paloma Beamer & Cherie De Vore |
| Kodi Emerson | Jeff Burgess |
| Taylor Massey | Zelieann Craig |
| Leila Yazzie | Cherie De Vore |

**ENVIRONMENTAL HEALTH SCIENCES -
TRANSFORMATIVE RESEARCH UNDERGRADUATE EXPERIENCE (EHS-TRUE)**

EHS-TRUE, funded by the National Institute of Environmental Health Sciences grant #1-R25-ES025494 (Yin Chen, Principal Investigator), provides students from underrepresented backgrounds with two years of paid training and research experience in an environmental health sciences research laboratory. The goal of EHS-TRUE is to enhance the competitiveness of our undergraduates for post-baccalaureate education in the environmental health sciences.

| Student | Mentor |
|------------------|----------------|
| Vivianna Metzler | Zelieann Craig |
| Talia Owen | Zelieann Craig |
| Viviana Romero | Zelieann Craig |
| Melisa Smith | Yin Chen |

PARTNERSHIP FOR NATIVE AMERICAN CANCER PREVENTION (NACP)

The Partnership for Native American Cancer Prevention (NACP) is a collaboration between Northern Arizona University and the University of Arizona's Cancer Center. The mission of the NACP is to alleviate the unequal burden of cancer among Native Americans of the Southwest through research, training and community outreach programs in collaboration with the communities they serve. The Training Core of NACP at the University of Arizona is led by Dr. Jennifer Bea, and funding for NACP is provided by the National Cancer Institute Grant #2U54CA143924.

| Student | Mentor(s) |
|------------------|----------------------------|
| Tristan Cummings | Francine Gachupin |
| RueShunda Jim | Elise Erickson |
| Halie Tewa | Robin Harris & Julie Armin |

PLACE-BASED HEALTH INFORMATICS RESEARCH EDUCATION (PHIRE)

Place-based Health Informatics Research Education (PHIRE) is a research training initiative for undergraduate students who are (a) currently enrolled or transferring to the University of Arizona, (b) interested in biomedical research, and (c) looking to pursue graduate education in areas related to health informatics. PHIRE offers an intensive, paid research experience for 12 weeks in summer (plus part-time in Fall), followed by a tailored thematic minor in health informatics. This program is supported by the National Library of Medicine (NLM) of the National Institutes of Health under award number R25LM01422. PHIRE is institutionally supported, in part, by the BIO5 Institute, Office of HSI Initiatives, & the Undergraduate Biology Research Program (UBRP) at the University of Arizona.

| <u>Student</u> | <u>Mentor(s)</u> |
|----------------------------|--------------------------------|
| Ryenne Belt | Jennifer Andrews |
| Jessica Cruz | Fiona McCarthy |
| Alvaro Cruz Perez | Elizabeth Hutchinson |
| Sam Ellis | Michael Taylor |
| Waldo Guzman Barrientos | Megha Padi |
| Isabella Irby | George Sutphin |
| Cassandra Montano Arellano | Malak Tfaily |
| Emeral Norzagaray | Vignesh Subbian |
| Juliana Panhorst | Alyssa Ryan |
| Brandon Rodriguez | Jean-Marc Fellous & Tzuyin Lai |
| Jake Shaw | Elisa Tomat |

We are also excited for the following students from the Diversity in Cancer Research and Maximizing Access to Research Careers Programs to join us in presenting their posters today.

DIVERSITY IN CANCER RESEARCH (DICR)

The DICR internship, funded by the American Cancer Society, is an immersive paid 10-week research opportunity through the University of Arizona Cancer Center. Students are matched with an established researcher at the Cancer Center to complete a research project during the program. They are a part of a unique cohort of students interested in pursuing a master's or doctorate degree in the health sciences and provided with professional development classes, conference experiences and social events.

| <u>Student</u> | <u>Mentor</u> |
|-----------------------|----------------------|
| Adrian Bernal-Rios | Cindy Miranti |
| Arrianna Bienes | Alicia Allen |
| Andrea Hernández | Wei Wang |
| Kaitlyn McKnight | Shang Song |
| Sofia Orrantia | Jennifer Carew |

MAXIMIZING ACCESS TO RESEARCH CAREERS (MARC)

The MARC Program is a unique two-year research, mentoring, financial and academic opportunity for undergraduates belonging to a group considered underrepresented in biomedical research and who have the interest and potential to pursue a PhD or combined PhD degree (e.g. MD/PhD).

Student

Leili Asgharzadeh Falbinan
Delina Denogean
Marc Garcia
Riley Haveman
Dylan Hermsillo
Caleb Konecek
Kayma Konecny
Ika Lin
Cassidy Little
Tyler Martinez
Gwendolyn McKay
Avril Perez
Paige Wene
Mozani Zianti

Mentor

Elizabeth Hutchinson
Joyce Schroeder
Joyce Schroeder
Todd Vanderah
Bonnie Hurwitz
Pascale Charest
Dongkyun Kang
John Jewett
Elizabeth Hutchinson
Michael Marty
Catharine Smith
Sam Campos
Lalitha Madhavan
Elizabeth Hutchinson