

SRP CONFERENCE

20 UNDERGRADUATE

22 RESEARCH CENTER

OXY Occidental
College



Welcome!

Dear Summer Research Conference Attendees,

On behalf of the Occidental College Undergraduate Research Center, it is my pleasure to welcome you to our annual Summer Research Program Conference. We are proud to recognize the achievements of our 2022 cohort who, with guidance from their mentors, have spent the last ten weeks immersed in independent research or creative projects.

Undergraduate research is a signature component of the Occidental College education, and faculty-mentored research activities at the College can be traced back to the 1950s. In order to expand and support faculty-mentored research, a centralized Undergraduate Research Center (URC) was established in 1998. Under the guidance of the founding director, Dr. Chris Craney, the first Occidental College Summer Research Program (SRP) was held the following summer.

Occidental's commitment to building a community of scholars and providing a forum for them to showcase their achievements stems from the conviction that such activities play a critical role in advancing student learning and personal development. Undergraduate research at Occidental allows our students to take an active role in their own education and encourages them to apply and challenge what they are taught in the classroom.

Thank you for joining us at today's conference. We encourage you to visit the poster sessions and attend as many talks as possible to get a full sense of the spirit of the program and the scope of our student's interests and achievements.

Congratulations to our student presenters and best wishes to everyone for an enriching day!

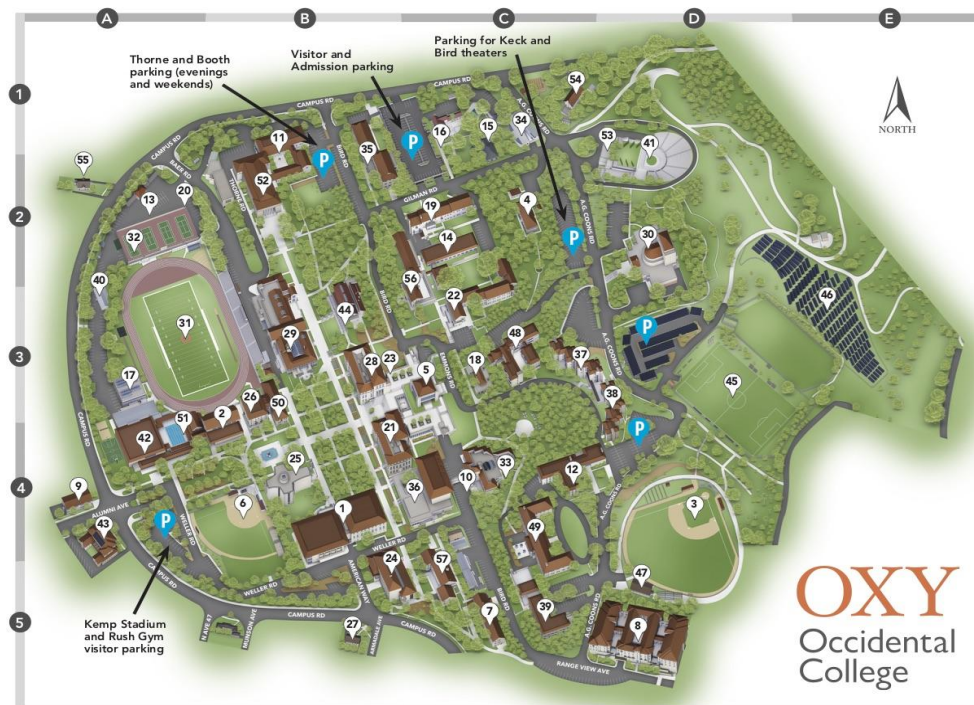
Sincerely,

A handwritten signature in black ink that reads "Clair Morrissey". The signature is written in a cursive, flowing style.

Dr. Clair Morrissey
Director, Undergraduate Research Center
Associate Professor, Department of Philosophy

Schedule of Events • August 3, 2022

8:30-9:00 AM	Registration Quad (South)
9:05 – 9:15 AM	Welcome: Dr. Clair Morrissey (Philosophy, URC) Choi Auditorium
9:15 – 10:15 AM	Keynote Address: Dr. Shana Goffredi (Biology) <i>Extreme Alliances: Relationships between marine animals and bacteria</i> Choi Auditorium
10:30 – 11:15 AM	Session One (Talks) Fowler Hall
11:25 AM – 12:10 PM	Session Two (Talks) Fowler Hall
12:10 – 1:10 PM	Lunch Thorne Hall Patio
1:15 – 2:00 PM	Session Three (Posters) Academic Commons, Third Floor
2:10 – 2:55 PM	Session Four (Talks) Fowler Hall
3:05 – 3:50 PM	Session Five (Posters) Academic Commons, Third Floor
4:00 – 5:00 PM	Session Six (Talks) Fowler Hall
5:00 – 5:30 PM	Reception & Installation: Frannie DiBona ('23) Gilman Fountain <i>What Are You Eating?</i> Swan III
5:30 PM	Film Screening: Joaquín Madrid Larrañaga ('23) <i>All That Could Have Been</i> Choi Auditorium



	NUMBER	GRID		NUMBER	GRID		NUMBER	GRID
Academic Commons/ Mary Norton Clapp Library	1	B4	Haines Hall	22	C3	Remsen Bird Hillside Theater	41	D1
Alumni Gym Fitness Center	2	B4	Hameetman Career Center	23	B3	Rush Gymnasium	42	A4
Anderson Field	3	D4	Hameetman Science Center	24	B5	Samuelson Alumni Center	43	A4
Annenberg President's House	4	C2	Herrick Memorial Chapel and Interfaith Center	25	B4	Samuelson Campus Pavilion/ Tiger Cooler	44	B3
AGC Administrative Center	5	C3	Hinchliffe Hall	26	B3	Soccer Fields	45	D3
Bell Field	6	B4	Intercultural Community Center	27	B4	Solar Array	46	E3
Bell-Young Hall	7	C5	Johnson Hall/Choi Auditorium	28	B3	Spencer Field House	47	D5
Berkus Hall	8	D5	Johnson Student Center and Freeman College Union	29	B3	Stearns Hall	48	C3
Berkus House	9	A4	Keck Theater	30	D2	Stewart-Cleland Hall	49	C4
BioScience Building	10	C4	Kemp Stadium/Patterson Field/ Henry Track	31	A3	Swan Hall	50	B3
Booth Music and Speech Center	11	B1	McKinnon Family Tennis Center	32	A2	Taylor Pool	51	A4
Braun Hall	12	C4	Moore Laboratory of Zoology	33	C4	Thorne Hall	52	B2
Campus Safety	13	A2	Mullin Family Studio and Art Gallery	34	C1	Treehouse Building	53	D1
Chilcott Hall	14	C2	Newcomb Hall	35	B2	Urban and Environmental Policy Institute	54	C1
Child Development Center	15	C1	Norris Hall of Chemistry	36	C4	Upward Bound	55	A2
Collins House/Office of Admission	16	C1	Norris Residence Hall (North)	37	C3	Weingart Center for the Liberal Arts	56	B2
Culley Athletic Facility	17	A3	Norris Residence Hall (South)	38	D3	Wylie Hall	57	C5
Emmons Wellness Center	18	C3	Pauley Hall	39	C5			
Erdman Hall	19	C2	Psychology Laboratory	40	A3			
Facilities Management	20	A2						
Fowler Hall	21	B4						

Parking

LOCATIONS:

- **Registration and name tag distribution:** Located in the Academic Quad near the Academic Commons Main Entrance, #1 on the map.
- **Oral Presentations** will be held in Fowler Hall, #21 on the map
- **Poster Presentations** will be held on the 3rd floor of the Academic Commons, #1 on the map
- **Keynote Speaker** will be at Choi Auditorium, #28 on the map
- **Lunch** will be served at Thorne Patio, in front of Thorne Hall, #52 on the map
- **The Reception** will be held at Gilman Fountain, between Herrick, #25 and Hinchliffe Hall, #26 on the map

Keynote Address • Choi Auditorium, 9:15 AM

Extreme Alliances: Relationships between marine animals and bacteria

Dr. Shana Goffredi, Biology Department



Dr. Shana Goffredi is a Professor of Biology at Occidental College. She considers herself an explorer at heart and is committed to uncovering the unique diversity of life on Earth. For 25 years, she has been traveling to the deep ocean, using submersibles, to study cooperative partnerships between bacteria and marine invertebrates. Dr. Goffredi has been involved in the discovery and description of some of the most iconic deep-sea animals to date, including giant deep-sea tubeworms and the yeti crab. These enigmatic symbioses have significantly contributed to biodiversity on our planet by generating new forms (ex. animal organs and tissues), new metabolisms, and even new evolutionary lineages. At Occidental College, she teaches courses on Zoology, Microbial Diversity, and Symbiosis. Dr. Goffredi's funding has come from the National Science Foundation, and she has published in journals such as *Frontiers in Microbiology*, *Environmental Microbiology* and *Science*. Her B.S. is in Biology/Marine Science from the University of San Diego and her Ph.D. is in Ecology, Evolution, and Marine Biology from the University of California Santa Barbara.

Session I (10:30-11:15 AM)

Session I.A: Fowler 111

Moderator: Warren Montag

- 10:30 A Kantian Foodie: on Desserts and Aesthetics
Nora Manukyan
Mentor: Robert Sanchez (Philosophy)
- 10:45 At the Rendezvous of Haiti: History and Revolution in the Thought of C.L.R. James
Matthew Vickers
Mentor: Warren Montag (English)
- 11:00 Mimesis, Materiality, and the Nascent Feminine in John Milton's Paradise Lost
Jane Walker
Mentor: Ross Lerner (English)

Session I.B: Fowler 112

Moderator: Irina Rabkina

- 10:30 Gathering Data for Analogical Theory of Mind
Adrian Manhey
Mentor: Irina Rabkina (Computer Science)
- 10:45 Automatic Recognition of Emotions in Music by Machine Learning Algorithm
Victor Zhu
Mentor: Fabio Paolizzo (Music)
- 11:00 An Interactive and Intelligent Hand Gestural Interface for Djing
Sydney Martinez
Mentor: Fabio Paolizzo (Music)

Session I.C: Fowler 201

Moderator: Susan Geffen

- 10:30 How cognitive reflection shapes children's possibility judgments (Part 1)
Charlotte Harrington
Mentor: Andrew Shtulman (Psychology)
- 10:45 How cognitive reflection shapes children's possibility judgments (Part 2)
Jo Kim
Mentor: Andrew Shtulman (Psychology)

11:00 The Sesame Street Project
Abby McLaughlin
Mentor: Susan Geffen (Psychology)

Session I.D: Fowler 202
Moderator: Sabrina Stierwalt

10:30 Star Clusters in Interacting Dwarf Galaxies
Tehreem Hai
Mentor: Sabrina Stierwalt (Physics)

10:45 The Search for Dwarf Galaxy Clusters
Zelie Goldberg Little
Mentor: Sabrina Stierwalt (Physics)

11:00 Clumpiness of Star Clusters in Merging Dwarf Galaxies
Christopher Swanson
Mentor: Sabrina Stierwalt (Physics)

Session I.E: Fowler 209
Moderator: Jennifer Locke

10:30 Resilience in Chinese America: Contradictions of Immigration, Economic Development, and Cultural Change in the Formation of Community
Nathan Tam
Mentor: Martha Matsuoka (Urban & Environmental Policy)

10:45 Settling In Suburbia: Assimilation and Community Among Chinese Immigrants in Irvine, California
Ray Corpus
Mentor: Jan Lin (Sociology)

11:00 Lighting the Limits: A Media Analysis of Neon Signs as Markers of Marginality
Emily Williams
Mentor: Caroline Heldman (Critical Theory & Social Justice)

Session I.F: Fowler 302
Moderator: Benjamin Weiss

- 10:30 Constructing Disability: Eugenics in the Golden State, 1928-1942
Nina Russell
Mentor: Dolores Trevizo (Sociology)
- 10:45 The Fight Against Violence: Youth Activism Within Anti-Violence Organizations
Mahala Shulman
Mentor: Benjamin Weiss (Sociology)
- 11:00 Eating Behavior of Division III Cross Country Teams
Antigone Lambros
Mentor: Richard Mora (Sociology)

Session I.G: Fowler 309
Moderator: Malek Moazzam-Doulat

Panel: Public Policies and Immigration Rights - Coalition for Humane Immigrant Rights

Alexa Calzada, Olivia Duncan, and Anushka Malhotra
Mentor: Mary Christianakis (Critical Theory & Social Justice)

Session II (11:25 AM-12:10 PM)

Session II.A: Fowler 111
Moderator: Candace Mixon

- 11:25 Justifying Juvenile Justice: Good Faith Decision-Making to Protect Children's Futures
Sela Moretti-Hitchcock
Mentor: Clair Morrissey (Philosophy)
- 11:40 Where We Go One We Go All: Understanding QAnon from a Broader Social Perspective
Olivia Loscavio
Mentor: Heather Lukes (American Studies)
- 11:55 Community Organizing with Friends Of the LA River
Lorenzo Vargas
Mentor: Candace Mixon (Religious Studies)

Session II.B: Fowler 112
Moderator: Alec Arellano

- 11:25 Hate on the Terraces: the Emergence of the Ultra Movement in Europe
Max Craypo
Mentor: Philip Ayoub (Diplomacy & World Affairs)
- 11:40 Battling Impunity and Building Capacity: Incorporating Hybrid Anti-Corruption Agencies into Transitional Justice Processes
Nate Fisher
Mentor: Madeline Baer (Diplomacy & World Affairs)
- 11:55 Global Climate Vulnerability: An Analysis of the United Nations role in achieving Climate Justice
Kel Kline
Mentor: Lan Chu (Diplomacy & World Affairs)

Session II.C: Fowler 302
Moderator: Salvador Fernandez

- 11:25 Pursuing the Trans Film Image
Ethan Dulaney
Mentor: Broderick Fox (Media Arts & Culture)
- 11:40 After #MeToo: Challenging Gender-Based Violence and Abuses of Power in Hollywood
Olivia Greene
Mentor: Broderick Fox (Media Arts & Culture)
- 11:55 Documentary in the Digital Era
Zoey Solomon
Mentor: Broderick Fox (Media Arts & Culture)

Session II.D: Fowler 202
Moderator: Jeffrey Cannon

- 11:25 Oxidative alkene functionalization via photoredox catalysis
Lucien Delgutte
Mentor: Jeffrey Cannon (Chemistry)

- 11:40 Synthesis of Arene- and N-Substituted Isoindolinones for Decarboxylative Coupling
Caroline Arnall
Mentor: Raul Navarro (Chemistry)

Session II.E: Fowler 209
Moderator: Martha Matsuoka

- 11:25 Why Affordable Housing Matters
Deandre Ortiz
Mentor: Martha Matsuoka (Urban & Environmental Policy)
- 11:40 The nature of power: California property taxes and the struggle for cash between LADWP and their customers
Leo Blain
Mentor: Martha Matsuoka (Urban & Environmental Policy)

Session II.F: Fowler 201
Moderator: Ron Buckmire

- 11:25 Numerical Investigations of Nonlinear First-Order Ordinary Differential Equations
Alexis Guevara, Alex Guitierrez Diaz, Johnny Sierra, and Amelia Threatt
Mentor: Treena Basu (Mathematics) & Ron Buckmire (Mathematics)

Session III (1:15-2:00 PM)

Library, Third Floor

Poster #

- 1 Feminine Bodies and Consumption: Female Saints and Ascetic Practices in Tiqqun's Theory of the Young-Girl
Hannah Plummer
Mentor: Kristi Upson-Saia (Religious Studies)
- 2 The Pope and Populism: Locating the Catholic Church in the Global Far Right Through an Analysis of Anti-Gender Movements in Poland, Croatia, and Hungary
Maeve Cassetty
Mentor: Michael Amoruso (Religious Studies)

- 3 The Old Firm: Sectarianism in Scottish Society
Eric DaCosta
Mentor: Michael Amoruso (Religious Studies)
- 4 Behind the Pipe Work: Designing **artworx**LA's Teaching Artist Handbook
Marisa Emoto
Mentor: Frankie Fleming (OxyArts) & Rory Hayes (OxyArts)
- 5 Summer Internship at Clockshop
Raina Pahade
Mentor: Frankie Fleming (OxyArts) & Rory Hayes (OxyArts)
- 6 Community Building in Skid Row
Isabella Ali
Mentor: Martha Matsuoka (Urban & Environmental Policy)
- 7 Engaging with Water Conservation and Community Development in the San Gabriel Valley from a Nonprofit Organization Perspective
Jonathan Fang
Mentor: Martha Matsuoka (Urban & Environmental Policy)
- 8 Affordable Housing in East Los Angeles
Melissa Maldonado
Mentor: Martha Matsuoka (Urban & Environmental Policy)
- 9 The Interconnectedness of Housing, Environment and Transportation
Sunari Weaver-Anderson
Mentor: Martha Matsuoka (Urban & Environmental Policy)
- 10 Building Sustainable Food Systems and Improving Access to Fresh, Healthy Food in Los Angeles
Colleen Easler
Mentor: Jessica Dirkes (Public Health)
- 11 Healthcare Access Barriers and Motivations for Pacific Islanders
Alika Williams
Mentor: Patricia Cabral (Psychology)
- 12 Taste Preferences in Rats Bred for High or Low Saccharin Intake: A Replication Project
Paulina Kerrigan
Mentor: Nancy Dess & Dale Chapman (Psychology)
- 13 Molecular basis of negative emotion during cocaine withdrawal
Maahir Uttam
Mentor: Kevin Urstadt (Cognitive Science)

- 14 Flexible Cognition of Minds and Machines
Pooja Bansiya
Mentor: Stephanie Nelli (Cognitive Science)
- 15 Flexible Cognition in Minds and Machines
Neda Rabii
Mentor: Stephanie Nelli (Cognitive Science)
- 16 Semantic Congruence Across Sensory Modalities
Taylor Beck
Mentor: Susan Geffen (Psychology)
- 17 Assessing Individual Differences In Multisensory Illusions
Maggie Baird
Mentor: Aleksandra Sherman (Cognitive Science)
- 18 Oxidative Alkene Functionalization via Photoredox Catalysis
Christopher Boeke
Mentor: Jeffrey Cannon (Chemistry)
- 19 Photoredox Annulation of Acetophenone
Greg Evans
Mentor: Jeffrey Cannon (Chemistry)
- 20 Reduction of Carbonyls via Photoredox Catalysis
Gahan Lahiri
Mentor: Jeffrey Cannon (Chemistry)
- 21 Auxiliary-Directed Diastereoselective Ireland–Claisen Rearrangement
Marta Pambukhchyan and Jenna Patel
Mentor: Jeffrey Cannon (Chemistry)
- 22 Unnatural Amino Acid Synthesis via Alkylation of α -tert-Butanesulfinamide
Auxiliary-Bound Enolates
Chris George
Mentor: Jeffrey Cannon (Chemistry)
- 23 Synthesis of indolizidines from L-Pyroglutamic acid using the Ireland-Claisen
rearrangement and Ring-closing metathesis
Ciara Gillen
Mentor: Jeffrey Cannon (Chemistry)
- 24 Indolizidine Synthesis from Pyroglutamate Esters Utilizing the
Ireland-Claisen Rearrangement and a Ring-Closing Metathesis
Daniel Kim
Mentor: Jeffrey Cannon (Chemistry)

- 25 Synthesis of Indolizidines Utilizing L-Pyroglutamic Acid and Allylic Alcohol
Max Young
Mentor: Jeffrey Cannon (Chemistry)
- 26 Engineering Virus Nanoparticles to Develop An Alternative Antagonist to Heparin
Amanda Iglesias
Mentor: Andrew Udit (Chemistry)
- 27 Developing an Alternative Antagonist to Heparin Utilizing Virus Nanoparticles
Mashly Martinez
Mentor: Andrew Udit (Chemistry)
- 28 Binding capacity of myoglobin and SDS to understand surfactant-heme protein biophysical interactions
Gianna Innocenti
Mentor: Andrew Udit (Chemistry)
- 29 Assessing the Binding Capabilities of Myoglobin and SDS to Understand Surfactant-Heme Biophysical Interactions
Izzy Phung
Mentor: Andrew Udit (Chemistry)
- 30 Electrochemical Supply for the Controlled Two-Electron Reduction of P450: Linker Synthesis
Clara Dearden
Mentor: Michael Hill (Chemistry)
- 31 Electrochemical Supply for the Controlled Two-Electron Reduction of P450: Linker Molecule
Deirdre Ellis
Mentor: Michael Hill (Chemistry)
- 32 Electrochemical Reshaping of Rabbit Cornea
Nathalie Kerrigan
Mentor: Michael Hill (Chemistry)
- 33 Electromechanical Reshaping of Rabbit Cornea
Kellie Hsu
Mentor: Michael Hill (Chemistry)
- 34 Nickel Iron Dihydroxyde Catalyst
Griffin Eden
Mentor: Michael Hill (Chemistry)

- 35 Electrochemical Supply for the Controlled Two-Electron Reduction of P450
Lizzy Kerman
Mentor: Michael Hill (Chemistry)
- 36 Analyzing Photocurrents in Ruthenium (II) Bis(bipyridine)
Dipyridophenazine and Carbon SPE Modification for Two-Electron
Reduction of P450
Clare Madden
Mentor: Michael Hill (Chemistry)
- 37 Axially ambivalent cobalt: Structures of 4-, 5-, and 6-coordinate complexes of
a Co(II)
Jack Thomas-Colwell
Mentor: Michael Hill (Chemistry)
-

Session IV (2:10-2:55 PM)

Session IV.A: Fowler 111
Moderator: Janet Scheel

- 2:10 Border Tunnel Detection via Muography
Lily Gebhart
Mentor: Daniel Snowden-Ifft (Physics)
- 2:25 Gain as a Function of Water Contamination in a Muon Detector
Sebastian Lechner
Mentor: Daniel Snowden-Ifft (Physics)
- 2:40 Lyapunov Exponents on Rayleigh-Bénard Convection
Jeffrey Yang
Mentor: Janet Scheel (Physics)

Session IV.B: Fowler 112
Moderator: Raul Navarro

- 2:10 Investigating the Electrochemical Properties of Organometallic Aromatic Nitrogen
Heterocycles and Their Use as Electrolyte in Flow Batteries
Edin Custo
Mentor: Emmanuelle Despagnet-Ayoub (Chemistry)

- 2:25 π - π Stacking Pyrene Ligand Organometallic Complexes on Carbon Nanotubes for Redox Flow Batteries
Chester Cahill
Mentor: Emmanuelle Despagnet-Ayoub (Chemistry)
- 2:40 Synthesizing A Novel Organo-Platinum Compound To Serve As The Electrochemically Active Component In A High Energy Density Flow Battery
Christopher Pierno
Mentor: Emmanuelle Despagnet-Ayoub (Chemistry)

Session IV.C: Fowler 201
Moderator: Andrew Shtulman

- 2:10 The role of similarity and causality in children's possibility judgments
Caroline Palumbo
Mentor: Andrew Shtulman (Psychology)
- 2:25 The role of similarity and causality in children's possibility judgments
Chloe Hetzel
Mentor: Andrew Shtulman (Psychology)
- 2:40 Re-Thinking Space in Children's Literature
Rees Walker
Mentor: Mary Christianakis (Critical Theory & Social Justice)

Session IV.D: Fowler 202
Moderator: Martha Matsuoka

- 2:10 Affordable Housing
Sydney Shipp
Mentor: Martha Matsuoka (Urban & Environmental Policy)
- 2:25 Chesapeake: A Case Study in Sacrifice Zones
Sarah Cook
Mentor: Martha Matsuoka (Urban & Environmental Policy)
- 2:40 Tenant Advocacy 101: A Guide To Equitable Development, Organizing, and Class Consciousness
Zander Patent
Mentor: Martha Matsuoka (Urban & Environmental Policy)

Session IV.E: Fowler 209

Moderator: Dolores Trevizo

- 2:10 Literature Review on Gloria Anzaldúa's Theories
Hector Ruiz-Manzo
Mentor: Dolores Trevizo (Sociology)
- 2:25 Gloria Anzaldúa and Pixar's Soul (2020): Paths of conocimiento between the spiritual and physical world
Vanessa Garza
Mentor: Dolores Trevizo (Sociology)
- 2:40 Gloria Anzaldúa's Spiritual Activism: Art and Transformation
Pacita Del Balso
Mentor: Robert Sanchez (Philosophy)

Session IV.F: Fowler 302

Moderator: Jesse Mora

- 2:10 Central Asian Trade Dependence on Russia
Daria Undeland
Mentor: Jesse Mora (Economics)
- 2:25 Olympic Impacts on Host Cities
Anaise Nugent
Mentor: Jason Wong (Economics)
- 2:40 The Impact of Loss Aversion on Poverty Traps
Miles Smith
Mentor: Brandon Lehr (Economics)

Session IV.G: Fowler 309

Moderator: Malek Moazzam-Doulat

Panel: Asylum Seekers and Removal Defense

Tomás Gómez Revelo, Sophia Meneakis, and Aidan Trinity
Mentor: Mary Christianakis (Critical Theory & Social Justice)

Session V (3:05-3:50PM)

Library, Third Floor

Poster #

- 1 Alternative Pathways to Synthesize Platinum Macromolecules for Redox Flow Batteries
Mia Thiagarajan
Mentor: Emmanuelle Despagnet-Ayoub (Chemistry)
- 2 Determining Reagent Shelf Life through Thermal Decomposition
Ella Surposa
Mentor: Emmanuelle Despagnet-Ayoub (Chemistry)
- 3 Substrate Synthesis of Allyl Ester Substituted Isoindolinones for Decarboxylative Allylic Alkylation
Hanna Adler
Mentor: Raul Navarro (Chemistry)
- 4 Synthesis and Evaluation of Isoindolinone Substrates for Decarboxylative Allylic Alkylations
Marisa Loo
Mentor: Raul Navarro (Chemistry)
- 5 Development of a Simple Alkylation Reaction for the Synthesis of 3,3-Disubstituted Isoindolinones
Mario Alvarado
Mentor: Raul Navarro (Chemistry)
- 6 Combined photoredox/titanium- catalyzed reductive cyclizations
Songhee Lee
Mentor: Jeffrey Cannon (Chemistry)
- 7 Using Gas Chromatography in Characterizing Oligomerization
Evelyn Lorch
Mentor: Emmanuelle Despagnet-Ayoub (Chemistry)
- 8 Synthesis of Multi-Pyridine Iron Metal Center Complexes and Their Use in Electrochemistry
Sarah Titcombe
Mentor: Emmanuelle Despagnet-Ayoub (Chemistry)
- 9 Metal-Pyrene Complex on Carbon Nanotube for Semi-Solid Redox Flow Battery
Samuel Villescas
Mentor: Emmanuelle Despagnet-Ayoub (Chemistry)

- 10 Analyzing Binding and Thermal Interactions Between the Bacteriophage QB and Heparin To Develop New Reversal Medication
Makayla Iliscupidez
Mentor: Andrew Udit (Chemistry)
- 11 Combining Myoglobin and SDS to mimic the denaturation of the P450 liver enzyme
Eleanor Goddard
Mentor: Andrew Udit (Chemistry)
- 12 Myoglobin Denaturation using Surfactant
Alex Moye
Mentor: Andrew Udit (Chemistry)
- 13 Primary Cell Culture of Adult Zebrafish Spinal Neurons
Isabella Lambert
Mentor: Joseph Schulz (Biology)
- 14 Comparing Color and Mass In Birds
Tatiana Washington
Mentor: John McCormack (Biology)
- 15 Reproductive Patterns in the Camotillo (*Paralabrax albomaculatus*)
Ilana Baum
Mentor: Dan Pondella (Biology)
- 16 Reproductive patterns in the parrot sand bass (*Paralabrax loro*)
Marisa Mow
Mentor: Dan Pondella (Biology)
- 17 Characterization of bacterial symbionts in blood-feeding copepods
Jule Kilgore-Reed
Mentor: Shana Goffredi (Biology)
- 18 Introvert Sponges Bore Easily: Short-Term Effects of Ocean Acidification and Predation on *Cliona Celata* Sponges
Lauren Samaniego
Mentor: Amber Stubler (Biology)
- 19 All Things Boring About Sponges: The Effects of Ocean Acidification on *Cliona Celata* Sponge Boring Behaviors
Alyssa Pfitzer Price
Mentor: Amber Stubler (Biology)

- 20 Exploring the Diversity and Distribution of the Microbiome of Ray-Feeding Branchellion Leeches
Bianca Dal Bó
Mentor: Shana Goffredi (Biology)
- 21 Identification and distribution of bacterial symbionts and changes during captivity in *Pterobdella occidentalis*, a marine leech
Ruby Siehl
Mentor: Shana Goffredi (Biology)
- 22 Differences in Ecological Niche of Stripe-Headed Sparrow
Jonathan Hewings
Mentor: John McCormack (Biology)
- 23 Phenotypic Variation in the *Xiphorhynchus* Genus
Mason Lynch
Mentor: John McCormack (Biology)
- 24 Interacting Effects of Heat and Water Stress on Leaf Thermotolerance of *Q. agrifolia* and *Q. engelmannii*
Mira Ranganath
Mentor: Gretchen North (Biology)
- 25 Development of vaccines against *Corynebacterium Pseudotuberculosis* infection
Matthew De Koch
Mentor: Karen Molinder (Biology)
- 26 *Tff2* is required for the development of mouse pancreatic β -cells
Anahy Lizarraga
Mentor: Jose Ortiz (City of Hope)
- 27 Reconstructing Holocene Hydrological Records of Summit Lake, Nevada
Xiaolu Wang
Mentor: Darren Larsen (Geology)
- 28 Heat transport and Large scale flow structures in a slender Rayleigh-Bénard Convection cell
Jacob Gitin
Mentor: Janet Scheel (Physics)
- 29 Using the Action Accelerator Model to meet Sustainable Development Goal #4
Will Powers
Mentor: Igor Logvinenko (Diplomacy & World Affairs)

- 30 How an Increase in Childcare Burden Affects Time Use Decisions and Labor Market Outcomes of Married Mothers and Fathers: Evidence from the COVID-19 Pandemic.
Sofia Laycock
Mentor: Kevin Williams (Economics)
- 31 Making and Keeping the World in the Loop
Elena Chen
Mentor: Jason Wong (Economics)
- 32 Studying Against the Tide: The Undergraduate Experience of Asian Americans in Non-STEM majors
Alison Hwang
Mentor: Min Yoo (Sociology)
- 33 Inequality in Urban Food Systems: Assessing the Distribution of Fresh Produce Within LA County
Josh Beissinger
Mentor: Seva Rodnyansky (Urban & Environmental Policy)
- 34 Assessing the Breast and Cervical Cancer Needs of Los Angeles County
Sunniva Berg
Mentor: Jessica Dirkes (Public Health)
- 35 Assessing the Accessibility of Non Emergency Medical Transportation to Improve Patient Experience and Appointment Attendance
Janeyce McCray
Mentor: Jessica Dirkes (Public Health)
- 36 Developing a Breast Cancer Health Campaign Tailored Towards LGBTQI+ Latinx Communities in Los Angeles County
Tobias Searcy-Jorgensen
Mentor: Jessica Dirkes (Public Health)
- 37 Addressing the Prevalence and Risk Factors of Hypertension Among Unhoused Adults Through Café Bistro
Grace Luu
Mentor: Jessica Dirkes (Public Health)
-

Session VI (4:00-5:00 PM)

Session VI.A: Fowler 111

Moderator: Damian Stocking

- 4:00 Moments of beauty: Life writing and the formation of self in literature
Samuel Berger
Mentor: Sydney Mitsunaga-Whitten (Comparative Studies in Language and Culture)
- 4:15 Towards a Sapphic Poetics: Sappho and Philosophy
Emma Denend
Mentor: Damian Stocking (Comparative Studies in Language and Culture)
- 4:30 Portraits of Kierkegaardian Anxiety and Despair in the Work of Joan Didion
Annabel Heyne
Mentor: Stephen Klemm (Comparative Studies in Language and Culture)
- 4:45 Dress: the supplement that makes the Body
Yunxian Jiang
Mentor: Damian Stocking (Comparative Studies in Language and Culture)

Session VI.B: Fowler 112

Moderator: Joseph Schulz

- 4:00 Reconstructing Past Wildfire and Hydroclimate Variability in the Eastern Sierra Nevada from Lake Sediment Archives
Peter Grimmert
Mentor: Darren Larsen (Geology)
- 4:15 Clastic Varves as Analogues for Paleoclimate: Exploring Lake Sediment Petrography
Adrian Aviles
Mentor: Darren Larsen (Geology)
- 4:30 Utilizing primary cell culture to study the effects of cone snail excitotoxins, on adult zebrafish neurons.
Areli Fernandez Orozco
Mentor: Joseph Schulz (Biology)
- 4:45 Uncovering hidden divergence: fine-scale genetic structure of slender salamanders in the Los Angeles metropolitan area
Zerlina Lai
Mentor: Amanda Zellmer (Biology)

Session VI.C: Fowler 201

Moderator: Amy Lyford

- 4:00 Suspended Subjects - The Female Body in Conceptual, Performance Art
Alex Kawawaki
Mentor: Amy Lyford (Art & Art History)
- 4:15 Two Case Studies of the Role of Women in Electronic Music Innovation, Advertising and Sound Design: Suzanne Ciani and SOPHIE
Téa Murphy
Mentor: David Kasunic (Music)
- 4:30 What Are You Eating? Explorations of Edible Spectacle
Frannie DiBona
Mentor: Vivian Wenli Lin (Media Arts & Culture)
- 4:45 Grieving Alone Together: The Transformative Power of Cinema
Joaquín Madrid Larrañaga
Mentor: Sarah Kozinn (Theater & Performance Studies)

Session VI.D: Fowler 202

Moderator: Alexander Day

- 4:00 Discursive Formations of National Identity, Sovereignty, and the Nation State in Late Imperial China
Lila O'Leary
Mentor: Alexander Day (History)
- 4:15 "The Legal Cartography of Power": Poor White Southerners's Understanding of Private Property in Antebellum South Carolina
Ellie McKinney
Mentor: Sharla Fett (History)
- 4:30 Food For Change: Effects of Shifts in the Political Economy of Wheat Production in 19th Century Spain
Andrez Parra
Mentor: Michael Gasper (History)
- 4:45 Effects of the 1915 Military Occupation of Haiti on Public Consciousness in the United States
Ellie Findell
Mentor: Jane Hong (History)

Session VI.E: Fowler 209
Moderator: Jorgen Harris

- 4:00 Home/Work: Does Comparative Labor Market Advantage Influence the Allocation of Household Chores?
Ruth Schlosser
Mentor: Jorgen Harris (Economics)
- 4:15 The Effects of Rail Expansion on the Labor Market Outcomes of Disabled People
Mary Everett Hancock
Mentor: Jorgen Harris (Economics)
- 4:30 STEM Gaps in Elementary School Students by Gender, Race, and Test Scores
Sophia Thé
Mentor: Diana Ngo (Economics)
- 4:45 Assessing Asset Indices as a Method to Measure Wealth
Ilna Gobburu
Mentor: Diana Ngo (Economics)

Session VI.F: Fowler 302
Moderator: Sharon Cech

- 4:00 Conserving Water Use On A Farm Using Grey Water Irrigation Techniques
Noah Aguilar
Mentor: Sharon Cech (Urban & Environmental Policy)
- 4:12 Alma Backyard Farms: Feeding The Hood
Delphinium Drake-Mudedede
Mentor: Sharon Cech (Urban & Environmental Policy)
- 4:24 The Urban Homestead: Sustaining Sustainable Food Processes
Madeline Hutson
Mentor: Sharon Cech (Urban & Environmental Policy)
- 4:36 Tool Lending: Increasing Access to Tools for Local Growers in LA's South Central
Gillian Tarrant
Mentor: Sharon Cech (Urban & Environmental Policy)
- 4:48 Urban Agricultural Space as a Nexus and Classroom - Avenue 33 Farm Internship
Ben Wilson
Mentor: Sharon Cech (Urban & Environmental Policy)

Session VI.G: Fowler 309
Moderator: Malek Moazzam-Doulat

- 4:00 Esperanza Immigrant Rights Project Intern
Lily Ramirez
Mentor: Mary Christianakis (Critical Theory & Social Justice)
- 4:15 Panel: Family, Childhood, and Immigration Rights
Dani Cooke, Jaya Duckworth, and Lucia Sato
Mentor: Mary Christianakis (Critical Theory & Social Justice)
-

Reception

Gilman Fountain
5:00

Installation: Frannie DiBona, *What Are You Eating?* [Swan 111]

5:30

Film Screening: Joaquín Madrid Larrañaga, *All That Could Have Been* [Choi Auditorium]

Student Presenters

Hanna Adler '23

Substrate Synthesis of Allyl Ester Substituted Isoindolinones for Decarboxylative Allylic Alkylation
Library, 3rd Floor, V, Poster 3,
3:05-3:50 PM



Mentor: Raul Navarro
Major: Biology
Funding: Chemistry/Biochemistry
Summer Research Endowment

Noah Aguilar '25

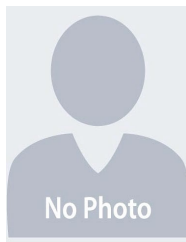
Conserving Water Use On A Farm Using Grey Water Irrigation Techniques
Fowler 302, VI.F, 4:00 PM



Mentor: Sharon Cech
Major: Undeclared
Funding: USDA, National Institute of Food and Agriculture, Agriculture and Food Research Initiative, Research and Extension Experiences for Undergraduates Program

Isabella Ali '23

Community Building in Skid Row
Library, 3rd Floor, III, Poster 6,
1:15-2:00 PM



Mentor: Martha Matsuoka
Major: Black Studies
Funding: Citizens Business Bank

Mario Alvarado '25

Development of a Simple Alkylation Reaction for the Synthesis of 3,3-Disubstituted Isoindolinones
Library, 3rd Floor, V, Poster 5,
3:05-3:50 PM



Mentor: Raul Navarro
Major: Chemistry
Funding: Sherman Fairchild Foundation
Fellowship

Caroline Arnall '23

Synthesis of Arene- and N-Substituted Isoindolinones for Decarboxylative Coupling
Fowler 202, II.D, 11:40 AM



Mentor: Raul Navarro
Major: Chemistry
Funding: Organic Syntheses Research
Grant for Faculty at PUI

Adrian Aviles '23

Clastic Varves as Analogues for Paleoclimate: Exploring Lake Sediment Petrography
Fowler 112, VI.B, 4:15 PM



Mentor: Darren Larsen
Major: Geology (Environmental Science
Concentration)
Funding: Mary S. Caswell Fund for
Summer Research

Maggie Baird '23

Assessing Individual Differences In Multisensory Illusions
Library, 3rd Floor, III, Poster 17,
1:15-2:00 PM



Mentor: Aleksandra Sherman
Major: Cognitive Science
Funding: Summer Undergraduate
Research Fellowship

Pooja Bansiya '24

Flexible Cognition of Minds and Machines
Library, 3rd Floor, III, Poster 14,
1:15-2:00 PM



Mentor: Stephanie Nelli
Major: Cognitive Science
Funding: Ford Research Mentor's
Endowment

Ilana Baum '25

Reproductive Patterns in the Camotillo (Paralabrax albomaculatus)
Library, 3rd Floor, V, Poster 15,
3:05-3:50 PM



Mentor: Dan Pondella
Major: Undeclared
Funding: Sherman Fairchild Foundation
Fellowship

Student Presenters

Taylor Beck '25

Semantic Congruence Across Sensory Modalities

Library, 3rd Floor, III, Poster 16,
1:15-2:00 PM



Mentor: Susan Geffen
Major: Psychology
Funding: Ford Research Mentor's Endowment

Josh Beissinger '23

Inequality in Urban Food Systems: Assessing the Distribution of Fresh Produce Within LA County

Library, 3rd Floor, V, Poster 33,
3:05-3:50 PM



Mentor: Seva Rodnyansky
Major: Urban & Environmental Policy
Funding: Ford Research Mentor's Endowment

Sunniva Berg '24

Assessing the Breast and Cervical Cancer Needs of Los Angeles County

Library, 3rd Floor, V, Poster 34,
3:05-3:50 PM



Mentor: Jessica Dirkes
Major: Urban & Environmental Policy
Funding: Community Health Engagement at Oxy

Samuel Berger '23

Moments of beauty: Life writing and the formation of self in literature

Fowler 111, VI.A, 4:00 PM

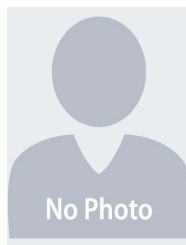


Mentor: Sydney Mitsunaga-Whitten
Major: Comparative Studies in Language and Culture
Funding: Ford Research Mentor's Endowment

Leo Blain '23

The nature of power: California property taxes and the struggle for cash between LADWP and their customers

Fowler 209, II.E, 11:40 AM



Mentor: Martha Matsuoka
Major: Urban & Environmental Policy
Funding: Dean of the College's Office

Christopher Boeke '24

Oxidative Alkene Functionalization via Photoredox Catalysis

Library, 3rd Floor, III, Poster 18,
1:15-2:00 PM



Mentor: Jeffrey Cannon
Major: Chemistry, Comparative Studies in Language and Culture
Funding: National Institutes of Health

Chester Cahill '24

π - π Stacking Pyrene Ligand Organometallic Complexes on Carbon Nanotubes for Redox Flow Batteries

Fowler 112, IV.B, 2:25 PM



Mentor: Emmanuelle Despagnet-Ayoub
Major: Chemistry
Funding: Ford Research Mentor's Endowment

Alexa Calzada '25

Panel: Public Policies and Immigration Rights-Coalition for Humane Immigrant Rights

Fowler 309, I.G, 10:30-11:15 AM



Mentor: Mary Christianakis
Major: Sociology, Economics

Maeve Cassetty '23

The Pope and Populism: Locating the Catholic Church in the Global Far Right Through an Analysis of Anti-Gender Movements in Poland, Croatia, and Hungary

Library, 3rd Floor, III, Poster 2,
1:15-2:00 PM



Mentor: Michael Amoruso
Major: Politics, Religious Studies (Interdisciplinary Concentration in Conflict Studies)
Funding: Ford Research Mentor's Endowment

Student Presenters

Elena Chen '23

Making and Keeping the World in the Loop

Library, 3rd Floor, V, Poster 31,
3:05-3:50 PM



Mentor: Jason Wong

Major: Economics

Funding: Undergraduate Research Fund
for Corporate Responsibility

Sarah Cook '24

Chesapeake: A Case Study in Sacrifice Zones

Fowler 202, IV.D, 2:25 PM



Mentor: Martha Matsuoka

Major: Media Arts & Culture

Funding: Dean of the College's Office

Dani Cooke '23

Panel: Family, Childhood, and Immigration Rights

Fowler 309, VI.G, 4:15 PM



Mentor: Mary Christianakis

Major: Critical Theory & Social Justice

Ray Corpus '23

Settling In Suburbia: Assimilation and Community Among Chinese Immigrants in Irvine, California

Fowler 209, I.E, 10:45 AM



Mentor: Jan Lin

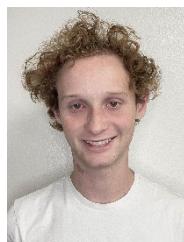
Major: Sociology

Funding: Ford Research Mentor's
Endowment

Max Craypo '23

Hate on the Terraces: the Emergence of the Ultra Movement in Europe

Fowler 112, II.B, 11:25 AM



Mentor: Philip Ayoub

Major: Diplomacy & World Affairs

Funding: Ford Research Mentor's
Endowment

Edin Custo '23

Investigating the Electrochemical Properties of Organometallic Aromatic Nitrogen Heterocycles and Their Use as Electrolyte in Flow Batteries

Fowler 112, IV.B, 2:10 PM



Mentor: Emmanuelle Despagnet-Ayoub

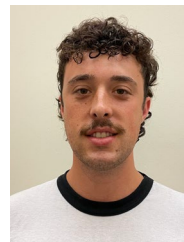
Major: Biochemistry

Funding: The Fletcher Jones Foundation
Science Scholar

Eric DaCosta '23

The Old Firm: Sectarianism in Scottish Society

Library, 3rd Floor, III, Poster 3,
1:15-2:00 PM



Mentor: Michael Amoruso

Major: Religious Studies

Funding: Kneeland Ministry Prize

Bianca Dal Bó '24

Exploring the Diversity and Distribution of the Microbiome of Ray-Feeding Branchionellid Leeches

Library, 3rd Floor, V, Poster 20,
3:05-3:50 PM



Mentor: Shana Goffredi

Major: Biology, Latino/a Latin American
Studies

Funding: National Science Foundation

Matthew De Koch '23

Development of vaccines against Corynebacterium Pseudotuberculosis infection

Library, 3rd Floor, V, Poster 25,
3:05-3:50 PM



Mentor: Karen Molinder

Major: Biochemistry

Funding: Chemistry/Biochemistry
Summer Research Endowment

Student Presenters

Clara Dearden '24

Electrochemical Supply for the Controlled Two-Electron Reduction of P450: Linker Synthesis

Library, 3rd Floor, III, Poster 30,
1:15-2:00 PM



Mentor: Michael Hill
Major: Chemistry
Funding: Ford Research Mentor's Endowment

Pacita Del Balso '23

Gloria Anzaldúa's Spiritual Activism: Art and Transformation

Fowler 209, IV.E, 2:40 PM



Mentor: Robert Sanchez
Major: Philosophy, Cognitive Science
Funding: Ford Research Mentor's Endowment

Lucien Delgutte '23

Oxidative alkene functionalization via photoredox catalysis

Fowler 202, II.D, 11:25 AM



Mentor: Jeffrey Cannon
Major: Chemistry, Comparative Studies in Language and Culture
Funding: Norris Research Endowment

Emma Denend '23

Towards a Sapphic Poetics: Sappho and Philosophy

Fowler 111, VI.A, 4:15 PM



Mentor: Damian Stocking
Major: Comparative Studies in Language and Culture
Funding: Ford Research Mentor's Endowment

Frannie DiBona '23

What Are You Eating? Explorations of Edible Spectacle

Fowler 201, VI.C, 4:30 PM

Installation: *What Are You Eating?*
[Swan 111]



Mentor: Vivian Wenli Lin
Major: Media Arts & Culture
Funding: Mellon Arts and Technology Grant

Delphinium Drake-Mudede '23

Alma Backyard Farms: Feeding The Hood

Fowler 302, VI.F, 4:12 PM



Mentor: Sharon Cech
Major: Economics
Funding: USDA, National Institute of Food and Agriculture, Agriculture and Food Research Initiative, Research and Extension Experiences for Undergraduates Program

Jaya Duckworth '23

Panel: Family, Childhood, and Immigration Rights

Fowler 309, VI.G, 4:15 PM

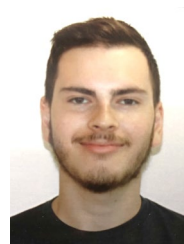


Mentor: Mary Christianakis
Major: Diplomacy & World Affairs
Funding: Barack Obama Scholars Program at Oxy

Ethan Dulaney '23

Pursuing the Trans Film Image

Fowler 302, II.C, 11:25 AM



Mentor: Broderick Fox
Major: Media Arts & Culture
Funding: Mellon Arts and Technology Grant

Olivia Duncan '23

Panel: Public Policies and Immigration Rights-Coalition for Humane Immigrant Rights

Fowler 309, I.G, 10:30-11:15 AM



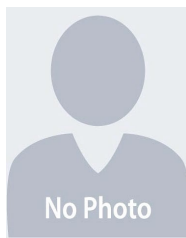
Mentor: Mary Christianakis
Major: Diplomacy & World Affairs

Student Presenters

Colleen Easler '23

Building Sustainable Food Systems and Improving Access to Fresh, Healthy Food in Los Angeles

Library, 3rd Floor, III, Poster 10,
1:15-2:00 PM



Mentor: Jessica Dirkes
Major: Urban & Environmental Policy
Funding: The Ralph M. Parsons Foundation and Community Health Engagement at Oxy

Griffin Eden '23

Nickel Iron Dihydroxyde Catalyst

Library, 3rd Floor, III, Poster 34,
1:15-2:00 PM



Mentor: Michael Hill
Major: Chemistry
Funding: Priscilla and Don Smith Summer Research Endowment

Deirdre Ellis '22

Electrochemical Supply for the Controlled Two-Electron Reduction of P450: Linker Molecule

Library, 3rd Floor, III, Poster 31,
1:15-2:00 PM



Mentor: Michael Hill
Major: Art & Art History

Marisa Emoto '23

Behind the Pipe Work Designing artworkxLA's Teaching Artist Handbook

Library, 3rd Floor, III, Poster 4,
1:15-2:00 PM

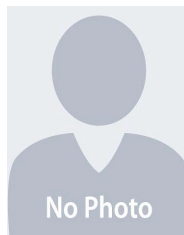


Mentor: Frankie Fleming and Rory Hayes (OXY ARTS)
Major: Art & Art History
Funding: Mellon Foundation Gift to OXY ARTS

Greg Evans '22

Photoredox Annulation of Acetophenone

Library, 3rd Floor, III, Poster 19,
1:15-2:00 PM

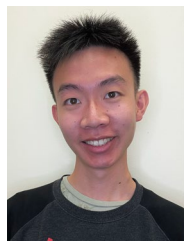


Mentor: Jeffrey Cannon
Major: Biochemistry
Funding: National Science Foundation

Jonathan Fang '23

Engaging with Water Conservation and Community Development in the San Gabriel Valley from a Nonprofit Organization Perspective

Library, 3rd Floor, III, Poster 7,
1:15-2:00 PM



Mentor: Martha Matsuoka
Major: Diplomacy & World Affairs
Funding: Dean of the College's Office

Areli Fernandez Orozco '24

Utilizing primary cell culture to study the effects of cone snail excitotoxins, on adult zebrafish neurons.

Fowler 112, VI.B, 4:30 PM



Mentor: Joseph Schulz
Major: Biology, Music
Funding: Virginia Reid Moore '37 Summer Research Fellowship

Ellie Findell '23

Effects of the 1915 Military Occupation of Haiti on Public Consciousness in the United States

Fowler 202, VI.D, 4:45 PM



Mentor: Jane Hong
Major: History
Funding: Ray A. Billington Endowment

Nate Fisher '23

Battling Impunity and Building Capacity: Incorporating Hybrid Anti-Corruption Agencies into Transitional Justice Processes

Fowler 112, II.B, 11:40 AM



Mentor: Madeline Baer
Major: Diplomacy & World Affairs, Spanish
Funding: Ford Research Mentor's Endowment

Student Presenters

Vanessa Garza '23

Gloria Anzaldua and Pixar's Soul (2020): Paths of conocimiento between the spiritual and physical world

Fowler 209, IV.E, 2:25 PM



Mentor: Dolores Trevizo
Major: Latino/a and Latin American Studies
Funding: Ford Research Mentor's Endowment

Lily Gebhart '25

Border Tunnel Detection via Muography

Fowler 111, IV.A, 2:10 PM



Mentor: Daniel Snowden-Ifft
Major: Mathematics, Cognitive Science
Funding: Sherman Fairchild Foundation Fellowship

Chris George '23

Unnatural Amino Acid Synthesis via Alkylation of α -tert-Butanesulfinamide Auxiliary-Bound Enolates

Library, 3rd Floor, III, Poster 22, 1:15-2:00 PM



Mentor: Jeffrey Cannon
Major: Biochemistry
Funding: Fletcher Jones Chemistry and Biochemistry Research Endowment

Ciara Gillen '24

Synthesis of indolizidines from L-Pyroglutamic acid using the Ireland-Claisen rearrangement and Ring-closing metathesis

Library, 3rd Floor, III, Poster 23, 1:15-2:00 PM



Mentor: Jeffrey Cannon
Major: Chemistry
Funding: Mark Paulsen '10 Summer Fellowship in the Chemical Sciences

Jacob Gitin '23

Heat transport and Large scale flow structures in a slender Rayleigh-Bénard Convection cell

Library, 3rd Floor, V, Poster 28, 1:15-2:00 PM

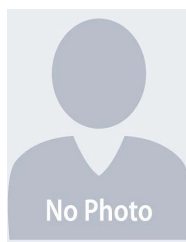


Mentor: Janet Scheel
Major: Physics
Funding: George M. Schmiedeshoff Summer Research Fellowship in Physics

Ilina Gobburu '23

Assessing Asset Indices as a Method to Measure Wealth

Fowler 209, VI.E, 4:45 PM

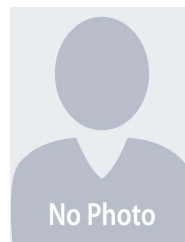


Mentor: Diana Ngo
Major: Economics
Funding: Ford Research Mentor's Endowment

Eleanor Goddard '25

Combining Myoglobin and SDS to mimic the denaturation of the P450 liver enzyme

Library, 3rd Floor, V, Poster 11, 3:05-3:50 PM



Mentor: Andrew Udit
Major: Biochemistry
Funding: Sherman Fairchild Foundation Fellowship

Zelie Goldberg Little '25

The Search for Dwarf Galaxy Clusters

Fowler 202, I.D, 10:45 AM



Mentor: Sabrina Stierwalt
Major: Physics
Funding: Sherman Fairchild Foundation Fellowship

Tomás Gómez Revelo '25

Panel: Asylum Seekers and Removal Defense

Fowler 309, IV.G, 2:10-2:55 PM



Mentor: Mary Christianakis
Major: Sociology, Diplomacy & World Affairs

Student Presenters

Olivia Greene '24

After #MeToo: Challenging Gender-Based Violence and Abuses of Power in Hollywood

Fowler 302, II.C, 11:40 AM



Mentor: Broderick Fox
Major: Media Arts & Culture
Funding: Mellon Arts and Urban Initiative Grant

Peter Grimmitt '23

Reconstructing Past Wildfire and Hydroclimate Variability in the Eastern Sierra Nevada from Lake Sediment Archives

Fowler 112, VI.B, 4:00 PM



Mentor: Darren Larsen
Major: Geology
Funding: The Kenneth T. & Eileen L. Norris Foundation Science Scholar

Alexis Guevara '23

Numerical Investigations of Nonlinear First-Order Ordinary Differential Equations

Fowler 201, II.F, 11:25-11:55 AM



Mentors: Treena Basu, Ron Buckmire
Major: Mathematics
Funding: National Science Foundation: Mathematical Association of America

Alex Guterrez Diaz '22
(Cal State LA)

Numerical Investigations of Nonlinear First-Order Ordinary Differential Equations

Fowler 201, II.F, 11:25-11:55 AM



Mentors: Treena Basu, Ron Buckmire
Major: Mathematics
Funding: National Science Foundation: Mathematical Association of America

Tehreem Hai '23

Star Clusters in Interacting Dwarf Galaxies

Fowler 202, I.D, 10:30 AM



Mentor: Sabrina Stierwalt
Major: Physics
Funding: The Kenneth T. & Eileen L. Norris Foundation Science Scholar

Mary Everett Hancock '23

The Effects of Rail Expansion on the Labor Market Outcomes of Disabled People

Fowler 209, VI.E, 4:15 PM



Mentor: Jorgen Harris
Major: Economics, Politics
Funding: Walter B. Gerken Summer Research Fellowship

Charlotte Harrington '23

How cognitive reflection shapes children's possibility judgments (Part 1)

Fowler 201, I.C, 10:30 AM



Mentor: Andrew Shtulman
Major: Psychology
Funding: James S. McDonnell Understanding Human Cognition Scholar Award

Chloe Hetzel '23

The role of similarity and causality in children's possibility judgments

Fowler 201, IV.C, 2:25 PM



Mentor: Andrew Shtulman
Major: Psychology
Funding: James S. McDonnell Understanding Human Cognition Scholar Award

Jonathan Hewings '23

Differences in Ecological Niche of Stripe-Headed Sparrow

Library, 3rd Floor, V, Poster 22, 3:05-3:50 PM



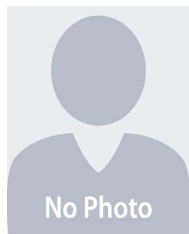
Mentor: John McCormack
Major: Biology
Funding: Borestone Fund

Student Presenters

Annabel Heyne '23

Portraits of Kierkegaardian Anxiety and Despair in the Work of Joan Didion

Fowler 111, VI.A, 4:30 PM



Mentor: Stephen Klemm

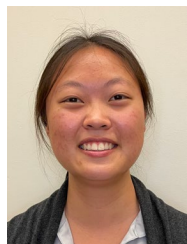
Major: Comparative Studies in Language and Culture

Funding: Undergraduate Research Center Summer Research Fellowship

Kellie Hsu '23

Electromechanical Reshaping of Rabbit Cornea

Library, 3rd Floor, III, Poster 33, 1:15-2:00 PM



Mentor: Michael Hill

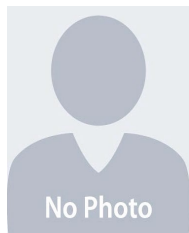
Major: Chemistry

Funding: National Institutes of Health

Madeline Hutson '23

The Urban Homestead: Sustaining Sustainable Food Processes

Fowler 302, VI.F, 4:24 PM



Mentor: Sharon Cech

Major: Economics

Funding: USDA, National Institute of Food and Agriculture, Agriculture and Food Research Initiative, Research and Extension Experiences for Undergraduates Program

Alison Hwang '23

Studying Against the Tide: The Undergraduate Experience of Asian Americans in Non-STEM majors

Library, 3rd Floor, V, Poster 32, 3:05-3:50 PM



Mentor: Min Yoo

Major: Sociology

Funding: Ford Research Mentor's Endowment

Amanda Iglesias '24

Engineering Virus Nanoparticles to Develop An Alternative Antagonist to Heparin

Library, 3rd Floor, III, Poster 26, 1:15-2:00 PM



Mentor: Andrew Udit

Major: Biochemistry

Funding: Gift in Honor of Frank DeHaan

Makayla Iliscupidez '25

Analyzing Binding and Thermal Interactions Between the Bacteriophage QB and Heparin To Develop New Reversal Medication

Library, 3rd Floor, V, Poster 10, 3:05-3:50 PM



Mentor: Andrew Udit

Major: Biochemistry

Funding: Sherman Fairchild Foundation Fellowship

Gianna Innocenti '23

Binding capacity of myoglobin and SDS to understand surfactant-heme protein biophysical interactions

Library, 3rd Floor, III, Poster 28, 1:15-2:00 PM



Mentor: Andrew Udit

Major: Biology

Funding: John Stauffer Summer Research in Chemistry/Biochemistry Endowment

Yunxian Jiang '23

Dress: the supplement that makes the Body

Fowler 111, VI.A, 4:45 PM



Mentor: Damian Stocking

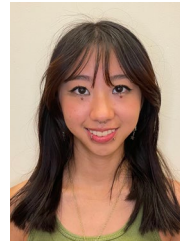
Major: Comparative Studies in Language and Culture

Funding: Undergraduate Research Center Summer Research Fellowship

Alex Kawawaki '23

Suspended Subjects - The Female Body in Conceptual, Performance Art

Fowler 201, VI.C, 4:00 PM



Mentor: Amy Lyford

Major: Art & Art History

Funding: Robert W. Winter History of Art & Architecture Summer Research Fellowship

Student Presenters

Lizzy Kerman '24

Electrochemical Supply for the Controlled Two-Electron Reduction of P450

Library, 3rd Floor, III, Poster 35,
1:15-2:00 PM



Mentor: Michael Hill
Major: Biochemistry
Funding: John Stauffer Summer Research in Chemistry/Biochemistry Endowment

Nathalie Kerrigan '25

Electrochemical Reshaping of Rabbit Cornea

Library, 3rd Floor, III, Poster 32,
1:15-2:00 PM



Mentor: Michael Hill
Major: Biology
Funding: National Institutes of Health

Paulina Kerrigan '23

Taste Preferences in Rats Bred for High or Low Saccharin Intake: A Replication Project

Library, 3rd Floor, III, Poster 12,
1:15-2:00 PM



Mentor: Nancy Dess and Dale Chapman
Major: Psychology
Funding: Psychology Rat Lab Fund

Jule Kilgore-Reed '25

Characterization of bacterial symbionts in blood-feeding copepods

Library, 3rd Floor, V, Poster 17,
3:05-3:50 PM



Mentor: Shana Goffredi
Major: Biology
Funding: Sherman Fairchild Foundation Fellowship

Daniel Kim '23

Indolizidine Synthesis from Pyroglutamate Esters Utilizing the Ireland-Claisen Rearrangement and a Ring-Closing Metathesis

Library, 3rd Floor, III, Poster 24,
1:15-2:00 PM



Mentor: Jeffrey Cannon
Major: Biochemistry
Funding: Professor George H. Cleland Endowed Undergraduate Summer Research Fellowship in Organic Chemistry

Jo Kim '23

How cognitive reflection shapes children's possibility judgments (Part 2)

Fowler 201, I.C, 10:45 AM



Mentor: Andrew Shtulman
Major: Psychology
Funding: James S. McDonnell Understanding Human Cognition Scholar Award

Kel Kline '24

Global Climate Vulnerability: An Analysis of the United Nations role in achieving Climate Justice

Fowler 112, II.B, 11:55 AM



Mentor: Lan Chu
Major: Urban & Environmental Policy
Funding: Ford Research Mentor's Endowment

Gahan Lahiri '23

Reduction of Carbonyls via Photoredox Catalysis

Library, 3rd Floor, III, Poster 20,
1:15-2:00 PM



Mentor: Jeffrey Cannon
Major: Biology
Funding: Ford Research Mentor's Endowment

Zerlina Lai '24

Uncovering hidden divergence: fine-scale genetic structure of slender salamanders in the Los Angeles metropolitan area

Fowler 112, VI.B, 4:45 PM



Mentor: Amanda Zellmer
Major: Computer Science
Funding: Sarah H. Roberts '68 and David H. Roberts '67 Annual Research Fellowship in Natural Sciences Fund

Student Presenters

Isabella Lambert '25

Primary Cell Culture of Adult Zebrafish Spinal Neurons

Library, 3rd Floor, V, Poster 13,
3:05-3:50 PM

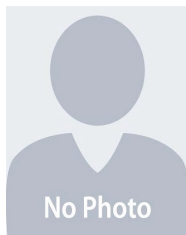


Mentor: Joseph Schulz
Major: Biology, Theater
Funding: Sherman Fairchild Foundation Fellowship

Antigone Lambros '23

Eating Behavior of Division III Cross Country Teams

Fowler 302, I.F, 11:00 AM



Mentor: Richard Mora
Major: Sociology
Funding: Ford Research Mentor's Endowment

Sofia Laycock '23

How an Increase in Childcare Burden Affects Time Use Decisions and Labor Market Outcomes of Married Mothers and Fathers: Evidence from the COVID-19 Pandemic.

Library, 3rd Floor, V, Poster 30,
3:05-3:50 PM



Mentor: Kevin Williams
Major: Economics
Funding: Walter B. Gerken Summer Research Fellowship

Sebastian Lechner '24

Gain as a Function of Water Contamination in a Muon Detector

Fowler 111, IV.A, 2:25 PM

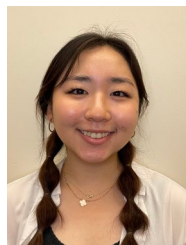


Mentor: Daniel Snowden-Ifft
Major: Physics
Funding: Ford Research Mentor's Endowment

Songhee Lee '25

Combined photoredox/titanium-catalyzed reductive cyclizations

Library, 3rd Floor, V, Poster 6,
3:05-3:50 PM



Mentor: Jeffrey Cannon
Major: Biochemistry
Funding: Sherman Fairchild Foundation Fellowship

Anahy Lizarraga '23

Tff2 is required for the development of mouse pancreatic β -cells

Library, 3rd Floor, V, Poster 26,
3:05-3:50 PM



Mentor: Jose Ortiz (City of Hope)
Major: Biology
Funding: Undergraduate Research Center Summer Research Fellowship

Marisa Loo '23

Synthesis and Evaluation of Isoindolinone Substrates for Decarboxylative Allylic Alkylations

Library, 3rd Floor, V, Poster 4,
3:05-3:50 PM



Mentor: Raul Navarro
Major: Chemistry
Funding: Norris Research Endowment

Evelyn Lorch '25

Using Gas Chromatography in Characterizing Oligomerization

Library, 3rd Floor, V, Poster 7,
3:05-3:50 PM



Mentor: Emmanuelle Despagnet-Ayoub
Major: Undeclared
Funding: Sherman Fairchild Foundation Fellowship

Olivia Loscavio '24

Where We Go One We Go All: Understanding QAnon from a Broader Social Perspective

Fowler 111, II.A, 11:40 AM



Mentor: Heather Lukes
Major: American Studies
Funding: Undergraduate Research Center Summer Research Fellowship

Student Presenters

Grace Luu '24

Addressing the Prevalence and Risk Factors of Hypertension Among Unhoused Adults Through Café Bistro

Library, 3rd Floor, V, Poster 37,
3:05-3:50 PM



Mentor: Jessica Dirkes
Major: Economics
Funding: The Ralph M. Parsons Foundation and Community Health Engagement at Oxy

Mason Lynch '24

Phenotypic Variation in the Xiphorhynchus Genus

Library, 3rd Floor, V, Poster 23,
3:05-3:50 PM



Mentor: John McCormack
Major: Biology
Funding: Undergraduate Research Center Summer Research Fellowship

Clare Madden '24

Analyzing Photocurrents in Ruthenium (II) Bis(bipyridine) Dipyridophenazine and Carbon SPE Modification for Two-Electron Reduction of P450

Library, 3rd Floor, III, Poster 36,
1:15-2:00 PM



Mentor: Michael Hill
Major: Chemistry
Funding: Christine Chui and Robert T. K. Chui Summer Research Fellow

Joaquín Madrid Larrañaga '23

Grieving Alone Together: The Transformative Power of Cinema

Fowler 201, VI.C, 4:45 PM

Film Screening: 5:30 PM, *All That Could Have Been* (Choi Auditorium)



Mentor: Sarah Kozinn
Major: Computer Science
Funding: Mellon Arts and Urban Initiative Grant

Melissa Maldonado '23

Affordable Housing in East Los Angeles

Library, 3rd Floor, III, Poster 8,
1:15-2:00 PM



Mentor: Martha Matsuoka
Major: Urban & Environmental Policy
Funding: Citizens Business Bank and the Dean of the College's Office

Anushka Malhotra '23

Panel: Public Policies and Immigration Rights-Coalition for Humane Immigrant Rights

Fowler 309, I.G, 10:30-11:15 AM



Mentor: Mary Christianakis
Major: Diplomacy & World Affairs

Adrian Manhey '23

Gathering Data for Analogical Theory of Mind

Fowler 112, I.B, 10:30 AM



Mentor: Irina Rabkina
Major: Computer Science, Mathematics
Funding: Mary S. Caswell Fund for Summer Research

Nora Manukyan '24

A Kantian Foodie: on Desserts and Aesthetics

Fowler 111, I.A, 10:30 AM



Mentor: Robert Sanchez
Major: Philosophy, Mathematics
Funding: Mary S. Caswell Fund for Summer Research

Mashly Martinez '24

Developing an Alternative Antagonist to Heparin Utilizing Virus Nanoparticles

Library, 3rd Floor, III, Poster 27,
1:15-2:00 PM



Mentor: Andrew Udit
Major: Kinesiology
Funding: Virginia Reid Moore '37 Summer Research Fellowship

Student Presenters

Sydney Martinez '23

An Interactive and Intelligent Hand Gestural Interface for DJing
Fowler 112, I.B, 11:00 AM



Mentor: Fabio Paolizzo
Major: Music
Funding: Mellon Arts and Technology Grant

Janeyce McCray '24

Assessing the Accessibility of Non Emergency Medical Transportation to Improve Patient Experience and Appointment Attendance
Library, 3rd Floor, V, Poster 35,
3:05-3:50 PM



Mentor: Jessica Dirkes
Major: Sociology
Funding: The Ralph M. Parsons Foundation and Community Health Engagement at Oxy

Ellie McKinney '23

"The Legal Cartography of Power": Poor White Southerners' Understanding of Private Property in Antebellum South Carolina
Fowler 202, VI.D, 4:15 PM



Mentor: Sharla Fett
Major: History, Urban & Environmental Policy
Funding: Ray A. Billington Endowment

Abby McLaughlin '23

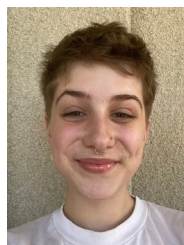
The Sesame Street Project
Fowler 201, I.C, 11:00 AM



Mentor: Susan Geffen
Major: Psychology
Funding: Mellon Arts and Urban Initiative Grant

Sophia Meneakis '25

Panel: Asylum Seekers and Removal Defense
Fowler 309, IV.G, 2:10-2:55 PM



Mentor: Mary Christianakis
Major: Critical Theory & Social Justice

Sela Moretti-Hitchcock '23

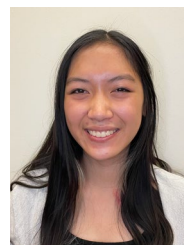
Justifying Juvenile Justice: Good Faith Decision-Making to Protect Children's Futures
Fowler 111, II.A, 11:25 AM



Mentor: Clair Morrissey
Major: Philosophy
Funding: Arnston Memorial Essay Award

Marisa Mow '25

Reproductive patterns in the parrot sand bass (Paralabrax loro)
Library, 3rd Floor, V, Poster 16,
3:05-3:50 PM



Mentor: Dan Pondella
Major: Music Production
Funding: Sherman Fairchild Foundation Fellowship

Alex Moye '25

Myoglobin Denaturation using Surfactant
Library, 3rd Floor, V, Poster 12,
3:05-3:50 PM



Mentor: Andrew Udit
Major: Undeclared
Funding: Sherman Fairchild Foundation Fellowship

Téa Murphy '23

Two Case Studies of the Role of Women in Electronic Music Innovation, Advertising and Sound Design: Suzanne Ciani and SOPHIE
Fowler 201, VI.C, 4:15 PM



Mentor: David Kasunic
Major: Music
Funding: Mellon Arts and Technology Grant

Student Presenters

Anaise Nugent '23

Olympic Impacts on Host Cities
Fowler 302, IV.F, 2:25 PM



Mentor: Jason Wong
Major: Economics, Urban & Environmental Policy
Funding: Undergraduate Research Center Summer Research Fellowship

Lila O'Leary '24

Discursive Formations of National Identity, Sovereignty, and the Nation State in Late Imperial China
Fowler 202, VI.D, 4:00 PM



Mentor: Alexander Day
Major: History, Diplomacy & World Affairs
Funding: Undergraduate Research Center Summer Research Fellowship

Deandre Ortiz '24

Why Affordable Housing Matters
Fowler 209, II.E, 11:25 AM



Mentor: Martha Matsuoka
Major: Politics
Funding: Barack Obama Scholars Program at Oxy

Raina Pahade '24

Summer Internship at Clockshop
Library, 3rd Floor, III, Poster 5,
1:15-2:00 PM



Mentor: Frankie Fleming and Rory Hayes (OXY ARTS)
Major: Critical Theory & Social Justice
Funding: Mellon Foundation Gift to OXY ARTS

Caroline Palumbo '23

The role of similarity and causality in children's possibility judgments
Fowler 201, IV.C, 2:10 PM



Mentor: Andrew Shtulman
Major: Spanish, Psychology
Funding: James S. McDonnell Understanding Human Cognition Scholar Award

Marta Pambukhchyan '23 (Crescenta Valley High School)

Auxiliary-Directed Diastereoselective Ireland-Claisen Rearrangement
Library, 3rd Floor, III, Poster 21
(joint w/ Patel), 1:15-2:00 PM



Mentor: Jeffrey Cannon
Funding: National Science Foundation

Andrez Parra '23

Food For Change: Effects of Shifts in the Political Economy of Wheat Production in 19th Century Spain
Fowler 202, VI.D, 4:30 PM



Mentor: Michael Gasper
Major: History, Economics
Funding: Mary S. Caswell Fund for Summer Research

Jenna Patel '23 (Crescenta Valley High School)

Auxiliary-Directed Diastereoselective Ireland-Claisen Rearrangement
Library, 3rd Floor, III, Poster 21
(joint w/ Pambukhchyan),
1:15-2:00 PM



Mentor: Jeffrey Cannon
Funding: National Science Foundation

Zander Patent '24

Tenant Advocacy 101: A Guide To Equitable Development, Organizing, and Class Consciousness
Fowler 202, IV.D, 2:40 PM



Mentor: Martha Matsuoka
Major: Politics
Funding: Barack Obama Scholars Program at Oxy

Student Presenters

Alyssa Pfitzer Price '23

All Things Boring About Sponges: The Effects of Ocean Acidification on Cliona Celata Sponge Boring Behaviors

Library, 3rd Floor, V, Poster 19,
3:05-3:50 PM



Mentor: Amber Stubler
Major: Biology
Funding: Summer Undergraduate Research Fellowship

Izzy Phung '24

Assessing the Binding Capabilities of Myoglobin and SDS to Understand Surfactant-Heme Biophysical Interactions

Library, 3rd Floor, III, Poster 29,
1:15-2:00 PM

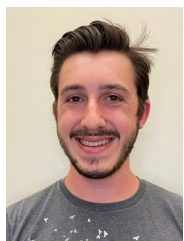


Mentor: Andrew Udit
Major: Biochemistry, Comparative Studies in Language and Culture
Funding: National Institutes of Health

Christopher Pierno '23

Synthesizing A Novel Organo-Platinum Compound To Serve As The Electrochemically Active Component In A High Energy Density Flow Battery

Fowler 112, IV.B, 2:40 PM



Mentor: Emmanuelle Despagnet-Ayoub
Major: Chemistry
Funding: Undergraduate Research Center Summer Research Fellowship

Hannah Plummer '23

Feminine Bodies and Consumption: Female Saints and Ascetic Practices in Tiqqun's Theory of the Young-Girl

Library, 3rd Floor, III, Poster 1,
1:15-2:00 PM

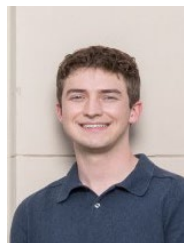


Mentor: Kristi Upson-Saia
Major: Religious Studies
Funding: Undergraduate Research Center Summer Research Fellowship

Will Powers '23

Using the Action Accelerator Model to meet Sustainable Development Goal #4

Library, 3rd Floor, V, Poster 29,
3:05-3:50 PM



Mentor: Igor Logvinenko
Major: Diplomacy & World Affairs
Funding: Barack Obama Scholars Program at Oxy

Neda Rabii '22

Flexible Cognition in Minds and Machines

Library, 3rd Floor, III, Poster 15,
1:15-2:00 PM



Mentor: Stephanie Nelli
Major: Cognitive Science
Funding: Undergraduate Research Center Summer Research Fellowship

Lily Ramirez '23

Esperanza Immigrant Rights Project Intern

Fowler 309, VI.G, 4:00 PM



Mentor: Mary Christianakis
Major: Sociology

Mira Ranganath '23

Interacting Effects of Heat and Water Stress on Leaf Thermotolerance of Q. agrifolia and Q. engelmannii

Library, 3rd Floor, V, Poster 24,
3:05-3:50 PM



Mentor: Gretchen North
Major: Biology
Funding: The Fletcher Jones Foundation Science Scholar

Hector Ruiz-Manzo '23

Literature Review on Gloria Anzaldúa's Theories

Fowler 209, IV.E, 2:10 PM



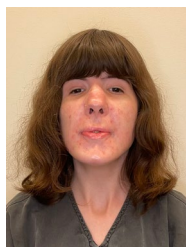
Mentor: Dolores Trevizo
Major: Latino/a and Latin American Studies
Funding: Mary S. Caswell Fund for Summer Research

Student Presenters

Nina Russell '23

Constructing Disability: Eugenics in the Golden State, 1928-1942

Fowler 302, I.F, 10:30 AM



Mentor: Dolores Trevizo

Major: Sociology

Funding: Summer Undergraduate Research Fellowship

Lauren Samaniego '25

Introvert Sponges Bore Easily: Short-Term Effects of Ocean Acidification and Predation on Cliona Celata Sponges

Library, 3rd Floor, V, Poster 18, 3:05-3:50 PM



Mentor: Amber Stubler

Major: Intended Biochemistry, Art & Art History

Funding: Sherman Fairchild Foundation Fellowship

Lucia Sato '23

Panel: Family, Childhood, and Immigration Rights

Fowler 309, VI.G, 4:15 PM



Mentor: Mary Christianakis

Major: Psychology

Ruth Schlosser '23

Home/Work: Does Comparative Labor Market Advantage Influence the Allocation of Household Chores?

Fowler 209, VI.E, 4:00 PM



Mentor: Jorgen Harris

Major: Economics

Funding: Undergraduate Research Center Summer Research Fellowship

Tobias Searcy-Jorgensen '24

Developing a Breast Cancer Health Campaign Tailored Towards LGBTQI+ Latinx Communities in Los Angeles County

Library, 3rd Floor, V, Poster 36, 3:05-3:50 PM



Mentor: Jessica Dirkes

Major: Kinesiology

Funding: The Ralph M. Parsons Foundation and Community Health Engagement at Oxy

Sydney Shipp '23

Affordable Housing

Fowler 202, IV.D, 2:10 PM



Mentor: Martha Matsuoka

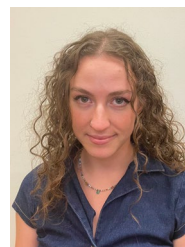
Major: Economics

Funding: Dean of the College's Office

Mahala Shulman '23

The Fight Against Violence: Youth Activism Within Anti-Violence Organizations

Fowler 302, I.F, 10:45 AM



Mentor: Benjamin Weiss

Major: Sociology

Funding: Undergraduate Research Center Summer Research Fellowship

Ruby Siehl '24

Identification and distribution of bacterial symbionts and changes during captivity in Pterobdella occidentalis, a marine leech

Library, 3rd Floor, V, Poster 21, 3:05-3:50 PM



Mentor: Shana Goffredi

Major: Biology

Funding: National Science Foundation: Integrative and Organismal Systems Award

Johnny Sierra '22 (Cal State LA)

Numerical Investigations of Nonlinear First-Order Ordinary Differential Equations

Fowler 201, II.F, 11:25-11:55 AM



Mentors: Treena Basu, Ron Buckmire

Major: Mathematics

Funding: National Science Foundation: Mathematical Association of America

Student Presenters

Miles Smith '23

The Impact of Loss Aversion on Poverty Traps

Fowler 302, IV.F, 2:40 PM



Mentor: Brandon Lehr
Major: Economics, Mathematics
Funding: Undergraduate Research Center Summer Research Fellowship

Zoey Solomon '24

Documentary in the Digital Era

Fowler 302, II.C, 11:55 AM



Mentor: Broderick Fox
Major: Urban & Environmental Policy
Funding: Mellon Arts and Technology Grant

Ella Surposa '24

Determining Reagent Shelf Life through Thermal Decomposition

Library, 3rd Floor, V, Poster 2, 3:05-3:50 PM



Mentor: Emmanuelle Despagnet-Ayoub
Major: Biology
Funding: JPL Chevron

Christopher Swanson '25

Clumpiness of Star Clusters in Merging Dwarf Galaxies

Fowler 202, I.D, 11:00 AM



Mentor: Sabrina Stierwalt
Major: Physics, Mathematics
Funding: Astronomy & Astrophysics Research Grant from the National Science Foundation

Nathan Tam '23

Resilience in Chinese America: Contradictions of Immigration, Economic Development, and Cultural Change in the Formation of Community

Fowler 209, I.E, 10:30 AM



Mentor: Martha Matsuoka
Major: Urban & Environmental Policy
Funding: Barack Obama Scholars Program at Oxy

Gillian Tarrant '23

Tool Lending: Increasing Access to Tools for Local Growers in LA's South Central

Fowler 302, VI.F, 4:36 PM



Mentor: Sharon Cech
Major: Urban & Environmental Policy
Funding: USDA, National Institute of Food and Agriculture, Agriculture and Food Research Initiative, Research and Extension Experiences for Undergraduates Program

Sophia Thé '23

STEM Gaps in Elementary School Students by Gender, Race, and Test Scores

Fowler 209, VI.E, 4:30 PM



Mentor: Diana Ngo
Major: Economics
Funding: Undergraduate Research Center Summer Research Fellowship

Mia Thiagarajan '24

Alternative Pathways to Synthesize Platinum Macromolecules for Redox Flow Batteries

Library, 3rd Floor, V, Poster 1, 3:05-3:50 PM



Mentor: Emmanuelle Despagnet-Ayoub
Major: Diplomacy & World Affairs, Chemistry
Funding: National Science Foundation

Jack Thomas-Colwell '23

Axially ambivalent cobalt: Structures of 4-, 5-, and 6-coordinate complexes of a Co(II)

Library, 3rd Floor, III, Poster 37, 1:15-2:00 PM



Mentor: Michael Hill
Major: Chemistry, Computer Science
Funding: The Fletcher Jones Foundation Science Scholar

Student Presenters

Amelia Threatt '23

Numerical Investigations of Nonlinear First-Order Ordinary Differential Equation

Fowler 201, II.F, 11:25-11:55 AM



Mentors: Treena Basu, Ron Buckmire
Major: Mathematics, Computer Science
Funding: National Science Foundation; Mathematical Association of America

Sarah Titcombe '25

Synthesis of Multi-Pyridine Iron Metal Center Complexes and Their Use in Electrochemistry

Library, 3rd Floor, V, Poster 8,
3:05-3:50 PM



Mentor: Emmanuelle Despagnet-Ayoub
Major: Biochemistry
Funding: Sherman Fairchild Foundation Fellowship

Aidan Trinity '24

Panel: Asylum Seekers and Removal Defense

Fowler 309, IV.G, 2:10-2:55 PM



Mentor: Mary Christianakis
Major: Diplomacy & World Affairs

Daria Undeland '25

Central Asian Trade Dependence on Russia

Fowler 302, IV.F, 2:10 PM



Mentor: Jesse Mora
Major: Economics
Funding: Undergraduate Research Center Summer Research Fellowship

Maahir Uttam '22

Molecular basis of negative emotion during cocaine withdrawal

Library, 3rd Floor, III, Poster 13,
1:15-2:00 PM



Mentor: Kevin Urstadt
Major: Psychology
Funding: Undergraduate Research Center Summer Research Fellowship

Lorenzo Vargas '23

Community Organizing with Friends Of the LA River

Fowler 111, II.A, 11:55 AM



Mentor: Candace Mixon
Major: English
Funding: Barack Obama Scholars Program at Oxy

Matthew Vickers '25

At the Rendezvous of Haiti: History and Revolution in the Thought of C.L.R. James

Fowler 111, I.A, 10:45 AM



Mentor: Warren Montag
Major: Undeclared
Funding: Arnston Memorial Essay Award

Samuel Villescascas '25

Metal-Pyrene Complex on Carbon Nanotube for Semi-Solid Redox Flow Battery

Library, 3rd Floor, V, Poster 9,
3:05-3:50 PM



Mentor: Emmanuelle Despagnet-Ayoub
Major: Undeclared
Funding: Sherman Fairchild Foundation Fellowship

Jane Walker '23

Mimesis, Materiality, and the Nascent Feminine in John Milton's Paradise Lost

Fowler 111, I.A, 11:00 AM



Mentor: Ross Lerner
Major: English
Funding: Summer Undergraduate Research Fellowship

Student Presenters

Rees Walker '23

Re-Thinking Space in Children's Literature

Fowler 201, IV.C, 2:40 PM



Mentor: Mary Christianakis

Major: Critical Theory & Social Justice

Funding: Undergraduate Research Center Summer Research Fellowship

Xiaolu Wang '23

Reconstructing Holocene Hydrological Records of Summit Lake, Nevada

Library, 3rd Floor, V, Poster 27, 3:05-3:50 PM



Mentor: Darren Larsen

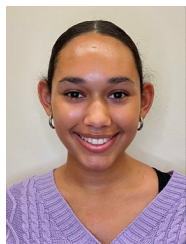
Major: Geology

Funding: Sarah H. Roberts '68 and David H. Roberts '67 Annual Research Fellowship in Natural Sciences Fund

Tatiana Washington '25

Comparing Color and Mass In Birds

Library, 3rd Floor, V, Poster 14, 3:05-3:50 PM



Mentor: John McCormack

Major: Biology

Funding: Sherman Fairchild Foundation Fellowship

Sunari Weaver-Anderson '24

The Interconnectedness of Housing, Environment and Transportation

Library, 3rd Floor, III, Poster 9, 1:15-2:00 PM



Mentor: Martha Matsuoka

Major: Politics

Funding: Barack Obama Scholars Program at Oxy

Alika Williams '23

Healthcare Access Barriers and Motivations for Pacific Islanders

Library, 3rd Floor, III, Poster 11, 1:15-2:00 PM



Mentor: Patricia Cabral

Major: Psychology

Funding: Undergraduate Research Center Summer Research Fellowship

Emily Williams '23

Lighting the Limits: A Media Analysis of Neon Signs as Markers of Marginality

Fowler 209, I.E, 11:00 AM



Mentor: Caroline Heldman

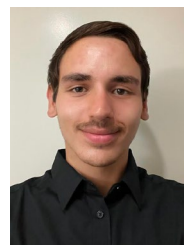
Major: Critical Theory & Social Justice

Funding: Mellon Arts and Urban Initiative Grant

Ben Wilson '24

Urban Agricultural Space as a Nexus and Classroom - Avenue 33 Farm Internship

Fowler 302, VI.F, 4:48 PM



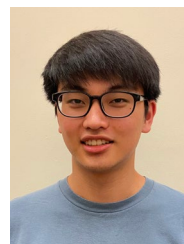
Mentor: Sharon Cech

Major: Urban & Environmental Policy
Funding: USDA, National Institute of Food and Agriculture, Agriculture and Food Research Initiative, Research and Extension Experiences for Undergraduates Program

Jeffrey Yang '23

Lyapunov Exponents on Rayleigh-Bénard Convection

Fowler 111, IV.A, 2:40 PM



Mentor: Janet Scheel

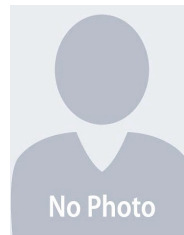
Major: Physics

Funding: Norris Research Endowment

Max Young '22

Synthesis of Indolizidines Utilizing L-Pyroglutamic Acid and Allylic Alcohol

Library, 3rd Floor, III, Poster 25, 1:15-2:00 PM



Mentor: Jeffrey Cannon

Major: Chemistry

Funding: Donald R. Deardorff Endowed Undergraduate Summer Research Fellowship for Chemistry

Student Presenters

Victor Zhu '23

*Automatic Recognition of Emotions
in Music by Machine Learning
Algorithm*

Fowler 112, I.B, 10:45 AM



Mentor: Fabio Paolizzo

Major: Computer Science

Funding: Mellon Arts and Technology
Grant

Funding

Occidental College gratefully acknowledges the generosity of the following donors to the Undergraduate Research Center over the last fiscal year. Nearly three decades of rich and transformative faculty-student research opportunities have been made possible by this type of support. Many thanks to the generosity of individuals who support the URC, the URC endowed funds:

Arnston Memorial Essay Award Endowment
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The Fletcher Jones Foundation
Ford Research Mentor's Endowment
George M. Schmiedeshoff Summer Research Fellowship in Physics Fund
John Stauffer Summer Research in Chemistry/Biochemistry Endowment
Kneeland Ministry Prize Endowment
Mark Paulsen '10 Summer Fellowship in Chemical Sciences
Mary S. Caswell Fund for Summer Research
Mellon Arts and Technology Grant
Mellon Arts and Urban Initiative Grant
Kenneth T. & Eileen L. Norris Foundation
Priscilla and Don Smith Summer Research Endowment
Prof. George H. Cleland Endowed Undergraduate Summer Research Fellowship in Organic Chemistry
Ray A. Billington Endowment
Robert W. Winter History of Art & Architecture Summer Research Fellowship Endowment
Sarah H. Roberts '68 and David H. Roberts '67 Annual Research Fellowship in Natural Sciences Fund
Sherman Fairchild Foundation Fellowship - Research Early Access Program
Summer Undergraduate Research Fellowship Endowment
Undergraduate Research Fund for Corporate Responsibility
Virginia Reid Moore '37 Summer Research Fellowship Endowment
Walter B. Gerken Summer Research Fellowship Endowment

and, grants awarded to faculty at the College from:

American Chemical Society
James S. McDonnell Foundation
Mathematical Association of America
National Institutes of Health
National Science Foundation

Acknowledgments

Making undergraduate research happen at Occidental is a campus-wide effort. Our students are supported not only by their faculty mentors, peer mentors, and the Undergraduate Research Center, but also by administrators, staff, alumni, donors, and campus constituencies across the board. We are grateful for everyone who contributes to making this program and the annual conference a success. Without these dedicated people, our program simply could not exist.

2021-2022 Undergraduate Research Committee

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Michael Amoruso • Philip Ayoub • Madeline Baer • Patricia Cabral • Jeffrey Cannon
Sharon Cech • Dale Chapman • Mary Christianakis • Lan Chu • Alexander Day
Emmanuelle Despagnet-Ayoub • Nancy Dess • Jessica Dirkes • Sharla Fett
Frankie Fleming • Broderick Fox • Michael Gasper • Susan Geffen • Shana Goffredi
Jorgen Harris • Rory Hayes • Caroline Heldman • Michael Hill • Jane Hong
David Kasunic • Stephen Klemm • Sarah Kozinn • Darren Larsen • Brandon Lehr
Ross Lerner • Jan Lin • Igor Logvinenko • Heather Lukes • Amy Lyford
Martha Matsuoka • John McCormack • Sydney Mitsunaga-Whitten • Candace Mixon
Karen Molinder • Warren Montag • Richard Mora • Jesse Mora • Clair Morrissey
Raul Navarro • Stephanie Nelli • Diana Ngo • Gretchen North • Jose Ortiz (City of Hope)
Fabio Paolizzo • Dan Pondella • Irina Rabkina • Seva Rodnyansky • Robert Sanchez
Janet Scheel • Joseph Schulz • Aleksandra Sherman • Andrew Shtulman
Daniel Snowden-Ifft • Sabrina Stierwalt • Damian Stocking • Amber Stubler
Dolores Trevizo • Andrew Udit • Kristi Upson-Saia • Kevin Urstadt • Benjamin Weiss
Vivian Wenli Lin • Kevin Williams • Jason Wong • Min Yoo • Amanda Zellmer

Research Early Access Program Faculty Lead

Emmanuelle Despagnet-Ayoub

Summer Research Program Peer Mentors

Hanna Adler • Chester Cahill • Ray Corpus • Matthew De Koch • Lucien Delgutte
Arelí Fernandez Orozco • Ellie Findell • Kel Kline • Sebastian Lechner
Joaquín Madrid Larrañaga • Carol Palumbo • Alyssa Pfitzer Price • Nathan Tam
Rees Walker

Professional Development Workshop Facilitators

Daryl Barker • Jeffrey Cannon • Samantha Hilton • Susan Geffen • Jennifer Locke
Robin Maxile • Julie Prebel • Kevin Urstadt

Campus Departments

Alumni Relations Office	Facilities Management
Business Office	Financial Aid Office
Campus Dining	Information Technology Services
Campus Safety	Institutional Advancement
Card Office	Institutional Review Boards
Career Services, Hameetman Career Center	National and International Awards and Fellowships
College Library	Office of Marketing and Communications
Conference Services	Residential Education and Housing Services
Corporate and Foundation Relations	
Dean of the College Office	
Emmons Wellness Center	

Undergraduate Research Center Staff



Maria Paula Muñoz '25
Office Assistant



Karla J. Hernández
Department Coordinator



Clair Morrissey
Faculty Director

Program Cover designed by Maria Paula Muñoz '25
Group Photo Courtesy of Nicholas Graves '23
SRP 2022 Logo designed by Pacita Del Balso '23



In memory of April Anne Mazzeo, URC Director, and TOPS Program Administrator

Ms. Mazzeo passed away on 29 June 2022 after battling brain cancer for nearly a year. She was 76 years old.

A multi-talented administrator, Ms. Mazzeo joined the Occidental community in 1992 as the founding administrator for the Teachers + Occidental = Partners in Science (TOPS) program, the College's nationally recognized outreach program to high, middle, and elementary science teachers and students in the Los Angeles area. She earned her Bachelor of Science degree in Chemistry from Purdue University in 1967 (the only woman in her chemistry class) and previously worked at Hercules Chemical Company and NASA's Jet Propulsion Laboratory. Her work with the TOPS program impacted the science education for hundreds of thousands of students. Beyond managing the budgets and reports for millions of dollars of private, state, and federal grants, she led classes for teachers and students, organized multiple two-week-long summer institutes for classroom teachers, prepared chemicals and supplies, wrote laboratory protocols, fixed equipment for teachers in the field, created the TOPS website, statistically analyzed the program's effectiveness, co-authored multiple peer-reviewed publications, and made multiple presentations at national conferences across the US.

In 1998 she was selected as the founding administrator and later became Director for the Undergraduate Research Center, URC. In addition to the writing/accounting/reporting requirements for many millions of dollars of federal and private grants, she organized the annual 10-week residential research program for over 100 students each summer, supported the research efforts of hundreds more during the academic year, organized and sponsored student presentations at national and regional (SCCUR) conferences as well as co-hosting the SCCUR conference for 800 at Occidental. She created the URC website and the alumni database that facilitated the program's statistical analysis. She co-authored multiple peer-reviewed publications (including undergraduate co-authors) demonstrating the remarkable impact of the URC beyond its traditional base in the sciences. In this expansive vision of undergraduate research, she was way ahead of the national conversation about inclusive excellence, established the URC as one of Oxy's "signature programs", and the College as a national leader.

She subsequently took on the additional responsibility as administrator for the Sponsored Research Office, SRO. Beyond being Oxy's portal for submitting all federal grants, the SRO and the Grants Office she was responsible for all mandatory training and compliance requirements. As the public face of the SRO, she had to walk a narrow path as both the advocate/mentor for faculty grant proposals but also acted to protect the College's fiduciary responsibility.

Ms. Mazzeo's multiple contributions were recognized by the College's "Administrator Achievement Award" in 2007. She retired in 2012 but returned regularly to campus for book club meetings and other social events. She is survived by her husband, Frank, four children, nine grandchildren, and two great-grandchildren.



Notes:

