

August 1, 2018

Dear Summer Research Conference Attendees,

On behalf of the Occidental College Undergraduate Research Center, it is my pleasure to welcome you to our 19<sup>th</sup> annual Summer Research Conference. We are proud today to recognize the achievements of our 2018 SRP cohort who, with guidance from their faculty mentors, have spent the last ten weeks seeking answers to a wide range of scholarly questions.

Since the 1980s, Occidental has supported undergraduate research in all disciplines, putting us at the forefront of national liberal arts colleges in this arena. Occidental's Strategic Plan names undergraduate research as an institutional priority, and today we celebrate the continuing success of that commitment.

With over 130 students, this is our largest conference to date. Putting together a conference of this size can be challenging, but it's also exciting for us to see how our program has grown. Making undergraduate research happen at Oxy is a campus-wide effort. Our students are supported not only by their faculty mentors and the Undergraduate Research Center, but also by administrators, staff, alumni, donors, and campus constituencies across the board. We are so grateful for everyone who contributes to making this program and the annual conference a success.

Thank you very much for taking time to attend and learn about our students' work and Occidental's commitment to the undergraduate research experience. We encourage you to visit the poster sessions and attend as many oral presentations as possible in order to fully appreciate the scope of Oxy's Summer Research Program.

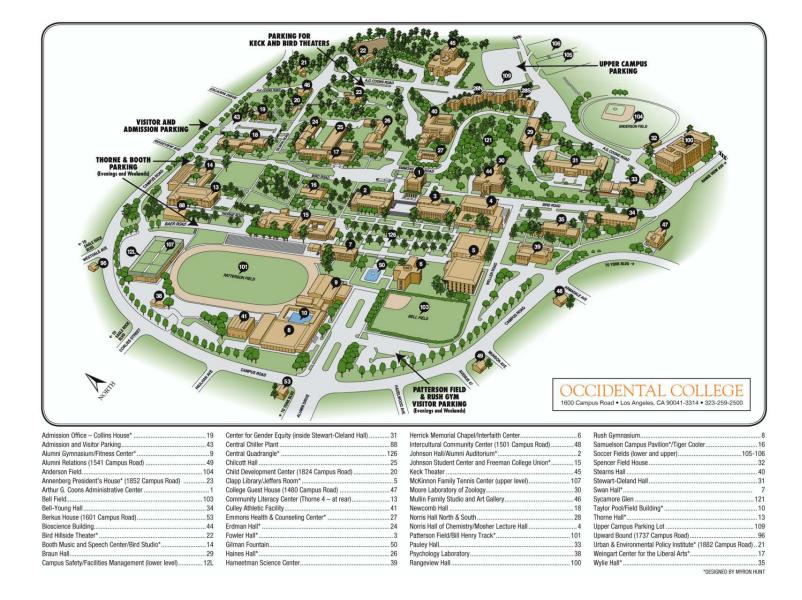
Congratulations to our student presenters and best wishes to everyone for an exciting day!

Janet Marrier

Janet Morris '87 Director of Undergraduate Research

### Undergraduate Research Center

1600 Campus Road, Los Angeles, CA 90041-3314 | 323-259-1414 | oxy.edu/undergraduate-research-center



### Locations:

Registration and name tag distribution will be located in the Academic Quad near the Clapp Library/Academic Commons Main Entrance, #5 on the map.

Oral Presentations will be held in Fowler Hall, #3.

Poster Presentations will be held on the 3<sup>rd</sup> floor of the Clapp Library/Academic Commons, #5 on the map.

Lunch will be served in the Gresham Dining Hall in the Johnson Student Center and Freeman College Union, #15 on the map. (Please enter through Branca Patio.)



## Occidental College 2018 Summer Undergraduate Research Conference Schedule of Events • August 1, 2018

All day, repeating	Screening of vintage scenes from Oxy, film provided by Special Collections. Main Floor, Academic Commons, circulation area.
8:00 AM	Poster set-up (for morning session) Library/Academic Commons, 3rd floor, "new" building side
8:30 AM	Registration and name badge pick-up Quad, tented table near Library/Academic Commons
9:00 AM	Oral Presentations, Session One Fowler Hall, Rooms 112, 202, 209
9:50 AM	Oral Presentations, Session Two Fowler Hall, Rooms 112, 202, 209
11:00 AM	Poster Presentations, Session One Library/Academic Commons, 3rd floor, "new" building side
	Intermission: Poster Presentations: Session One posters
12:00 – 12:30 PM	removed and Session Two posters set-up.
12:00 – 12:30 PM 12:30 PM	
	removed and Session Two posters set-up. Lunch, including brief remarks by Dean Wendy Sternberg
12:30 PM	removed and Session Two posters set-up. Lunch, including brief remarks by Dean Wendy Sternberg Gresham Dining Room (please enter through Branca Patio) Oral Presentations, Session Three
12:30 PM 1:30 PM	removed and Session Two posters set-up. Lunch, including brief remarks by Dean Wendy Sternberg Gresham Dining Room (please enter through Branca Patio) Oral Presentations, Session Three Fowler Hall, Rooms 112, 202, 209, 309 Oral Presentations, Session Four

## Oral Presentations: Session 1 (9:00 – 9:45 AM)

### Session 1A: Fowler 112 Session Chair: Andrew Shtulman

- 9:00 Conflicting beliefs about social categories Claudia Lechner Mentor: Andrew Shtulman, Psychology
- 9:00 Conflicting beliefs about social categories Robin Pounders Mentor: Andrew Shtulman, Psychology
- 9:20 When do science and intuition begin to conflict? Isabel Geddes Mentor: Andrew Shtulman and Andrew Young, Psychology
- 9:20 When do science and intuition begin to conflict?Claire WeiderMentor: Andrew Shtulman and Andrew Young, Psychology

### Session 1B: Fowler 202 Session Chair: Janet Scheel

- 9:00 The Lyapunov Spectrum for Turbulent Rayleigh-Bénard Convection Michael Kwan Mentor: Janet Scheel, Physics
- 9:15 Intrinsic Linking and Knotting in Directed Graphs Ben Pagano Mentor: Ramin Naimi, Mathematics
- 9:30 *Reconstructing the Landing of Philae on Comet 67P* **Emily Yue Liang** Mentor: Charles Oravec, Physics

### Session 1C: Fowler 209 Session Chair: Cheryl Okumura

- 9:00 Group A Streptococcus ruptures the lysosomal membrane in THP-1 macrophages using pore-forming toxins
   Scott Nishioka Mentor: Cheryl Okumura, Biology
- 9:15 Advancing the Zebrafish Model System Max Meade Mentor: Joseph Schulz, Biology
- 9:30 Fast and Venomous: A Kinematic Study of the Cone Snail's Prey-Hunting Mechanism lan Jan Mentor: Joseph Schulz, Biology

## Oral Presentations: Session 2 (9:50 – 10:50 AM)

### Session 2A: Fowler 112 Session Chair: Raul Navarro

- 9:50 Children's Thinking About Gendered Robots Kallyn Song-Nichols Mentor: Andrew Shtulman and Andrew Young, Psychology
- 10:05 Improving Automatic Bug Summarization For Maintainable Software Through Part-Of-Speech Tagging of Domain-Specific Words
   Luis Figueroa
   Mentor: Celia Chen, Computer Science
- 10:20 Comparing Word Embeddings and Information Retrieval Approaches to Affordance Extraction
   Lijia Li Mentor: Justin Li, Computer Science
- 10:35 Retail Store Price Uniformity Craig McCall Mentor: Brandon Lehr, Economics

### Session 2B: Fowler 202 Session Chair: Daniel Snowden-Ifft

- 9:50 Solar Robot: Optimizing the Cleaning of the Occidental Solar Array Olivia Addington Mentor: Gabriel Freiman, Physics
- 10:05 *Reducing Signal Noise in DRIFT-IIg Dark Matter Detector* **Peter Elia** Mentor: Daniel Snowden-Ifft, Physics
- 10:20 Background Simulations on the Detection of Dark Matter Hedda Zhao Mentor: Daniel Snowden-Ifft, Physics
- 10:35 Solar Demonstrator for Environmental Testing Jacob Gutierrez Mentor: Gabriel Freiman, Physics

### Session 2C: Fowler 209 Session Chair: Martha Matsuoka

- 9:50 *Holocaust Survivors in Post-war America: An Exploration into the Myth of Silence* **Greg Kleinman** Mentor: Marla Stone, History
- 10:05 Tragic Arithmetic: Nature of the Woven in Ancient Greek Tragedy as Mathematical Chloe Wheeler Mentor: Damian Stocking, Comparative Studies in Literature and Culture
- 10:20 Cultural Production and State Power: An Analysis of the PRC's Intervention in the Chinese Music Industry
  Olivia Wilk
  Mentor: Alexander Day, History
- 10:35 (anti)Blackness in Japan **Robertia Fujino Reid** Mentor: James Ford, English & Comparative Literary Studies
- 10:50 MAU MAU women Stories of survival from the remnants of the MAU MAU Revolution (1952-1964)
   Waruguru Waithira Mentor: Movindri Reddy, DWA

Posters will be on display on the 3<sup>rd</sup> floor of the Academic Commons

## 11:00 AM - 12:00 PM

### Poster

#### Number

- Geomagnetic Field Intensity Changes During an R-N Polarity Reversal Recorded by Mafic Lava Flows, Anahola, Kauai
   Yiming Zhang (Mentor: Scott Bogue, Geology)
- 2 Synthesis of Furanolactone Motifs by Photoredox and Lewis Acid Catalyzed Ketyl Radical Cyclization
  Paul Tomlinson (Mentor: Jeffrey Cannon, Chemistry)
- 4 Peer Popularity Among Emerging Adults in College Monica Chernoff (Mentor: Andrea Hopmeyer, Psychology)
- 5 A Case Study of Community-Led Development at East LA Community Corporation Gabriela Elliott (Mentor: Martha Matsuoka , UEP)
- 6 Morphometric Relationships for Macroinvertebrates of Southern California's Rocky Reefs Hannah Hoefs (Mentor: Daniel Pondella, Biology)
- 7 Chaotic Desires: Embodying Creative Anarchy in the Early Russian Avant-Garde Zoë Foster-La Du (Mentor: Christopher Gilman, CDLA)
- 8 *Methodologies for Photoredox-Catalyzed Cyclizations* **Katherine Forbes** (Mentor: Jeffrey Cannon, Chemistry)
- 9 Human Mammary Epithelial Cell Organoids as Models for Aging Related Functional Markers for Breast Cancer
   Divya Moolamalla (Mentors: Mark LaBarge and Michael Todhunter, City of Hope)
- 10Saving an Endangered Language Through TechnologyWilliam Chen(Mentor: Amy Holmes-Tagchungdarpa, Religious Studies)
- 12 Stereoselective Synthesis of Unnatural Amino Acids via an Auxiliary-Directed Enolate Alkylation Hailey Lister (Mentor: Jeffrey Cannon, Chemistry)
- Generating the Frequency of Past Earthquakes from Lake Sediment Cores in Grand Teton National Park, WY
   Aria Blumm (Mentor: Darren Larsen, Geology)

Posters will be on display on the 3<sup>rd</sup> floor of the Academic Commons

## 11:00 AM - 12:00 PM

Poster Number		
14	Comparing historical and current int and non-MPA sites in the Palos Verd	ertidal algae and invertebrate communities in MPA es Peninsula
	Dafna Erana	(Mentor: Daniel Pondella, Biology)
16	Are Artists Better Observers? Oliver Killeen	(Mentor: Carmel Levitan, Cognitive Science)
17	Electromechanical Reshaping of Cart Water Electrolysis on Tissue and Cell	ilage and the Molecular and Chemical Effects of Viability
	Lynn He	(Mentor: Michael Hill, Chemistry)
18	The Effect of Auditory Memory on M Alexander Levers	<i>usical Preference</i> (Mentor: Aleksandra Sherman, Cognitive Science)
19	5 5	al complex of aerobic respiration: interfacial ne c and the copper-A domain of cytochrome c
	Sierra Hunter	(Mentor: Michael Hill, Chemistry)
20	Magnetic Isolation of Pure Phagosor	nes
	Mitchell Johnson	(Mentor: Cheryl Okumura, Biology)
21	Not Your Average Biology Textbook:	
	Naomi Field	(Mentor: Shana Goffredi, Biology)
22	Impact of microenvironment water of weather of microenvironment water of the sectors and affiliated fungal pathoge	conditions on Coast Live Oak resistance to beetle
	Brianna Baker	(Mentor: Elizabeth Braker, Biology)
23	Producing Cytochrome P450 Mutant	
	Elleni Bekele	(Mentor: Andrew Udit, Chemistry)
24	Increasing Motor Coordination Throu Kyle Costello	ugh Induced Alpha Wave Neural Synchrony (Mentor: Aleksandra Sherman, Cognitive Science)

Posters will be on display on the 3<sup>rd</sup> floor of the Academic Commons

## 11:00 AM - 12:00 PM

Poster Number		
25	Exploring the internal jungle of Costa Rican symbionts discovered	Chrysomelid beetles: Potential bacterial
	Camille Brzechffa	(Mentor: Shana Goffredi, Biology)
26	Quantitative Atomic Force Microscopy Inve Bacterial Predator to Biofilm Prey	estigation of Adhesion of a Planktonic
	Ruby Yuyu Chen	(Mentor: Eileen Spain, Chemistry)
27	Exploring an Extended Hybrid Zone betwee Motmot	n Blue-capped Motmot's and Lesson's
	Miles Collins	(Mentor: John McCormack, Biology)
28	Nature's Classroom: An Exploration of Outo Brian Lavongtheung (Men	<i>door Education Programs</i> tor: Bevin Ashenmiller, Economics)
29	Identifying and Extracting Product-Specific Summaries	and Domain-Specific Words From Mozilla Bug
	Emily Tran	(Mentor: Celia Chen, Computer Science)
30	SCOPE LA: Building Grassroots Power in So Salma Rojas (Men	<i>uth Los Angeles</i> tor: Peter Dreier and Martha Matsuoka, UEP)
31	Characterization of Photoinduced Charae 1	ransfer Intermediates in an Electrochemical
	Solar Cell	
	Chandler Smith	(Mentor: Michael Hill, Chemistry)
32	Efforts Toward the Total Synthesis of Sweri Noel Jameson	lactone A (Mentor: Raul Navarro, Chemistry)
33	Differences in microbiome diversity and ab seed-eating insects from Costa Rica and Ca	
	Vanessa Rodriguez	(Mentor: Shana Goffredi, Biology)
34	Selective electrocatalytic hydrocarbon oxid nanoparticles	ation via high-valent iron centers in supported
	Kitty Lu	(Mentor: Michael Hill, Chemistry)

Posters will be on display on the 3<sup>rd</sup> floor of the Academic Commons

## 11:00 AM - 12:00 PM

Poster Number		
35	Deprivation Induced Hypera	ctivity: Exploring Energy Balance in Rats
	Rhea Bhatia	(Mentors: Dale Chapman and Nancy Dess, Psychology)
36	Group A Streptococcus Decr	eases Vacuolar ATPase Assembly
	Jimin Lee	(Mentor: Cheryl Okumura, Biology)
37	Probing Cytochrome P450 B	iocatalysis via Anaerobic Redox Titrations
	Crystal Liang	(Mentor: Andrew Udit, Chemistry)
38	Geographic Variation Amon	g Russet Nightingale-Thrushes
	David Mosack	(Mentor: John McCormack, Biology)
39	Using Virus Nanoparticles to Andrew Park	o develop an Alternative Antagonist to Heparin (Mentor: Andrew Udit, Chemistry)

## Oral Presentations: Session 3 (1:30 – 2:30 PM)

### Session 3A: Fowler 112 Session Chair: Susan Geffen

- 1:30 Sexual Identity Management Strategies Eric Malmquist Mentor: Brian Kim, Psychology
- 1:45 The Use of Intonation in Differentiating English Statements and Questions Across Different Language Families
   Connor Flynn Allison Mentor: Susan Geffen, Psychology
- 2:00 Sweetness as a Measure and Modulator of Emotionality in Rats Hannah Ash Mentor: Dale Chapman and Nancy Dess, Psychology

### Session 3B: Fowler 202 Session Chair: Julie Prebel

- 1:30 Techne and Being Ciaran Gilligan Mentor: Damian Stocking, Comparative Studies in Literature and Culture
- 1:45 The Aesthetic Argument for Clean Comedy Andrew Henson Mentor: Clair Morrissey, Philosophy
- 2:00 Fostering Community Through Creativity-Based Women's Organizations Nell Farrow Mentor: Julie Prebel, Writing and Rhetoric
- 2:15 The Bone of Contention
  K. Cancel
  Mentor: Zinzi Clemmons, English & Comparative Literary Studies

### Session 3C: Fowler 209 Session Chair: Robin Craggs

- 1:30 Engaging residents of affordable and supportive housing in tenant's rights advocacy and related public policy
   Hailey Gil Mentor: Peter Dreier, UEP
- 1:45 Organizing for Affordable Housing with ACCE Elizabeth Tibebu Mentor: Martha Matsuoka, UEP
- 2:00 Esperanza Community Housing Corporation: The Power of Community Luis Arias Mentor: Peter Dreier and Martha Matsuoka, UEP
- 2:15 Internship with LINC Housing Corporation Mia Recio Mentor: Peter Dreier and Martha Matsuoka, UEP

### Session 3D: Fowler 309 Session Chair: Eric Frank

- 1:30 Dramatizing Lawrence Asher Tessier Mentor: Sarah Kozinn, Theater
- 1:45 The Fight for Legitimacy of "Meaningless" Music: Understanding Trap Through the Lens of Bebop
   Laura Searles
   Mentor: David Kasunic, Music
- 2:00 *Murals, Heritage, and Cultural Exchange between Cairo and Highland Park* **Alex Duncan** Mentor: Eric Frank, Art History
- 2:15 Albert Kahn Out West Caroline Silverstein Mentor: Kelema Moses, Art History

## Oral Presentations: Session 4 (2:40 – 3:40 PM)

### Session 4A: Fowler 112 Session Chair: Richard Mora

- 2:40 Economic Self-Interest Re-Examined: Using Folk Economics to Understand Inequality
   Claire Krelitz
   Mentor: John Chung-En Liu, Sociology
- 2:55 ACLU Gender Inclusive Bathrooms Campaign Research Jack Tripp Mentor: Brody Fox, Media Arts and Culture
- 3:10 Afro-Caribbean Immigrant Motherhood: An Exploratory Study Anna Palmer Mentor: Richard Mora, Sociology
- 3:25 Decolonizing the Archive Kelsey Martin Mentor: Richard Mora, Sociology

### Session 4B: Fowler 202 Session Chair: D. Keith Naylor

- 2:40 Nietzsche and Silicon Valley Stoic Revivalism Olivia Tenney Mentor: Dale Wright, Religious Studies
- 2:55 Santería: Transnational Resilience and Adaptability of an Afro-Cuban Religion Eleanor Hofmeister Alberg Mentor: D. Keith Naylor, Religious Studies
- 3:10 Nepal: Homogenized Religion Through Tourism and Travel Literature Emily West Mentor: Amy Holmes-Tagchungdarpa, Religious Studies
- 3:25 The Resurgence of Catholic Exorcisms in the United States: The New Age and the Theological Rejection of Modernity
   Franny Hutchins
   Mentor: D. Keith Naylor, Religious Studies

### Session 4C: Fowler 209 Session Chair: Marcella Raney

- 2:40 Evaluation of Fundación Nutrir's malnutrition interventions in the community of Salta Capital, Argentina
   Luis Torres
   Mentor: Marcella Raney, Kinesiology
- 2:55 Mapping the distribution, behavior and oral microbiome of Galapagos mockingbirds
   Sammy Herdman Mentor: Amanda Zellmer, Biology
- 3:10 Using biodiversity databases to test habitat models of connectivity through a major urban wildlife corridor
  Roshni Katrak-Adefowora
  Mentor: Amanda Zellmer, Biology

### Session 4D: Fowler 309 Session Chair: Jeffrey Cannon

- 2:40 Dual Lewis Acid/Photoredox Catalyzed Ketyl Radical Cyclizations Anne Marie Crooke Mentor: Jeffrey Cannon, Chemistry
- 2:55 Synthesis of Indolizidines from L-Pyroglutamic acid using the Ireland–Claisen rearrangement and ring-closing metathesis Daniel Essayan Mentor: Jeff Cannon, Chemistry
- 3:10 Asymmetric Cobaltocenium Derivatives for Mediated Electrochemical Biocatalysis Joey Najjar Mentor: Andrew Udit, Chemistry
- 3:25 Oxidation of Hydrocarbons with a Laser-Ablated Catalyst Using a Custom Flowthrough Cell
   Ben Sappey Mentor: Michael Hill, Chemistry

Posters will be on display on the 3<sup>rd</sup> floor of the Academic Commons

Poster Number		
1	A Chronology of U.S. Asset Price Bubbles, Nelson Rayl	1865-1929 (Mentor: Andrew Jalil, Economics)
2	Whose Minds are We Studying? <b>Devon Mann</b>	(Mentor: Carmel Levitan, Cognitive Science)
3	3D Digital Archive of the Moore Lab Bird . Joshua Medina	Specimens (Mentor: John McCormack, Biology)
4	Docking and Molecular Dynamics Simulat	
	Jeremy Leung	(Mentor: Eileen Spain, Chemistry)
5	Hechicería and Hierarchy: Colonial Mexico Deviance and "Witchcraft"	an Women and Subversion of Power Through
	Pai Miller (Mentors: D. Keith	Naylor and Kristi Upson-Saia, Religious Studies)
6	How Emerging Adults Cope with Loneline	ss in College
	Lena Etoka	(Mentor: Andrea Hopmeyer, Psychology)
8	Cobaltocinium Derivatives as Mediators f	or Biocatalysis with P450 Enzymes
	Danica Gressel	(Mentor: Andrew Udit, Chemistry)
9	Cobaltocinium Derivatives as Mediators f	or Biocatalysis with P450 Enzymes
5	Ayanna Lynch	(Mentor: Andrew Udit, Chemistry)
10	Characteristics of cyt-c552 and CuA prote bead electrodes	ins on self-assembled thiol monolayers using gold
	Charlotte Cullip	(Mentor: Michael Hill, Chemistry)
11	The Greatest Documentary	
	Kendrick Shoji	(Mentor: Ari Laskin, Media Arts and Culture)
12	Synthesis of Allylic Alcohols/Condensation <b>David Collins</b>	n with L-pyroglutamic Acid (Mentor: Jeffrey Cannon, Chemistry)

Posters will be on display on the 3<sup>rd</sup> floor of the Academic Commons

Poster Number	
13	Potential Obstacles for Agriculture on Mars: Effects of Perchlorate on Seed Germination and Plant Health
	Joshua Beisel (Mentor: Gretchen North, Biology)
14	Biogeochemistry of CO2 and CH4 Related to Vegetation Health in Soils Eleanor Amann (Mentor: Christopher Oze, Geology)
15	Tension X      August Barringer      (Mentor: Mary Beth Heffernan, Art and Art History)
16	Genetic Analysis of Suppressors of Microtubule Defects in C. elegans Motor Neurons Michael Ozaki (Mentor: Renee Baran, Biology)
17	Diastereoselective Synthesis of Unnatural Amino Acid Derivatives via Auxiliary-Directed Enolate Alkylation
	Marc Kawada (Mentor: Jeffrey Cannon, Chemistry)
18	Housekeys Not Handcuffs, Not Shelters: LA CAN's Fight for Housing as a Human Right and the Decriminalization of Unhoused People
	Melissa Mateo(Mentors: Peter Dreier and Martha Matsuoka, UEP)
19	Multisensory Processing and Sequence Learning
	Kirsten Laursen (Mentor: Carmel Levitan, Cognitive Science)
20	Efforts to Develop a Thiourea-Catalyzed Addition to ortho-Quinone MethidesCheyenne Orozco(Mentor: Raul Navarro, Chemistry)
22	Non Profits and Los Angeles' Housing Crisis: Evaluating Coalition for Economic Survival Tori Funk (Mentors: Peter Dreier and Martha Matsuoka, UEP)
23	Native bee diversity on Eriogonum fasciculatum in Los Angeles CountyCora Davies(Mentor: Elizabeth Braker, Biology)
24	Beyond Teeth: Examining Access to Medicaid Dental Benefits in Los Angeles County Elena Daniel, Ryan Lee and Ben Smith (Mentors: Heng Lam Foong and Bhavna Shamasunder, UEP)

Posters will be on display on the 3<sup>rd</sup> floor of the Academic Commons

Poster Number		
25	Efforts to Develop a Thiourea-catalyzed Ado Mario Lemus	dition to ortho-Quinone Methides (Mentor: Raul Navarro, Chemistry)
26	Heat Tolerance Related to Leaf Size and Sho Meike Buhaly	ape of Varying Tropical and Temperate Trees (Mentor: Gretchen North, Biology)
27	Delta Sets of Non-Minimal Numerical Monc Vena Zhang	oid (Mentor: Jay Daigle, Mathematics)
28	Morphological Variation in the Spot-crowne	ed Woodcreeper (Mentor: John McCormack, Biology)
29	Synthesizing furanolactone motifs via photo Warren Zhang	ocatalyzed redox (Mentor: Jeffrey Cannon, Chemistry)
30	Biogeochemistry of Perchlorate in Martian Eddy Dabsys	Regolith (Mentor: Christopher Oze, Geology)
31	Fungus Complex in Los Angeles, California	e (Coleoptera: Scolytinae) - Phytopathogenic
	Diego Zapata	(Mentor: Gretchen North, Biology)
32	Electrochemical Hydrolysis of Adipose Tissu Anna Stokolosa	е (Mentor: Michael Hill, Chemistry)
33	Along strike variation in exhumation history Spencer Patrick	v in Far Western Nepal's Main Central Thrust (Mentor: Ann Blythe, Geology)
34	Novel Anticoagulants Using Sulfated Dendr Ali Vogelaar	ons on Virus-like Particles (Mentor: Andrew Udit, Chemistry)
35	Targeted knockout of katanin genes in C. el Iris Zhang	egans by CRISPR and RNAi (Mentor: Renee Baran, Biology)
36	Total Synthesis of DAB-1 Scott Niman	(Mentor: Jeffrey Cannon, Chemistry)

Posters will be on display on the 3<sup>rd</sup> floor of the Academic Commons

Poster Number		
37	Policy Advocacy: The LAANE Model	
	Emma Yudelevitch	(Mentor: Peter Dreier and Martha Matsuoka, UEP)
38	The Flight of the Bumblebee: Shifting	g Species Distributions in Southern California
	Bryce Lewis-Smith	(Mentor: Elizabeth Braker, Biology)
39	LA Voice	
	Kathy Sorto	(Mentor: Peter Dreier, UEP)

	<b>.</b> .		Poster or
Last Name	Session	Time	Room Number
Addington	Oral 2B	9:50 AM	Fowler 202
Alberg	Oral 4B	2:55 PM	Fowler 202
Allison	Oral 3A	1:45 PM	Fowler 112
Amann	Poster 2	3:45 PM	14
Arias	Oral 3C	2:00 PM	Fowler 209
Ash	Oral 3A	2:00 PM	Fowler 112
Baker	Poster 1	11:00 AM	22
Barringer	Poster 2	3:45 PM	15
Beisel	Poster 2	3:45 PM	13
Bekele	Poster 1	11:00 AM	23
Bhatia	Poster 1	11:00 AM	35
Blumm	Poster 1	11:00 AM	13
Brzechffa	Poster 1	11:00 AM	25
Buhaly	Poster 2	3:45 PM	26
Cancel	Oral 3B	2:15 PM	Fowler 202
Chen, R	Poster 1	11:00 AM	26
Chen, W	Poster 1	11:00 AM	10
Chernoff	Poster 1	11:00 AM	4
Collins, D	Poster 2	3:45 PM	12
Collins, M	Poster 1	11:00 AM	27
Costello	Poster 1	11:00 AM	24
Crooke	Oral 4D	2:40 PM	Fowler 309
Cullip	Poster 2	3:45 PM	10
Dabsys	Poster 2	3:45 PM	30
Daniel et al.	Poster 2	3:45 PM	24
Davies	Poster 2	3:45 PM	23
Duncan	Oral 3D	2:00 PM	Fowler 309
Elia	Oral 2B	10:05 AM	Fowler 202
Elliott	Poster 1	11:00 AM	5
Erana	Poster 1	11:00 AM	14
Essayan	Oral 4D	2:55 PM	Fowler 309
Etoka	Poster 2	3:45 PM	6
Farrow	Oral 3B	2:00 PM	Fowler 202
Field	Poster 1	11:00 AM	21
Figueroa	Oral 2A	10:05 AM	Fowler 112
Forbes	Poster 1	11:00 AM	8
Foster-La Du	Poster 1	11:00 AM	7
Funk	Poster 2	3:45 PM	22
Geddes	Oral 1A	9:20 AM	Fowler 112
Gil	Oral 3C	1:30 PM	Fowler 209

			Poster or
Last Name	Session	Time	Room Number
Gilligan	Oral 3B	1:30 PM	Fowler 202
Gressel	Poster 2	3:45 PM	8
Gutierrez	Oral 2B	10:35 AM	Fowler 202
Не	Poster 1	11:00 AM	17
Henson	Oral 3B	1:45 PM	Fowler 202
Herdman	Oral 4C	2:55 PM	Fowler 209
Hoefs	Poster 1	11:00 AM	6
Hunter	Poster 1	11:00 AM	19
Hutchins	Oral 4B	3:25 PM	Fowler 202
Jameson	Poster 1	11:00 AM	32
Jan	Oral 1C	9:30 AM	Fowler 209
Johnson	Poster 1	11:00 AM	20
Katrak-Adefowora	Oral 4C	3:10 PM	Fowler 209
Kawada	Poster 2	3:45 PM	17
Killeen	Poster 1	11:00 AM	16
Kleinman	Oral 2C	9:50 AM	Fowler 209
Krelitz	Oral 4A	2:40 PM	Fowler 112
Kwan	Oral 1B	9:00 AM	Fowler 202
Laursen	Poster 2	3:45 PM	19
Lavongtheung	Poster 1	11:00 AM	28
Lechner	Oral 1A	9:00 AM	Fowler 112
Lee, J	Poster 1	11:00 AM	36
Lee, R et al.	Poster 2	3:45 PM	24
Lemus	Poster 2	3:45 PM	25
Leung	Poster 2	3:45 PM	4
Levers	Poster 1	11:00 AM	18
Lewis-Smith	Poster 2	3:45 PM	38
Li	Oral 2A	10:20 AM	Fowler 112
Liang, C	Poster 1	11:00 AM	37
Liang, E	Oral 1B	9:30 AM	Fowler 202
Lister	Poster 1	11:00 AM	12
Lu, K	Poster 1	11:00 AM	34
Lu, L	Poster 2	3:45 PM	28
Lynch	Poster 2	3:45 PM	9
Malmquist	Oral 3A	1:30 PM	Fowler 112
Mann	Poster 2	3:45 PM	2
Martin	Oral 4A	3:45 PM 3:25 PM	Fowler 112
Mateo	Poster 2	3:45 PM	18 Fourier 112
McCall	Oral 2A	10:35 AM	Fowler 112 Fowler 209

Leet Newse	Constant	<b>T</b> :	Poster or
Last Name	Session	Time	Room Number
Medina	Poster 2	3:45 PM	3
Miller	Poster 2	3:45 PM	5
Moolamalla	Poster 1	11:00 AM	9
Mosack	Poster 1	11:00 AM	38
Najjar	Oral 4D	3:10 PM	Fowler 309
Niman	Poster 2	3:45 PM	36
Nishioka	Oral 1C	9:00 AM	Fowler 209
Orozco	Poster 2	3:45 PM	20
Ozaki	Poster 2	3:45 PM	16
Pagano	Oral 1B	9:15 AM	Fowler 202
Palmer	Oral 4A	3:10 PM	Fowler 112
Park	Poster 1	11:00 AM	39
Patrick	Poster 2	3:45 PM	33
Pounders	Oral 1A	9:00 AM	Fowler 112
Rayl	Poster 2	3:45 PM	1
Recio	Oral 3C	2:15 PM	Fowler 209
Reid	Oral 2C	10:35 AM	Fowler 209
Rodriguez	Poster 1	11:00 AM	33
Rojas	Poster 1	11:00 AM	30
Sappey	Oral 4D	3:25 PM	Fowler 309
Searles	Oral 3D	1:45 PM	Fowler 309
Shoji	Poster 2	3:45 PM	11
Silverstein	Oral 3D	2:15 PM	Fowler 309
Smith, B et al.	Poster 2	3:45 PM	24
Smith, C	Poster 1	11:00 AM	31
Song-Nichols	Oral 2A	9:50 AM	Fowler 112
Sorto	Poster 2	3:45 PM	39
Stokolosa	Poster 2	3:45 PM	32
Tenney	Oral 4B	2:40 PM	Fowler 202
Tessier	Oral 3D	1:30 PM	Fowler 309
Tibebu	Oral 3C	1:45 PM	Fowler 209
Tomlinson	Poster 1	11:00 AM	2
Torres	Oral 4C	2:40 PM	Fowler 209
			29
Tran	Poster 1	11:00 AM	
Tripp	Oral 4A	2:55 PM	Fowler 112
Vogelaar	Poster 2	3:45 PM	34
Waithira	Oral 2C	10:50 AM	Fowler 209
Weider	Oral 1A	9:20 AM	Fowler 112
West	Oral 4B	3:10 PM	Fowler 202
Wheeler	Oral 2C	10:05 AM	Fowler 209

			Poster or	
Last Name	Session	Time	Room Number	
Wilk	Oral 2C	10:20 AM	Fowler 209	
Yudelevitch	Poster 2	3:45 PM	37	
Zapata	Poster 2	3:45 PM	31	
Zhang, I	Poster 2	3:45 PM	35	
Zhang, V	Poster 2	3:45 PM	27	
Zhang, W	Poster 2	3:45 PM	29	
Zhang, Y	Poster 1	11:00 AM	1	
Zhao	Oral 2B	10:20 AM	Fowler 202	

# Student Presenters

#### Olivia Addington '21

#### Solar Robot: Optimizing the Cleaning of the Occidental Solar Array Fowler 202, 9:50 AM



Mentor: Gabriel Freiman Major: Undeclared Funding: Norris Research Endowment

#### **Eleanor Hofmeister Alberg '19**

Santería: Transnational Resilience and Adaptability of an Afro-Cuban Religion Fowler 202, 2:55 PM



Mentor: D. Keith Naylor Majors: Religious Studies, Spanish Funding: Ford Research Mentor's Endowment

Connor Flynn Allison '20

The Use of Intonation in Differentiating English Statements and Questions Across Different Language Families Fowler 112, 1:45 PM



Mentor: Susan Geffen Major: Psychology Funding: Summer Undergraduate Research Fellowship

Eleanor Amann '19

Biogeochemistry of CO2 and CH4 Related to Vegetation Health in Soils

Academic Commons, Session 2, Poster 14



Mentor: Christopher Oze Major: Geology (Environmental Science concentration) Funding: Summer Undergraduate Research Fellowship

#### Luis Arias '21

Esperanza Community Housing Corporation: The Power of Community Fowler 209, 2:00 PM



Mentors: Peter Dreier and Martha Matsuoka Major: Undeclared Funding: The Paul K. and Evalyn E. Cook Richter Trust

#### Hannah Ash '19

Sweetness as a Measure and Modulator of Emotionality in Rats Fowler 112, 2:00 PM



Mentors: Dale Chapman and Nancy Dess Major: Psychology Funding: Summer Undergraduate Research Fellowship

#### Brianna Baker '19

Impact of microenvironment water conditions on Coast Live Oak resistance to beetle vectors and affiliated fungal pathogen Academic Commons, Session 1, Poster 22



Mentor: Elizabeth Braker Major: Biology (Environmental Science concentration) Funding: Sarah H. Roberts '68 and David H. Roberts '67 Annual Research Fellowship in Environmental Sciences

#### August Barringer '19

**Tension X** Academic Commons, Session 2, Poster 15



Mentor: Mary Beth Heffernan Major: Art and Art History Funding: Mellon Foundation: Arts, Humanities and Social Science

#### Joshua Beisel '20

Potential Obstacles for Agriculture on Mars: Effects of Perchlorate on Seed Germination and Plant Health Academic Commons, Session 2, Poster 13



Mentor: Gretchen North Major: Biology Funding: National Science Foundation, COSMOS Grant

#### Elleni Bekele '20

#### Producing Cytochrome P450 Mutants for Biocatalysis

Academic Commons, Session 1, Poster 23



Mentor: Andrew Udit Major: Chemistry Funding: Fletcher-Jones Chemistry and Biochemistry Research Endowment

#### Rhea Bhatia '19

Deprivation Induced Hyperactivity: Exploring Energy Balance in Rats Academic Commons, Session 1, Poster 35



Mentors: Dale Chapman and Nancy Dess Major: Psychology Funding: Summer Undergraduate Research Fellowship

#### Aria Blumm '19

Generating the Frequency of Past Earthquakes from Lake Sediment Cores in Grand Teton National Park, WY Academic Commons, Session 1, Poster 13



Mentor: Darren Larsen Majors: Environmental Science, Geology Funding: Sarah H. Roberts '68 and David H. Roberts '67 Annual Research Fellowship in Environmental Sciences

#### Camille Brzechffa '20

Exploring the internal jungle of Costa Rican Chrysomelid beetles: Potential bacterial symbionts discovered Academic Commons, Session 1, Poster 25



Mentor: Shana Goffredi Major: Biology Funding: Norris Research Endowment

Meike Buhaly '19

Heat Tolerance Related to Leaf Size and Shape of Varying Tropical and Temperate Trees Academic Commons, Session 2, Poster 26



Mentor: Gretchen North Major: Biology Funding: Summer Undergraduate Research Fellowship

K. Cancel '19

The Bone of Contention Fowler 202, 2:15 PM



Mentor: Zinzi Clemmons Majors: English & Comparative Literary Studies, Theater Funding: Argonaut Summer Research Award in Creative Writing

Ruby Yuyu Chen '19

Quantitative Atomic Force Microscopy Investigation of Adhesion of a Planktonic Bacterial Predator to Biofilm Prey Academic Commons, Session 1, Poster 26

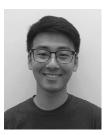


Mentor: Eileen Spain Major: Chemistry Funding: Department of Health and Human Services, National Institutes of Health

William Chen '19

### Saving an Endangered Language Through Technology

Academic Commons, Session 1, Poster 10



Mentor: Amy Holmes-Tagchungdarpa Major: Computer Science Funding: Kneeland Ministry Prize

#### Monica Chernoff '20

Peer Popularity Among Emerging Adults in College Academic Commons, Session 1, Poster 4



Mentor: Andrea Hopmeyer Major: Psychology Funding: Gift of Dr. Andrew F. Newcomb '75

#### **David Collins '20**

Synthesis of Allylic Alcohols/Condensation with Lpyroglutamic Acid Academic Commons, Session 2, Poster 12



Mentor: Jeffrey Cannon Major: Biochemistry Funding: Summer Undergraduate Research Fellowship

Miles Collins '19

#### Exploring an Extended Hybrid Zone between Blue-capped Motmot's and Lesson's Motmot Academic Commons, Session 1,

Poster 27



Mentor: John McCormack Major: Biochemistry Funding: NSF Grant to Dr. McCormack, Integrating Undergraduate Research, Citizen Scientists

Kyle Costello '19

#### Increasing Motor Coordination Through Induced Alpha Wave Neural Synchrony

Academic Commons, Session 1, Poster 24



Mentor: Aleksandra Sherman Major: Cognitive Science Funding: Ford Research Mentor's Endowment

#### Anne Marie Crooke '19

Dual Lewis Acid/Photoredox Catalyzed Ketyl Radical Cyclizations Fowler 309, 2:40 PM



Mentor: Jeffrey Cannon Major: Biochemistry Funding: The Kenneth T. and Eileen L. Norris Foundation Science Scholar

Charlotte Cullip '19

#### Characteristics of cyt-c552 and CuA proteins on self-assembled thiol monolayers using gold bead electrodes

Academic Commons, Session 2, Poster 10



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

Eddy Dabsys '19

### Biogeochemistry of Perchlorate in Martian Regolith

Academic Commons, Session 2, Poster 30



Mentor: Christopher Oze Major: Environmental Geology Funding: Ford Research Mentor's Endowment

Elena Daniel '20

#### Beyond Teeth: Examining Access to Medicaid Dental Benefits in Los Angeles County Academic Commons, Session 2,

Academic Commons, Session 2, Poster 24



Mentors: Heng Lam Foong and Bhavna Shamasunder Major: Kinesiology Funding: UEP, Public Health Internship

#### Cora Davies '19

Native bee diversity on *Eriogonum fasciculatum* in Los Angeles County Academic Commons, Session 2, Poster 23



Mentor: Elizabeth Braker Major: Biology Funding: Norris Research Endowment

Alex Duncan '20

Murals, Heritage, and Cultural Exchange between Cairo and Highland Park Fowler 309, 2:00 PM



Mentor: Eric Frank Major: Art History Funding: Mellon Foundation: Arts and Urban Experience

#### Peter Elia '21

#### Reducing Signal Noise in DRIFT-IIg Dark Matter Detector Fowler 202, 10:05 AM



Mentors: Daniel Snowden-Ifft and Jean-Luc Gauvreau Major: Physics Funding: Summer Undergraduate Research Fellowship

Gabriela Elliott '19

A Case Study of Community-Led Development at East LA Community Corporation Academic Commons, Session 1, Poster 5



Mentor: Martha Matsuoka Major: Urban and Environmental Policy Funding: UEP, Affordable Housing Internship

#### Dafna Erana '21

Comparing historical and current intertidal algae and invertebrate communities in MPA and non-MPA sites in the Palos Verdes Peninsula Academic Commons, Session 1, Poster 14



Mentor: Daniel Pondella Major: Biology Funding: Virginia Reid Moore '37 Summer Research Fellowship

#### Daniel Essayan '19

Synthesis of Indolizidines from L-Pyroglutamic acid using the Ireland-Claisen rearrangement and ring-closing metathesis Fowler 309, 2:55 PM



Mentor: Jeffrey Cannon Major: Chemistry Funding: Amgen Summer Fellowship

Lena Etoka '20

How Emerging Adults Cope with Loneliness in College Academic Commons, Session 2, Poster 6



Mentor: Andrea Hopmeyer Majors: Psychology, Sociology Funding: Summer Undergraduate Research Fellowship

Nell Farrow '19

Fostering Community Through Creativity-Based Women's Organizations Fowler 202, 2:00 PM



Mentor: Julie Prebel Major: Art History Funding: Mellon Foundation: Arts and Urban Experience

Naomi Field '20

Not Your Average Biology Textbook: Learning Science through Art Academic Commons, Session 1, Poster 21



Mentor: Shana Goffredi Majors: Studio Art, Biology Funding: Ford Research Mentor's Endowment

#### Luis Figueroa '19

Improving Automatic Bug Summarization For Maintainable Software Through Part-Of-Speech Tagging of Domain-Specific Words Fowler 112, 10:05 AM



Mentor: Celia Chen Majors: Mathematics, Computer Science Funding: Ford Research Mentor's Endowment

#### Katherine Forbes '18

Methodologies for Photoredox-Catalyzed Cyclizations Academic Commons, Session 1, Poster 8



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

#### Zoë Foster-La Du '19

Chaotic Desires: Embodying Creative Anarchy in the Early **Russian Avant-Garde** Academic Commons. Session 1. Poster 7



Mentor: Christopher Gilman Major: Critical Theory and Social Justice Funding: Mellon Foundation: Arts, Humanities and Social Science

#### Tori Funk '20

Non Profits and Los Angeles' Housing Crisis: Evaluating Coalition for Economic Survival Academic Commons, Session 2, Poster 22



Mentors: Peter Dreier and Martha Matsuoka Majors: Economics, Politics Funding: UEP, Affordable Housing Internship

#### Isabel Geddes '20

When do science and intuition begin to conflict? Fowler 112, 9:20 AM



Mentors: Andrew Shtulman and Andrew Young Major: Cognitive Science Funding: James S. McDonnell Foundation

Hailey Gil '20

Engaging residents of affordable and supportive housing in tenant's rights advocacy and related public policy Fowler 209, 1:30 PM



Mentor: Peter Dreier Major: Urban and Environmental Policy Funding: The Paul K. and Evalyn E. Cook Richter Trust

#### Ciaran Gilligan '19

**Techne and Being** Fowler 202, 1:30 PM



Mentor: Damian Stocking Major: Comparative Studies in Literature and Culture Funding: Arnston Memorial Esssay Award

Danica Gressel '18

Cobaltocinium Derivatives as Mediators for Biocatalysis with P450 Enzymes Academic Commons, Session 2, Poster 8



Mentor: Andrew Udit Major: Chemistry Funding: John Stauffer Summer Research in Chemistry/Biochemistry Endowment

Jacob Gutierrez '19

#### Solar Demonstrator for **Environmental Testing** Fowler 202, 10:35 AM



Mentor: Gabriel Freiman Major: Physics Funding: National Science Foundation, COSMOS Grant

#### Lynn He '18

Electromechanical Reshaping of Cartilage and the Molecular and **Chemical Effects of Water** Electrolysis on Tissue and Cell Viability Academic Commons, Session 1, Poster 17



Mentor: Michael Hill Major: Chemistry Funding: Chemistry and Biochemistry Summer Research Fellowship

#### Andrew Henson '20

The Aesthetic Argument for Clean Comedv Fowler 202, 1:45 PM



Mentor: Clair Morrissey Major: Philosophy Funding: Ford Research Mentor's Endowment

#### Sammy Herdman '19

Mapping the distribution, behavior and oral microbiome of Galapagos mockingbirds Fowler 209, 2:55 PM



Mentor: Amanda Zellmer Major: Biology (Environmental Science concentration) Funding: The Paul K. and Evalyn E. Cook Richter Trust

#### Hannah Hoefs '20

Morphometric Relationships for Macroinvertebrates of Southern California's Rocky Reefs Academic Commons, Session 1, Poster 6



Mentor: Daniel Pondella Major: Biology (Marine emphasis) Funding: Virginia Reid Moore '37 Summer Research Fellowship

#### Sierra Hunter '21

Modeling electron flow in the terminal complex of aerobic respiration: interfacial electron transfer between cytochrome c and the copper-A domain of cytochrome c oxidase Academic Commons, Session 1, Poster 19



Mentors: Michael Hill and Andrew Udit Major: Chemistry Funding: John Stauffer Summer Research in Chemistry/Biochemistry Endowment

#### Franny Hutchins '19

The Resurgence of Catholic Exorcisms in the United States: The New Age and the Theological Rejection of Modernity Fowler 202, 3:25 PM



Mentor: D. Keith Naylor Major: Religious Studies Funding: Ford Research Mentor's Endowment

#### Noel Jameson '19

# Efforts Toward the Total Synthesis of Swerilactone A

Academic Commons, Session 1, Poster 32



Mentor: Raul Navarro Major: Chemistry Funding: American Chemical Society Undergraduate Research Fellowship

lan Jan '20

Fast and Venomous: A Kinematic Study of the Cone Snail's Prey-Hunting Mechanism Fowler 209, 9:30 AM



Mentor: Joseph Schulz Major: Undeclared Funding: Summer Undergraduate Research Fellowship

Mitchell Johnson '19

#### Magnetic Isolation of Pure Phagosomes Academic Commons, Session 1, Poster 20



Mentor: Cheryl Okumura Major: Biochemistry Funding: Chemistry and Biochemistry Summer Research Fellowship

#### Roshni Katrak-Adefowora '19

Using biodiversity databases to test habitat models of connectivity through a major urban wildlife corridor Fowler 209. 3:10 PM



Mentor: Amanda Zellmer Major: Biology (Environmental Science concentration) Funding: Sarah H. Roberts '68 and David H. Roberts '67 Annual Research Fellowship in Environmental Sciences

#### Marc Kawada '20

Diastereoselective Synthesis of Unnatural Amino Acid Derivatives via Auxiliary-Directed Enolate Alkylation

Academic Commons, Session 2, Poster 17



Mentor: Jeffrey Cannon Major: Chemistry Funding: Summer Undergraduate Research Fellowship

#### **Oliver Killeen '19**

#### Are Artists Better Observers?

Academic Commons, Session 1, Poster 16



Mentor: Carmel Levitan Major: Cognitive Science Funding: Summer Undergraduate Research Fellowship

#### Greg Kleinman '20

Holocaust Survivors in Post-war America: An Exploration into the Myth of Silence Fowler 209, 9:50 AM



Mentor: Marla Stone Majors: History, Economics Funding: Ray A. Billington Endowment

#### Claire Krelitz '19

Economic Self-Interest Re-Examined: Using Folk Economics to Understand Inequality Fowler 112, 2:40 PM



Mentor: John Chung-En Liu Majors: Sociology, Politics Funding: Ford Research Mentor's Endowment

#### Michael Kwan '20

The Lyapunov Spectrum for Turbulent Rayleigh-Bénard Convection Fowler 202, 9:00 AM



Mentor: Janet Scheel Majors: Physics, Music Funding: National Science Foundation, COSMOS Grant

Kirsten Laursen '19

#### Multisensory Processing and Sequence Learning Academic Commons, Session 2,

Poster 19



Mentor: Carmel Levitan Major: Cognitive Science Funding: Summer Undergraduate Research Fellowship

#### Brian Lavongtheung '19

Nature's Classroom: An Exploration of Outdoor Education Programs Academic Commons, Session 1, Poster 28



Mentor: Bevin Ashenmiller Major: Biology Funding: Gift from Naomi N. Kurata and Fred Kurata, M.D. '71 (Kurata Economics/Biology Fund)

Claudia Lechner '19

### Conflicting beliefs about social categories Fowler 112, 9:00 AM



Mentor: Andrew Shtulman Major: Psychology Funding: James S. McDonnell Foundation

#### Jimin Lee '20

Group A Streptococcus Decreases Vacuolar ATPase Assembly Academic Commons, Session 1, Poster 36



Mentor: Cheryl Okumura Major: Biology Funding: American Heart Association

#### Ryan Lee '19

Beyond Teeth: Examining Access to Medicaid Dental Benefits in Los Angeles County Academic Commons, Session 2, Poster 24



Mentors: Heng Lam Foong and Bhavna Shamasunder Major: Biology Funding: UEP, Public Health Internship

#### Mario Lemus '19

#### Efforts to Develop a Thioureacatalyzed Addition to ortho-Quinone Methides Academic Commons, Session 2, Poster 25



Mentor: Raul Navarro Major: Biochemistry Funding: Priscilla and Don Smith Summer Research Endowment

#### Jeremy Leung '19

Mechanisms of Adhesion Between Bacterial Pili Proteins and Chemically Diverse Surfaces Using Docking and Molecular Dynamics Simulations

Academic Commons, Session 2, Poster 4



Mentor: Eileen Spain Major: Chemistry Funding: Chemistry and Biochemistry Summer Research Fellowship

#### Alexander Levers '19

#### The Effect of Auditory Memory on Musical Preference Academic Commons, Session 1,

Poster 18



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

#### Bryce Lewis-Smith '20

The Flight of the Bumblebee: Shifting Species Distributions in Southern California Academic Commons, Session 2, Poster 38



Mentor: Elizabeth Braker Major: Biology Funding: Summer Undergraduate Research Fellowship

#### Lijia Li '20

Comparing Word Embeddings and Information Retrieval Approaches to Affordance Extraction Fowler 112, 10:20 AM



Mentor: Justin Li Major: Computer Science Funding: Ford Research Mentor's Endowment

Crystal Liang '19

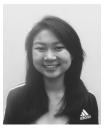
Probing Cytochrome P450 Biocatalysis via Anaerobic Redox Titrations Academic Commons, Session 1, Poster 37



Mentor: Andrew Udit Major: Biochemistry Funding: National Science Foundation, COSMOS Grant

Emily Yue Liang '21

Reconstructing the Landing of Philae on Comet 67P Fowler 202, 9:30 AM



Mentor: Charles Oravec Major: Undeclared Funding: Ford Research Mentor's Endowment

Hailey Lister '20

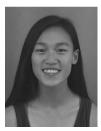
Stereoselective Synthesis of Unnatural Amino Acids via an Auxiliary-Directed Enolate Alkylation Academic Commons, Session 1, Poster 12



Mentor: Jeffrey Cannon Major: Undeclared Funding: Summer Undergraduate Research Fellowship

#### Kitty Lu '21

Selective electrocatalytic hydrocarbon oxidation via highvalent iron centers in supported nanoparticles Academic Commons, Session 1, Poster 34



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

#### Leeza Lu '21

# Morphological Variation in the Spot-crowned Woodcreeper

Academic Commons, Session 2, Poster 28



Mentor: John McCormack Majors: Biology, Comparative Studies in Literature and Culture Funding: NSF Grant to Dr. McCormack, Integrating Undergraduate Research, Citizen Scientists

Ayanna Lynch '20

#### Cobaltocinium Derivatives as Mediators for Biocatalysis with P450 Enzymes Academic Commons, Session 2, Poster 9



Mentor: Andrew Udit Major: Chemistry Funding: Fletcher-Jones Chemistry and Biochemistry Research Endowment

#### Eric Malmquist '19

Sexual Identity Management Strategies Fowler 112, 1:30 PM



Mentor: Brian Kim Major: Psychology Funding: Ford Research Mentor's Endowment

#### Devon Mann '19

### Whose Minds are We Studying?

Academic Commons, Session 2, Poster 2



Mentor: Carmel Levitan Major: Cognitive Science Funding: Mellon Foundation: Digital Liberal Arts Grant

#### Kelsey Martin '19

Decolonizing the Archive Fowler 112, 3:25 PM



Mentor: Richard Mora Major: Sociology Funding: Mellon Foundation: Arts, Humanities and Social Science

Melissa Mateo '21

House keys Not Handcuffs, Not Shelters: LA CAN's Fight for Housing as a Human Right and the Decriminalization of Unhoused People Academic Commons, Session 2, Poster 18



Mentors: Peter Dreier and Martha Matsuoka Major: Urban and Environmental Policy Funding: UEP, Affordable Housing Internship

#### Craig McCall '19

#### Retail Store Price Uniformity Fowler 112, 10:35 AM



Mentor: Brandon Lehr Majors: Economics, Mathematics Funding: Undergraduate Research Fund for Corporate Responsibility

#### Max Meade '19

Advancing the Zebrafish Model System Fowler 209, 9:15 AM



Mentor: Joseph Schulz Major: Biology Funding: Summer Undergraduate Research Fellowship

#### Joshua Medina '19

**3D Digital Archive of the Moore Lab Bird Specimens** Academic Commons, Session 2, Poster 3



Mentor: John McCormack Major: Comparative Studies in Literature and Culture Funding: Ford Research Mentor's Endowment

#### Pai Miller '19

#### Hechicería and Hierarchy: Colonial Mexican Women and Subversion of Power Through Deviance and "Witchcraft"

Academic Commons, Session 2, Poster 5



Mentors: D. Keith Naylor and Kristi Upson-Saia Major: Religious Studies Funding: Arnston Memorial Essay Award

#### Divya Moolamalla '20

#### Human Mammary Epithelial Cell Organoids as Models for Aging Related Functional Markers for Breast Cancer Academic Commons, Session 1, Poster 9

Mentors: Mark LaBarge and Michael Todhunter, City of Hope Major: English (Pre Med) Funding: Gifts to the Undergraduate Research Center

#### David Mosack '19

**Geographic Variation Among Russet Nightingale-Thrushes** Academic Commons, Session 1, Poster 38



Mentor: John McCormack Majors: Biology, English Funding: NSF Grant to Dr. McCormack, Integrating Undergraduate Research, Citizen Scientists Joey Najjar '19

Asymmetric Cobaltocenium Derivatives for Mediated Electrochemical Biocatalysis Fowler 309, 3:10 PM



Mentor: Andrew Udit Major: Chemistry Funding: The Kenneth T. and Eileen L. Norris Foundation Science Scholar

#### Scott Niman '18

**Total Synthesis of DAB-1** Academic Commons, Session 2, Poster 36



Mentor: Jeffrey Cannon Major: Chemistry Funding: Donald R. Deardorff Endowed Undergraduate Summer Research Fellowship for Chemistry

Scott Nishioka '19

Group A Streptococcus ruptures the lysosomal membrane in THP-1 macrophages using pore-forming toxins Fowler 209, 9:00 AM



Mentor: Cheryl Okumura Major: Biochemistry Funding: The Fletcher Jones Foundation Science Scholar

Cheyenne Orozco '20

#### Efforts to Develop a Thiourea-Catalyzed Addition to ortho-Quinone Methides Academic Commons, Session 2, Poster 20



Mentor: Raul Navarro Major: Chemistry Funding: Professor George H. Cleland Endowed Undergraduate Summer Research Fellowship in Organic Chemistry

#### Michael Ozaki '19

Genetic Analysis of Suppressors of Microtubule Defects in *C. elegans* Motor Neurons Academic Commons, Session 2, Poster 16



Mentor: Renee Baran Major: Biology Funding: Gifts to the Undergraduate Research Center

#### Ben Pagano '21

Intrinsic Linking and Knotting in Directed Graphs Fowler 202, 9:15 AM



Mentor: Ramin Naimi Major: Undeclared Funding: Summer Undergraduate Research Fellowship

#### Anna Palmer '19

#### Afro-Caribbean Immigrant Motherhood: An Exploratory Study Fowler 112, 3:10 PM



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

#### Andrew Park '20

#### Using Virus Nanoparticles to develop an Alternative Antagonist to Heparin Academic Commons, Session 1,

Poster 39



Mentor: Andrew Udit Major: Biochemistry Funding: Chemistry and Biochemistry Summer Research Fellowship

#### **Spencer Patrick '19**

Along strike variation in exhumation history in Far Western Nepal's Main Central Thrust Academic Commons, Session 2, Poster 33



Mentor: Ann Blythe Major: Geology Funding: Gifts to the Undergraduate Research Center

#### **Robin Pounders '19**

Conflicting beliefs about social categories Fowler 112, 9:00 AM



Mentor: Andrew Shtulman Major: Psychology Funding: James S. McDonnell Foundation

Nelson Rayl '20

A Chronology of U.S. Asset Price Bubbles, 1865-1929 Academic Commons, Session 2, Poster 1



Mentor: Andrew Jalil Major: Economics Funding: Ford Research Mentor's Endowment

Mia Recio '21

Internship with LINC Housing Corporation Fowler 209, 2:15 PM



Mentors: Peter Dreier and Martha Matsuoka Major: Undeclared Funding: UEP, Affordable Housing Internship

#### Robertia Fujino Reid '19

(anti)Blackness in Japan Fowler 209, 10:35 AM



Mentor: James Ford Major: Critical Theory & Social Justice Funding: The Paul K. and Evalyn E. Cook Richter Trust

#### Vanessa Rodriguez '19

Differences in microbiome diversity and abundance between sister species of Jadera; seed-eating insects from Costa Rica and California Academic Commons, Session 1, Poster 33



Mentor: Shana Goffredi Major: Biochemistry Funding: Gift of Barbara Proffitt and Dr. Richard T. Proffit '66

Salma Rojas '21

SCOPE LA: Building Grassroots Power in South Los Angeles Academic Commons, Session 1, Poster 30



Mentors: Peter Dreier and Martha Matsuoka Major: Undeclared Funding: The Paul K. and Evalyn E. Cook Richter Trust

#### Ben Sappey '19

Oxidation of Hydrocarbons with a Laser-Ablated Catalyst Using a Custom Flow-through Cell Fowler 309, 3:25 PM



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

#### Laura Searles '19

The Fight for Legitimacy of "Meaningless" Music: Understanding Trap Through the Lens of Bebop Fowler 309, 1:45 PM



Mentor: David Kasunic Major: Media Arts and Culture Funding: Mellon Foundation: Arts and Urban Experience

#### Kendrick Shoji '20

The Greatest Documentary Academic Commons, Session 2, Poster 11



Mentor: Ari Laskin Major: Media Arts and Culture Funding: Mellon Foundation: Arts and Urban Experience

#### Caroline Silverstein '19

Albert Kahn Out West Fowler 309, 2:15 PM



Mentor: Kelema Moses Major: History Funding: Robert W. Winter History of Art & Architecture Summer Research Fellowship

Ben Smith '20

#### Beyond Teeth: Examining Access to Medicaid Dental Benefits in Los Angeles County

Academic Commons, Session 2, Poster 24



Mentors: Heng Lam Foong and Bhavna Shamasunder Major: Urban and Environmental Policy Funding: UEP, Public Health Internship

Chandler Smith '19

Characterization of Photoinduced Charge Transfer Intermediates in an Electrochemical Solar Cell Academic Commons, Session 1, Poster 31



Mentor: Michael Hill Majors: Chemistry, Physics Funding: Miller-Van Gerpen Endowed Summer Research Fellowship

Kallyn Song-Nichols '19

#### Children's Thinking About Gendered Robots Fowler 112, 9:50 AM



Mentors: Andrew Shtulman and Andrew Young Major: Cognitive Science Funding: Ford Research Mentor's Endowment

#### Kathy Sorto '20

LA Voice Academic Commons, Session 2, Poster 39



Mentor: Peter Dreier Major: Sociology Funding: UEP, Affordable Housing Internship

#### Anna Stokolosa '18

Electrochemical Hydrolysis of Adipose Tissue Academic Commons, Session 2, Poster 32



Mentor: Michael Hill Major: Chemistry Funding: Fletcher-Jones Chemistry and Biochemistry Research Endowment

#### Olivia Tenney '19

#### Nietzsche and Silicon Valley Stoic Revivalism Fowler 202, 2:40 PM



Mentor: Dale Wright Majors: Religious Studies, Critical Theory & Social Justice Funding: Arnston Memorial Essay Award

#### Asher Tessier '20

Dramatizing Lawrence Fowler 309, 1:30 PM



Mentor: Sarah Kozinn Major: Media Arts and Culture Funding: Ford Research Mentor's Endowment

#### Elizabeth Tibebu '20

Organizing for Affordable Housing with ACCE Fowler 209, 1:45 PM



Mentor: Martha Matsuoka Major: American Studies Funding: UEP, Affordable Housing Internship

Paul Tomlinson '19

Synthesis of Furanolactone Motifs by Photoredox and Lewis Acid Catalyzed Ketyl Radical Cyclization Academic Commons, Session 1, Poster 2



Mentor: Jeffrey Cannon Majors: Chemistry, Economics Funding: Ford Research Mentor's Endowment

Luis Torres '18

Evaluation of Fundación Nutrir's malnutrition interventions in the community of Salta Capital, Argentina Fowler 209, 2:40 PM



Mentor: Marcella Raney Majors: Biology, Spanish Funding: The Paul K. and Evalyn E. Cook Richter Trust

Emily Tran '19

Identifying and Extracting Product-Specific and Domain-Specific Words From Mozilla Bug Summaries Academic Commons, Session 1, Poster 29



Mentor: Celia Chen Major: Computer Science Funding: Mary S. Caswell Fund for Summer Research

Jack Tripp '21

ACLU Gender Inclusive Bathrooms Campaign Research Fowler 112, 2:55 PM



Mentor: Broderick Fox Major: Undeclared Funding: Mellon Foundation: Arts, Humanities and Social Science

#### Ali Vogelaar '19

Novel Anticoagulants Using Sulfated Dendrons on Virus-like Particles Academic Commons, Session 2, Poster 34



Mentor: Andrew Udit Major: Chemistry Funding: Summer Undergraduate Research Fellowship

#### Waruguru Waithira '19

MAU MAU women - Stories of survival from the remnants of the MAU MAU Revolution (1952-1964) Fowler 209, 10:50 AM



Mentor: Movindri Reddy Majors: Biology, Art and Art History Funding: The Paul K. and Evalyn E. Cook Richter Trust

#### **Claire Weider '19**

When do science and intuition begin to conflict? Fowler 112, 9:20 AM



Mentors: Andrew Shtulman and Andrew Young Major: Psychology Funding: James S. McDonnell Foundation

#### Emily West '19

#### Nepal: Homogenized Religion Through Tourism and Travel Literature Fowler 202, 3:10 PM



Mentor: Amy Holmes-Tagchungdarpa Majors: Religious Studies, Art History Funding: Ford Research Mentor's Endowment

#### Chloe Wheeler '19

Tragic Arithmetic: Nature of the Woven in Ancient Greek Tragedy as Mathematical Fowler 209, 10:05 AM



Mentor: Damian Stocking Majors: Comparative Studies in Literature and Culture, Spanish Funding: Ford Research Mentor's Endowment Olivia Wilk '19

Cultural Production and State Power: An Analysis of the PRC's Intervention in the Chinese Music Industry Fewdor 200, 10:20 AM

Fowler 209, 10:20 AM



Mentor: Alexander Day Majors: Diplomacy and World Affairs, East Asian Studies Funding: Mary S. Caswell Fund for Summer Research

#### Emma Yudelevitch '19

#### Policy Advocacy: The LAANE Model

Academic Commons, Session 2, Poster 37



Mentors: Peter Dreier and Martha Matsuoka Major: Urban and Environmental Policy Funding: UEP, Affordable Housing Internship

Diego Zapata '19

A Host Range Survey of the Ambrosia Beetle (*Coleoptera: Scolytinae*) - Phytopathogenic Fungus Complex in Los Angeles, California Academic Commons, Session 2, Poster 31



Mentor: Gretchen North Major: Biology (Environmental Science concentration) Funding: The Paul K. and Evalyn E. Cook Richter Trust Iris Zhang '20

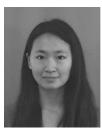
Targeted knockout of katanin genes in *C. elegans* by CRISPR and RNAi Academic Commons, Session 2, Poster 35



Mentor: Renee Baran Major: Biology Funding: Summer Undergraduate Research Fellowship

#### Vena Zhang '19

**Delta Sets of Non-Minimal Numerical Monoid** Academic Commons, Session 2, Poster 27



Mentor: Jay Daigle Majors: Mathematics, Computer Science Funding: Ford Research Mentor's Endowment

#### Warren Zhang '20

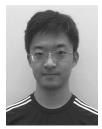
Synthesizing furanolactone motifs via photocatalyzed redox Academic Commons, Session 2, Poster 29



Mentor: Jeffrey Cannon Major: Biochemistry Funding: Summer Undergraduate Research Fellowship

#### Yiming Zhang '19

Geomagnetic Field Intensity Changes During an R-N Polarity Reversal Recorded by Mafic Lava Flows, Anahola, Kauai Academic Commons, Session 1, Poster 1



Mentor: Scott Bogue Major: Geology Funding: Summer Undergraduate Research Fellowship

Hedda Zhao '20

Background Simulations on the Detection of Dark Matter Fowler 202, 10:20 AM



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

## Funding

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- Undergraduate Research Program
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Andrew Shtulman (Chair) Treena Basu Maryanne Horowitz Darren Larsen Daniel Pondella Eric Sundberg

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#### Other Faculty Contributors

Area Coordinator: Lan Chu

Luncheon Presenter: Erica Preston-Roedder Wendy Sternberg

Workshop Leaders: Jessica Blickley Stephany Bustos Jamila Chambers Jennifer Locke Jacob Sargent Andrew Shtulman

Session Moderator: Robin Craggs

Also served as: <sup>(1)</sup> = Area Coordinator <sup>(2)</sup> = Speaker or Presenter <sup>(3)</sup> = Conference Session Moderator

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Not pictured: Prof. Ron Buckmire, Associate Dean of Curricular Affairs, and Prof. Eileen M. Spain. Associate Dean of the College, Research

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