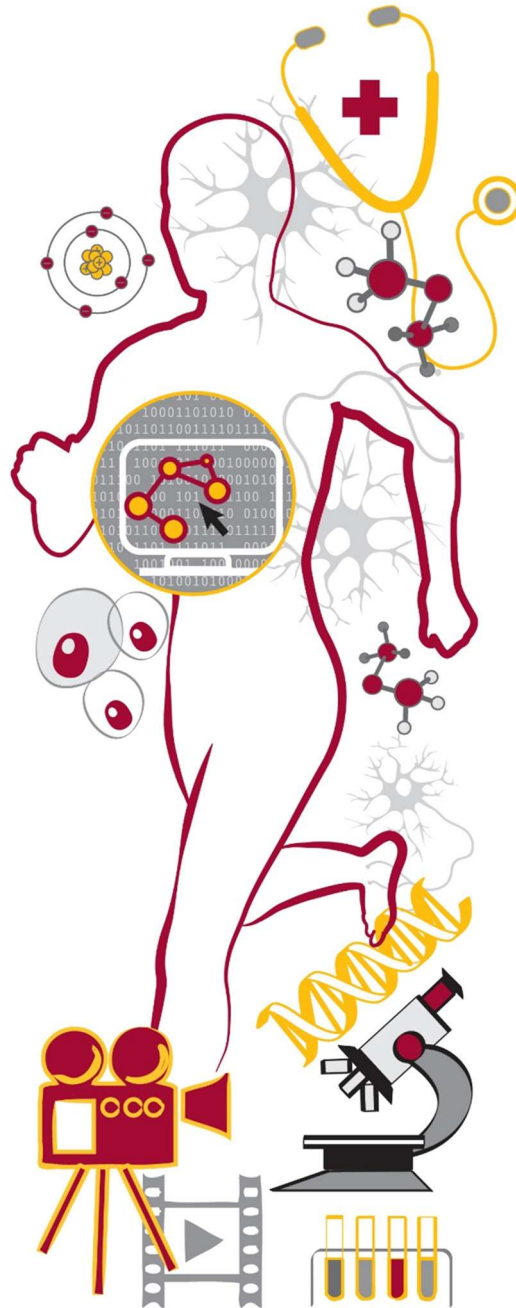


Bridge UnderGrad Science (BUGS) Summer Research Program



7th Annual BUGS Finale Symposium
Friday, August 5 -- Saturday, August 6, 2022
MCB101/MCB102 and via Zoom



Friday, August 5, 2022

- 8:00 am Pre-meeting check-in (onsite @ Michelson Hall)
Zoom webinar: <https://usc.zoom.us/j/XXXXXXX>
- 8:30 am Welcome by Senior Advisor to the Dean for Research Strategy and Development
Stephen Bradforth
- 8:35 am BUGS Program Introduction by Professor Kate White
- 8:45 am Oral Presentations from **Group 1** (with Intros and Q&A)
- 10:05 am Intros of BUGS Jrs in Posters **Group A**
- 10:20 am *Break*
- 10:30 am Poster **Group A** Presentations
- 10:50 am Oral Presentations from **Group 2** (with Intros and Q&A)
- 12:20 pm Intros of BUGS Jrs in Poster **Group B**
- 12:35 pm Finale Symposium Day 1 Group Photo
- 12:40 pm *Break*
- 12:50 pm Poster **Group B** Presentations
- 1:10 pm Reception
- 2:30 pm End Event for Friday

Saturday, August 6, 2022

- 8:00 am Pre-meeting check-in (onsite @ Michelson Hall)
Zoom webinar: <https://usc.zoom.us/j/XXXXXXX>
- 8:30 am Welcome by Senior Advisor to the Dean for Research Strategy and Development
Stephen Bradforth
- 8:35 am BUGS Program Introduction by Professor Scott Fraser
- 8:45 am Oral Presentations from **Group 3** (with Intros and Q&A)
- 10:05 am Intros of BUGS Jrs in Posters **Group C**
- 10:20 am *Break*
- 10:30 am Poster **Group C** Presentations
- 10:50 am Oral Presentations from **Group 4** (with Intros and Q&A)
- 12:15 pm Presentation to Dr. Arthur & Mrs. Francis Peskoff (Trudi Berwin Student Support Fund)
- 12:20 pm Comments by Dr. & Mrs. Peskoff; Group Photo with Students
- 12:30 pm Intros of BUGS Jrs in Poster **Group D**
- 12:45 pm Finale Symposium Day 2 Group Photo
- 12:50 pm *Break*
- 1:00 pm Poster **Group D** Presentations
- 1:20 pm Reception
- 2:30 pm End Event



Friday, August 5th, 2022

GROUP 1: ORAL PRESENTATIONS [8:45am – 10:05am] • Moderators: XXX & XX

Shourav Saha • '24, Dornsife Biochemistry PI: Vadim Cherezov Mentor: Donggyun Kim	<i>Towards Cryo-EM Studies of the Angiotensin II Type 2 Receptor</i>
Jai Mehrotra Varma • '25, Dornsife Human Biology PI: Kimberly Gokoffski Mentor: Phillip Lam, Vivian Wu	<i>Electric Field Stimulation of Rat Wound Sites to Expedite Peripheral Nerve Regeneration</i>
Samer Awad • '24, Dornsife Computational Neuroscience PI: Cristina Zavaleta Mentor: Alexander Czaja	<i>Contrast Agent Quantitation in Crowded Raman Hyperspectral Imaging Applications</i>
* Sarah Schaefer • '23, Viterbi Biomedical Engineering PI: Cristina Zavaleta Mentor: Olga Eremina	<i>Comparison of SERS and SERRS Nanoparticles</i>
Sarah Relle • '24, Dornsife/Pharmacy Neuroscience/Science & Management of Biomedical Therapeutics PI/Mentor: Dion Dickman	<i>Utilizing CRISPR Mutagenesis to Induce Tissue-specific Mutations in-vivo</i>
Hari Srinivasan • '25, Dornsife Neuroscience PI: Dion Dickman Mentor: Elizabeth Loxterkamp	<i>Discovering the Functionality of the Neto beta Protein using CRISPR cas9 Drosophila Mutant Crosses</i>
Sara Wu • '24, Davis Gerontology Human Development & Aging/Health Science PI/Mentor: Dion Dickman	<i>Screening for Markers of Neurodegenerative Disease at the Drosophila melanogaster Neuromuscular Junction</i>
Suseong Cho • '23, UCLA Psychobiology PI: Jason Junge	<i>Assembly of Cas9-Avidin Fusion</i>
* Aaron Ines • '22, Viterbi Biomedical Engineering PI/Mentor: Jason Junge	<i>Protocol Development for Combining CLEM and FLIM Techniques to Analyze Cell Metabolism</i>
* Andrew Ines • '22, Viterbi Biomedical Engineering PI/Mentor: Jason Junge	<i>Optimizing Fluorescent Dye Staining Protocol for CLEM</i>
Andrew Kasparian • '24, Dornsife Biology/Health Care Studies PI: Jason Junge Mentor: Falk Schneider	<i>Fluctuation Correlation Spectroscopy</i>

GROUP A: POSTER PRESENTATIONS [10:30am – 10:50am] [POSTER #]

Aidan Belofsky • '23, Palos Verdes Peninsula High School (CA) PI: Kate White Mentors: Aneesh Deshmukh	[P01] <i>Investigating Subcellular Organization of Beta Cells using Multiple Imaging Modalities</i>
Zachary Chung • '24, Arcadia High School (CA) PI: Leonardo Morsut Mentors: Zoe Shappell, Thijs Makaske, Davide Carra, Christian Chung	[P02] <i>Development of Drug-Resistant Piggyback Vectors for Pluripotent Stem Cell Transfection</i>
Jackie Li • '23, Temple City High School PI: Brooke Hjelm Mentors: Audrey Omidasalar, Shruti Kakan, Daniel Gerke	[P03] <i>Optimization of H&E Staining Procedures and Bioinformatics Quantification of Lymphocytes/Acini in a Mouse Model of Sjogren's Syndrome</i>

Phoenix Xinyou He • '23, Temple City High School (CA) <i>PI: Brooke Hjelm Mentors: Audrey Omidzalar, Shruti Kakan, Daniel Gerke</i>	[P03] Optimization of H&E Staining Procedures and Bioinformatics Quantification of Lymphocytes/Acini in a Mouse Model of Sjogren's Syndrome
Daniel Kim • '24, Francisco Bravo Medical Magnet High School (CA) <i>PI: Camelia Danilov Mentors: Steve Swenson</i>	[P05] Evaluation of Intranasal Delivery Route of MicroRNA-133b From the Nose to the Injured Spinal Cord in Mice
Jaimie Lee • '23, Arcadia High School (CA) <i>PI: Edward Leung Mentors: Yi Xiao</i>	[P06] HITting the Spot in Interference Studies
Isabelle Whetsel • '23, South Pasadena High School (CA) <i>PI: Jennifer Dien-Bard Mentors: Samantha Gomez, John Fissel, Lucas Osborn, Pei Ying Alex Chen</i>	[P07] Development of Screening Test to Detect Cefazolin Inoculum Effect in Methicillin Susceptible Staphylococcus aureus
Faith Ling • '23, Temple City High School (CA) <i>PI: David McKemy Mentors: Chenyu Yang, Brian Kim</i>	[P09] Expression Profile of CGRP in TRPM8+ Trigeminal Afferents Innervating Mouse Dura
Isabella Faccio • '23, Santa Ana High School (CA) <i>PI: Dong Song Mentors: Huijing Xu</i>	[P10] Mechanical Testing of Biodegradable Polyethylene Glycol (PEG) Braces Used to Stiffen Flexible Penetrating Neural Probes
Evan Chang • '23, Troy High School (CA) <i>PI: Dong Song Mentors: Huijing Xu</i>	[P10] Mechanical Testing of Biodegradable Polyethylene Glycol (PEG) Braces Used to Stiffen Flexible Penetrating Neural Probes
Mihir Mehta • '23, Palos Verdes Peninsula High School (CA) <i>PI: Unmesh Jadhav Mentors: Eric Sanchez, Sweta Sharma</i>	[P12] Role of Sox17 in Early Colorectal Cancer Progression
Rohum Zaman • '24, Thornhill High School (Ontario, Canada) <i>PI: Dominique Duncan Mentors: Alexis Bennett, Celine Alba</i>	[P13V] Analyzing Biomarkers of Epileptogenesis Through HFO Detection and Analysis
GROUP 2: ORAL PRESENTATIONS [10:50am – 12:20pm] • Moderators: XXX & XX	
* Helen Wu • '23, Dornsife/Viterbi Neuroscience/ Computer Science <i>PI/Mentor: Jonas Kaplan</i>	Understand the Neuroscience of Human Event Segmentation Using Naturalistic fMRI of Story Listening
* Emmett Liljegren • '25, Keck Health Promo. & Disease Prevention <i>PI: Peter Kuhn Mentor: Elizabeth Qi</i>	Post-Acute Covid-19 Syndrome: A Liquid Biopsy Perspective
* Andrew Udov • '25, Dornsife Human Biology <i>PI: James Hicks Mentor: Stephanie Shishido</i>	Analysis of CAR-T Therapy for Prostate Cancer with HDSCA Workflow
Fangyun Cecilia Liu • '23, Dornsife/Viterbi Quantitative Biology/ Computer Science <i>PI: Serghei Mangul Mentor: Brian Nadel</i>	Assessment of Robustness and Reproducibility of Transcriptome Quantification Tools Across RNA-Seq-Based Computational Replicates
Rishi Nair • '24, Georgia Tech. Biology/Psychology <i>PI: Derrick Morton Mentor: Lauryng Higginson</i>	A Drosophila model of Pontocerebellar Hypoplasia reveals the critical role of the RNA Exosome
* Andy Ryu • '23, Dornsife Biochemistry <i>PI: Matthew Pratt Mentor: Stuart Moon, Eldon Hard</i>	Synthesis of an α -Synuclein/Dimaleimide Crosslinker Conjugate for a Single Molecule Force Experiment
* Natasha Mohan • '24, Dornsife Biochemistry/Health Administration <i>PI/Mentor: Laura Shin</i>	Surgical Intervention and Early Detection of Charcot Neuropathy
Megan Dudaney • '24, Dornsife Human Biology/Dance, Psychol & Law <i>PI: Eun Ji Chung Mentor: Yi Huang</i>	The Therapeutic Potential of Urinary Exosome for Polycystic Kidney Disease

Nathan Ho • '24, Viterbi Biomedical Engineering <i>PI: Eun Ji Chung Mentor: Siyoung Abby Lim</i>	<i>Natural Killer Cell Derived Small Extracellular Vesicles for Glioblastoma Therapy</i>
Shawn Yang • '24, Dornsife Biological Sciences/Computational Biology & Bioinformatics <i>PI: Ian Ehrenreich Mentor: Cara Hull</i>	<i>Minimization of the Mitochondrial Genome in Saccharomyces Cerevisiae</i>
Gaveen Godage • '24, Dornsife Human Biology <i>PI: Leonardo Morsut Mentor: Christine Ho</i>	<i>Efficient Differentiation of Mouse Embryonic Stem Cells (ESCs) to Cardiomyocytes in vitro</i>
* Catie He • '24, Dornsife Chemistry/Chemical Biology <i>PI: Kate White Mentor: Ashley Archambeau</i>	<i>Optimizing the Isolation of Insulin Vesicles for Biophysical Characterization</i>
Shayan Mahmood • '24, Dornsife/Keck Biochemistry/Health Care Studies <i>PI: Kate White Mentor: Aneesh Deshmukh</i>	<i>Selectively Labeling and Mapping Lysosomes in Pancreatic Beta Cells Using Super Resolution Microscopy</i>
GROUP B: POSTER PRESENTATIONS [12:50pm – 1:10pm]	[POSTER #]
Zoe Judkins • '24, South Pasadena High School (CA) <i>PI: Jennifer Cotter Mentors: Monica Mendez</i>	[P01] <i>Digitization of Teaching Slides</i>
Gio Kim • '24, Troy High School (CA) <i>PI: Gage Crump Mentors: Tuo Shi</i>	[P02] <i>Investigating the Requirement of atoh1a Enhancers for Zebrafish Inner Ear Hair Cell Regeneration Using CRISPR/Cas9 Genome Editing</i>
^ Andrea Arreortua • '22, Palisades Charter High School (CA) <i>PI: Fabien Pinaud Mentors: Anthony Fernandez, Liying Wu</i>	[P03] <i>The Coalition of Sun 1, Sun 2, and Oligo</i>
^ Derek Wu • '23, Walnut High School (CA) <i>PI: Fabien Pinaud Mentors: Anthony Fernandez, Liying Wu</i>	[P03] <i>Cloning of SNAP tag SUN2 Fusion Protein for Super Resolution Imaging of Nuclear Membrane Proteins</i>
Suhan Rapaka • '26, Wakeland High School (TX) <i>PI: Thai Truong Mentors: Anna Nadtochiy</i>	[P05] <i>Effects of Temperature on Zebrafish Brain Activity Patterns</i>
Conor Camerer • '24, Flintridge Preparatory School (CA) <i>PI: Kate White Mentors: Janielle Cuala, Colleen O'Halloran</i>	[P06] <i>Developing VR Interaction and Data Integration</i>
Annabel Tiong • '23, Irvine High School (CA) <i>PI: Zhen Zhao Mentors: Shangzhou Xia</i>	[P07] <i>Microvascular Endophenotype in Mild Traumatic Brain Injury</i>
Kian Ghasemi • '23, North Hollywood Highly Gifted Magnet (CA) <i>PI: Zhen Zhao Mentors: Xinyan Liang</i>	[P08] <i>Using the iPSC-Derived Microglia Model to Study Alzheimer's Disease Associated PLCG2 Variant</i>
Sonia Zhang • '22, Arcadia High School (CA) <i>PI: Zhen Zhao Mentor: Shangzhou Sandra Xia</i>	[P09] <i>MaGeCKFlute Computational Analysis on CRISPR-screened Human Pericytes</i>
Christopher Wong • '24, South Pasadena High School (CA) <i>PI: Paul Seidler Mentors: Nader Mostowfi</i>	[P10] <i>Characterization of Novel Natural Products and Their Potential Action as Alzheimer's Therapeutics</i>
Mason Hong • '26, La Salle College Preparatory High School (CA) <i>PI: Francesco Cutrale Mentors: Jason Junge</i>	[P11] <i>Spectral Autofluorescence: Toward Quantitative Pathology</i>
Riya Jadeja • '23, Flower Mound High School (TX) <i>PI: Dominique Duncan Mentors: Celine Alba, Alexis Bennet, Serena Ramde</i>	[P12] <i>Detection of High Frequency Oscillations in Electroencephalographs to Identify Biomarkers for Epilepsy in Traumatic Brain Injury Patients</i>
Vishnu Ayalasomayajula • '24, North Creek High School (WA) <i>PI: Dominique Duncan Mentors: Celine Alba</i>	[P13V] <i>Understanding Factors that Lead to the Development of Epileptogenesis by Analyzing Characteristics of its Biomarker: High-Frequency Oscillations</i>



Saturday, August 6th, 2022

GROUP 3: ORAL PRESENTATIONS [8:45am – 10:05am] • Moderators: XXX & XX

Nikith Kurella • '23, Keck Health Promotion/Disease Prevent. <i>PI/Mentor: Adam MacLean</i>	<i>Computational Modeling of Shank3 in the Wnt/Beta-Catenin Signaling Pathway</i>
* Fifi Pan • '25, Dornsife/Keck/IYA Neuroscience/Disruptive Innovation <i>PI: Adam MacLean Mentor: Jesse Kreger</i>	<i>Myeloid-Derived Suppressor Cell Differentiation Altered in Cancer</i>
* Ana Sanson Leon • '25, Viterbi/Dornsife Electrical and Computer Engineering/Computational Neuroscience <i>PI: Krishna Nayak Mentor: Kubra Keskin</i>	<i>Reducing MRI Artifacts Around Orthopedic Metallic Implants</i>
* Kailee Shlipak • '24, Dornsife Chemistry/Organizational Leadership & Management <i>PI/Mentor: Peter Qin</i>	<i>Investigating Impacts of DNA- Topological Constraints Discrimination on Cas9 Target Discrimination</i>
Aislinn Knight • '23, Dornsife Human Biology/Dance <i>PI: Barbara Sargent Mentor: Nora Almoadi</i>	<i>Supported Treadmill Stepping for Selective Motor Control in Infants at High Risk of Cerebral Palsy</i>
Grace Vipapan • '25, Cal Poly San Luis Obispo Civil Engineering <i>PI: Clay Wang Mentor: Jennifer Shyong</i>	<i>Upregulation of Secondary Metabolite Production in Penicillium rubens</i>
Sangwon Cha • '24, Viterbi Biomedical Engineering-Electrical Emphasis <i>PI/Mentor: Jean-Marie Bouteiller</i>	<i>Computationally Modeling Calcium Dynamics of Retinal Ganglion Cell to Predict Axon Growth</i>
Adriana Cruz • '24, North Seattle College Biochemistry <i>PI: Vadim Cherezov Mentor: Behnaz Davoudinasab</i>	<i>Condition Optimization for Solving Protein Structures</i>
* Tessa Ferrari • '23, Dornsife Quantitative Biology <i>PI: Vsevolod Katritch Mentor: Ho Ming (Jordy) Lam</i>	<i>Structure-based discovery of GnRHR1 drug candidates using V-SYNTHES</i>
Joanne Qiu • '23, UCLA Applied Mathematics <i>PI/Mentor: Carl Kessleman</i>	<i>Integrate Electricity Stimulation into the Microscope Platform</i>
Seoyoung Chung • '24, Dornsife Biochemistry/Human Disease <i>PI: Charles McKenna Mentor: Oskar Sundberg</i>	<i>Improved Detection of Charcot Neuroarthropathy Using a Novel Imaging Probe</i>

GROUP C: POSTER PRESENTATIONS [10:30am – 10:50am]

Ellie Choi • '24, Flintridge Preparatory School (CA) <i>PI: Young-Kwon Hong Mentors: Joshua Choi</i>	[P01] <i>Mapping the Human Meningeal Lymphatic System</i>
Anika Laurie Chung • '24, Gorman Learning Center (CA) <i>PI: Young-Kwon Hong Mentors: Joshua Choi</i>	[P02] <i>Mapping Lymphatic Uterus</i>
Joseph Kim • '24, Granada Hills Charter High School <i>PI: Uttam Sinha Mentors: Benjamin Ziman, Dechen Lin, Chehyun Nam</i>	[P03] <i>The Role of "Transcription Factor A" as a Metastatic Potential in Head and Neck Cancer</i>

Rachel Kim • '24, Irvine High School (CA) <i>PI: Young-Kwon Hong Mentors: Luping Zhao</i>	[P04] <i>Morphology and Distribution of Lymphatic Vessels in the Rodent Uterus</i>
Lindsey Dinh • '23, La Quinta High School (CA) <i>PI: Thai Truong Mentors: Anna Nadtochiy</i>	[P05] <i>Measuring the cellular temperature of zebrafish brain with the fluorescent dye Rhodamine B</i>
Alexandra Kim • '24, Polytechnic School (CA) <i>PI: Thai Truong Mentors: Anna Nadtochiy</i>	[P06] <i>Building a Deep Learning Neuron Detector From Uncertain Human Annotations</i>
Evelyn Lee • '24, The Buckley School (CA) <i>PI: Gangning Liang Mentors: Yvonne Tsai, Xinyi Zhou, Hongtao Li, Yohei Sekino</i>	[P07] <i>SETD2 Aberrancy Enhanced the Synergetic Anti-tumor Effect of Combination Treatment of DNA Hypomethylating Agent and PARP Inhibitor in Aggressive Clear Cell Renal Cell Carcinoma</i>
Nathan Vipapan • '25, Maranatha High School (CA) <i>PI: Clay Wang Mentors: Shu-Yi Lin</i>	[P08] <i>Purification and Identification of Novel Natural Products from Genetic Engineering Fungi</i>
Yalli Koren • '24, Windward School (CA) <i>PI: Pinchas Cohen Mentors: Hiroshi Kumagai</i>	[P09] <i>MOTS-c Prevents Immobilization Induced Muscle Atrophy</i>
Rayhan Mahamed • '25, Arcadia High School (CA) <i>PI: Lindsey Schier Mentors: Sandrine Chometton, Ahyun Jung, Aracely Ramos</i>	[P10] <i>The Role of the Digestive Enzyme Maltase-glucoamylase in the Hedonic Appeal of Maltose Taste in Sweet Subsensitve Mice</i>
Rebecca Lee • '22, West Ranch High School (CA) <i>PI: Lindsey Schier Mentors: Sandrine Chometton, Ahyun Jung, Aracely Ramos</i>	[P11] <i>Investigating the Effects of Polyphenols in Green Tea Extract on Taste Discrimination and Enzyme Regulation in Mice</i>
Grace Tang • '23, Gabrielino High School (CA) <i>PI: Lindsey Schier Mentors: Sandrine Chometton, Ahyun Jung, Aracely Ramos</i>	[P12] <i>The Relative Contributions of Glucokinase to Sugar Taste in Mice</i>
Amogh Sukhthankar • '23, Monta Vista High School (CA) <i>PI: Vsevolod Katritch Mentors: Jordy Homing Lam</i>	[P13V] <i>Structure-based ligand discovery of Neuromedin U Receptor 2 with V-SYNTHES</i>
GROUP 4: ORAL PRESENTATIONS [10:50am – 12:15pm] • Moderators: XXX & XX	
Neel Tangella • '24, Dornsife/Viterbi Quantitative & Computational Biology/Computer Science <i>PI: Stacey Finley Mentor: Colin Cess</i>	<i>Understanding T Cell Collective Migration Using an Agent-based Model</i>
Petcy Yao • '23, Keck Health Promotion & Disease Prevention <i>PI/Mentor: Kimberly Gokoffski</i>	<i>Pattern Electroretinogram Analysis of Optic Nerve Crush Injury Model</i>
Christine Chen • '23, Dornsife Neuroscience/Public Health <i>PI: Dion Dickman Mentor: Chengjie (Benji) Qiu</i>	<i>Determining Membrane-Associated Guanylate Kinases (MAGUK) Functions in Synaptic Growth</i>
* Caleb Dehn • '25, Dornsife/Thornton Neuroscience/Health Care Studies/Choral Music <i>PI/Mentor: Dion Dickman</i>	<i>BLOC-1 Complex Genetic Screening</i>
Michael Friedman • '23, Dornsife/Keck/Dramatic Arts Human Biology/Health Care Studies/Comedy <i>PI: Dion Dickman Mentor: Benji Qiu</i>	<i>Mapping the Neuromuscular Junction of Drosophila with Trojan Gal4 and Endogenous GFP Insertions</i>
Isha Sanghvi • '23, Dornsife/Marshall Neuroscience/Social Entrepreneurship <i>PI: Dion Dickman Mentor: Nancy Tran, Sarah Perry</i>	<i>Development of a Drosophila Neurodegeneration Model Screen to Investigate Dysfunction at the Neuromuscular Junction</i>
Sharon Tu • '23, Dornsife/Keck Biological Sciences/Health Care Studies <i>PI: Justin Ichida Mentor: Jasper Rubin-Sigler</i>	<i>Utilizing CRISPR-Interference to Identify Mitigators of TDP-43 Induced Neurotoxicity</i>

* Amy Huang • '25, Dornsife Biochemistry/Health Care Studies <i>PI: Peter Kuhn Mentor: Stephanie Shishido</i>	<i>A Cellular Comparison Between Upper Tract Urothelial Cancer and Bladder Cancer</i>
Alexander Kuncz • '25, Viterbi Biomedical Engineering <i>PI/Mentor: Thomas Lozito</i>	<i>Septoclasts and Lizard Tail Regeneration</i>
* Badruddin Mahamed • '25, Dornsife Quantitative Biology <i>PI/Mentor: Lindsey Schier</i>	<i>The Quantification of Neural Activity to Identify Brain Regions Involved in Experience-Driven Sugar Preference in Mice</i>
Amelia Cave • '24, Dornsife Health & Human Sciences <i>PI/Mentor: Lindsey Schier</i>	<i>The Role of Oral Carbohydrate Digestion in Promoting the Hedonic Appeal of Complex Sugars in Sweet-blind Mice</i>
GROUP D: POSTER PRESENTATIONS [1:00pm – 1:20pm]	
Anna Heur • '23, La Canada High School (CA) <i>PI: Kimberly Gokoffski Mentors: Phillip Lam</i>	[P01] <i>A Model of Glaucoma Induced by Circumlimbal Suture in Rats</i>
Ella Chang • '24, West Career & Technical Academy (NV) <i>PI: Kimberly Gokoffski Mentors: Vivian Wu</i>	[P02] <i>RCGs and Me</i>
Christopher Deng • '24, San Marino High School (CA) <i>PI: Kate White Mentors: Janielle Cuala, Tvisha Singh</i>	[P03] <i>Utilizing Multimodal Microscopy to Study Beta Cell Heterogeneity</i>
Japit Shelat • '23, Artesia High School (CA) <i>PI: Hussein Yassine Mentors: Yi Sun, Bilal Kerman</i>	P0 [4] <i>The Effect of Cytosolic Phospholipases A2 (CPLA2) Inhibitor on the Blood-Brain Barrier (BBB) in APOE4 Mice</i>
Mina Lipets • '23, New Mexico Military Institute (NM) <i>PI: Vsevolod Katritch Mentors: Antonina Nazarova</i>	[P05] <i>NMUR1-Obesity Drug Target</i>
Krish Pai • '25, Torrey Pines High School (CA) <i>PI: Dominique Duncan Mentors: Celine Alba, Alexis Bennett, Serena Ramde</i>	[P06] <i>Detecting High Frequency Oscillations by Electroencephalography as an Indicator of Biomarkers for Post Traumatic Epilepsy</i>
Ria Mandal • '23, La Canada High School (CA) <i>PI: James Boedicker Mentors: Adam Krieger, Joshua Montion, Luke Peach</i>	[P07] <i>CRISPR Genes</i>
Simeon Mathew • '23, Oak Park High School (CA) <i>PI: Ravi Bansal Mentors: Siddhani Sawardekar</i>	[P08] <i>The Effects of Concussion on Functional Brain Connectivity in High School Football Players</i>
Trisha Mehta • '24, Troy High School (CA) <i>PI: Arnold Tsai Mentors: Seth Politano</i>	[P09] <i>Neuropsychiatric Complications from COVID 19</i>
Selena Zhang • '22, Arcadia High School (CA) <i>PI: Brian Lee Mentor: Roberto Martin Del Campo Vera</i>	[P10] <i>Neuromodulatory Analysis of Stereo-EEG Power During Reaching Arm Movement</i>
Jessie Li • '25, Tesoro High School (CA) <i>PI: Young-Kwon Hong Mentors: Luping Zhao</i>	[P11] <i>Morphology of Lymphatics in the Rodent Eyelid</i>
Kai Herman • '23, Polytechnic School (CA) <i>PI: Clay Wang Mentors: Jennifer Shyong</i>	[P12] <i>Characterizing Secondary Metabolites in Genetically Modified Fungi</i>
Hengrui (Henry) Hu • '25, Fay School (CA) <i>PI: Clay Wang Mentor: Christian Rabot</i>	[P13V] <i>Comparative Genetics Reveals Secondary Metabolic Diversity in Aspergillus spp</i>

Bridge UnderGrad Science Summer Research Program



Our sincere thanks to...

- *The students, faculty, mentors and colleagues for their support and participation in the 2022 BUGS Summer Research Program.*
- *All of the program's volunteers for their efforts in organizing and facilitating this year's activities.*
- *Dr. Arthur & Mrs. Frances Peskoff for establishing the Trudi Berwin Student Support Fund which supported NUMBER undergraduates (names starred (*) in the program) with research stipends during their summer research activities.*
- *The Jae S. Lim Foundation for their support of the BUGS Jr program.*
- *The Baugh Foundation for their support of the overall BUGS/BUGS Jr program.*
- *Sandeep and Neeti Dang for establishing the Dang Family Endowed Undergraduate Research Fund to support the BUGS program*
- *The Alfred E. Mann Institute for Biomedical Engineering (AMI-USC) for their support of the overall BUGS/BUGS Jr program.*



For information or to donate to the Bridge Institute or the BUGS/BUGS Jr Programs:

Contact us at: bridgeinstitute@usc.edu 213-821-9823

<https://bridge.usc.edu>

or

Make an appointment to visit us at:

Bridge Institute; USC Michelson Center for Convergent Bioscience;
1002 Childs Way; MCB 309; Los Angeles, California 90089-3502