

## **CSUPERB Announces 86 COVID-19 Research Recovery Microgrant Program Awards to CSU Faculty at 21 Campuses**

*January 3, 2022*

The California State University Program for Education and Research in Biotechnology (CSUPERB) is pleased to announce its ongoing COVID-19 Research Recovery Microgrant Program awards. Overall CSUPERB is making 86 awards totaling \$126,611 to CSU faculty at 21 CSU universities.

Awards were made as part of this ongoing initiative to assist tenured/tenure track faculty researchers and their students across the California State University (CSU) system as they restart, reinstate and reengage in existing and established research activities after campus laboratory closures due to the COVID-19 pandemic.

This program has a rolling deadline until January 16, 2022 and will continue making awards until the budgeted funds have been exhausted. This announcement will continue to be updated as additional awards are made. Interested faculty can find out more about the program by reading the full Request for Proposals (RFP) on the CSUPERB homepage at – [www.calstate.edu/csuperb](http://www.calstate.edu/csuperb).

86 CSUPERB COVID-19 Research Recovery Microgrant Program awards were to:

1. **Ana Almeida** (Biological Sciences, California State University, East Bay)  
Award: \$1,500 for the proposal titled “Comparative transcriptomics of plantlet development in *Kalanchoe marnieriana*: recovery microgrant to support graduate student re-engagement in research.”
2. **Taro Amagata** (Chemistry & Biochemistry, California State University, Long Beach)  
Award: \$1,500 for the proposal titled “Investigation of prostate cancer selective cytotoxicity for the two novel meroterpenoids isolated from the deep-water sediment-derived *Streptomyces* sp. CP55-76.”
3. **Pitiporn Asvapathanagul** (Civil Engineering and Construction Engineering Management, California State University, Long Beach)  
Award: \$1,500 for the proposal titled “Re-experiment hydrogen gas production from anaerobic digesters.”
4. **Ahmed Awad** (Chemistry, California State University, Channel Islands)  
Award: \$1,500 for the proposal titled “Design and synthesis of novel nucleoside analogues as potent antibacterial and anticancer agents.”
5. **Mojtaba Azadi** (Engineering, San Francisco State University)  
Award: \$1,500 for the proposal titled “Biomechanics of the fallopian tube – A recovery Phase.”

6. **James Bagley** (Kinesiology, San Francisco State University)  
Award: \$1,500 for the proposal titled "Skeletal Muscle Cell Microscopy Training for Student Researchers."
7. **Johannes Bauer** (Chemistry, California State University, Sacramento)  
Award: \$1,500 for the proposal titled "Evaluation of oxidative damage in aging *Drosophila melanogaster*."
8. **Elinne Becket** (Biological Sciences, California State University San Marcos)  
Award: \$1,500 for the proposal titled "Acquisition of DNA extraction and next-generation sequencing reagents to re-analyze samples due to expired materials."
9. **Deepali Bhandari** (Chemistry & Biochemistry, San Francisco State University)  
Award: \$1,500 for the proposal titled "Understanding molecular mechanisms underlying cell survival during stress."
10. **Mark Barash** (Justice Studies, San José State University)  
Award: \$1,500 for the proposal titled "Expanding capabilities of forensic DNA analysis by utilizing massively parallel sequencing."
11. **Gregory Barding** (Chemistry & Biochemistry, California State Polytechnic University, Pomona)  
Award: \$1,500 for the proposal titled "Expanding capabilities of forensic DNA analysis by utilizing massively parallel sequencing."
12. **Anna Bezryadina** (Physics & Astronomy, California State University, Northridge)  
Award: \$1,500 for the proposal titled "Mycelium – a light-guiding material."
13. **Cory Brooks** (Chemistry & Biochemistry, California State University, Fresno)  
Award: \$1,500 for the proposal titled "Recombinant Production of MUC16 and Therapeutic Antibodies in ExpiCHO Cells."
14. **Jason Burke** (Chemistry & Biochemistry, California State University, San Bernardino)  
Award: \$1,481 for the proposal titled "Biochemical Characterization of Missense Mutations in the Retinoblastoma Protein."
15. **Alejandro Calderon-Urrea** (Biology, California State University, Fresno)  
Award: \$1,500 for the proposal titled "Understanding the action mechanisms of chalcones and CED4 peptides on nematodes."
16. **Lily Chen** (Biology, San Francisco State University)  
Award: \$1,500 for the proposal titled "A Bacterial Battleground: Lactobacilli interfere with the adhesion and cytotoxicity of Group B Streptococcus on human cervical cells."
17. **Qiao-Hong Chen** (Chemistry, California State University, Fresno)  
Award: \$1,500 for the proposal titled "Development of Natural Product-Based Androgen Receptor Modulators."

18. **Jeremy Claisse** (Biological Sciences, California State Polytechnic University, Pomona)  
Award: \$1,500 for the proposal titled "Life History of Southern California Marine Fishes."
19. **Cynthia Crawford** (Psychology, California State University, San Bernardino)  
Award: \$1,500 for the proposal titled "Effects of ethanol and dopamine depletion on passive avoidance learning and psychostimulant-induced locomotor activity."
20. **Rafael Cuevas Uribe** (Fisheries Biology, Humboldt State University)  
Award: \$1,500 for the proposal titled "Seaweed nursery system."
21. **Maria Elena de Bellard** (Biology, California State University, Northridge)  
Award: \$1,500 for the proposal titled "Tissue Culture Hood repair."
22. **Raul Diaz** (Biological Sciences, California State University, Los Angeles)  
Award: \$1,494 for the proposal titled "Evolution and Development of the Reptilian Body Plan."
23. **Maria D'Orsogna** (Mathematics, California State University, Northridge)  
Award: \$1,500 for the proposal titled "Quantifying T-cell receptor clone diversity through BDI (birth, death, immigration) mathematical modeling."
24. **Edward Eivers** (Biological Science, California State University, Los Angeles)  
Award: \$1,500 for the proposal titled "Investigating if dSmad2 linker phospho-sites are involved in protein stability."
25. **Deborah Fraser** (Biological Science, California State University, Long Beach)  
Award: \$1,500 for the proposal titled "Replacement of THP-1, Raw264.7 and L-929 Cell Lines."
26. **George Gassner** (Chemistry & Biochemistry, San Francisco State University)  
Award: \$1,500 for the proposal titled "Bioengineering Enzymes from the Styrene Catabolic and Detoxification Pathway."
27. **Kristen Gorman** (Biological Science, California State University, Chico)  
Award: \$1,200 for the proposal titled "Differential expression profiles for scoliosis candidate genes."
28. **Elena Grintsevich** (Chemistry & Biochemistry, California State University, Long Beach)  
Award: \$1,500 for the proposal titled "Isoform-dependent regulation of actin cytoskeleton."
29. **Pascale Guiton** (Biological Sciences, California State University, East Bay)  
Award: \$1,500 for the proposal titled "Deletion of rop28, a developmentally regulated gene encoding the pseudokinase ROP28 in *Toxoplasma gondii*."

30. **Yoshie Hanzawa** (Biology, California State University, Northridge)  
Award: \$1,500 for the proposal titled "Cultivated Versus Wild Soybean: Revealing Differing Small RNA Expression Patterns."
31. **Kristin Hardy** (Biological Science, California Polytechnic State University, San Luis Obispo)  
Award: \$1,500 for the proposal titled "Metabolic and biochemical impacts of climate change stress on intertidal invertebrates."
32. **Benjamin Hawkins** (Biomedical Engineering, California Polytechnic State University, San Luis Obispo)  
Award: \$1,484 for the proposal titled "Microfluidic Co-culture of Primary Epidermal Keratinocytes (HEKa) and NIH 3T3 Fibroblasts."
33. **Christopher Heylman** (Biomedical Engineering, California Polytechnic State University, San Luis Obispo)  
Award: \$1,500 for the proposal titled "Vascularized Human Tumors on a Chip for Drug Screening."
34. **Gregory Holland** (Chemistry & Biochemistry, San Diego State University)  
Award: \$1,500 for the proposal titled "The Structure and Assembly of Spider Silk."
35. **Lisa Hua** (Biology, Sonoma State University)  
Award: \$1,500 for the proposal titled "Re-engaging undergraduate training for a faculty-led student project for the fidelity of chromosome organization."
36. **Saeed Jafarzadeh** (Computer and Electrical Engineering and Computer Science, Sonoma State University)  
Award: \$1,500 for the proposal titled "Improved Haptic Rendering Using Fuzzy Systems."
37. **Julie Jameson** (Biology, California State University, San Marcos)  
Award: \$1,500 for the proposal titled "Recovery of lost cell lines due to COVID-19 shut down."
38. **James Jancovich** (Biological Sciences, California State University, San Marcos)  
Award: \$1,500 for the proposal titled "Characterization of ranavirus innate immune evasion genes."
39. **Juanita Jellyman** (Biological Sciences, California State Polytechnic University, Pomona)  
Award: \$1,500 for the proposal titled "Roots of Hope: Diabetes Prevention."
40. **Zhaoshuo Jiang** (Engineering, San Francisco State University)  
Award: \$1,500 for the proposal titled "Inferring At Home Gait Parameters of Older Adults Using Floor Vibrations."

41. **Ike Kang** (Animal Science, California Polytechnic State University, San Luis Obispo)  
Award: \$1,500 for the proposal titled "Improvement of Bacterial Reduction, Product Quality, and Processing Efficiency of Turkey using Sub-zero Saline Chilling Technology."
42. **Niroshika Keppetipola** (Chemistry & Biochemistry, California State University, Fullerton)  
Award: \$1,402 for the proposal titled "Restart Tissue Culture Work to Investigate Gene Expression in Neuronal Cells."
43. **Young Sub Kwon** (Kinesiology, Humboldt State University)  
Award: \$1,500 for the proposal titled "Evaluation of the Augmented Virtual Reality of Exercise Physiology Laboratory."
44. **Youngkwang Lee** (Chemistry & Biochemistry, San Diego State University)  
Award: \$1,500 for the proposal titled "Reinitiating the Project "Molecular Mechanisms of Membrane-Dependent Activation of RAF Kinases."
45. **Matthew Leineweber** (Biomedical Engineering, San José State University)  
Award: \$1,500 for the proposal titled "3D Printed Infant Hand Prostheses."
46. **Sean Lema** (Biological Sciences, California Polytechnic State University, San Luis Obispo)  
Award: \$1,350 for the proposal titled "Molecular mechanisms underlying high temperature inhibition of reproduction in fish."
47. **Cheryl Logan** (Marine Science, California State University, Monterey Bay)  
Award: \$1,500 for the proposal titled "Effects of Pollution on Coral Thermotolerance in American Samoa."
48. **Carlos Luna-Lopez** (Biology, California State University San Marcos)  
Award: \$1,403 for the proposal titled "Cancer-associated adipocytes: Investigating the crosstalk between MD-MBA-231 and adipose."
49. **Ehsan Madadi** (Mechanical & Aerospace Engineering, California State University, Long Beach)  
Award: \$1,500 for the proposal titled "Numerical study of mixing and precipitation inside the Confined Impinging Jet (CIJ) mixer."
50. **Kalyani Maitra** (Chemistry, California State University, Fresno)  
Award: \$1,500 for the proposal titled "Lipid and Protein Accumulation in Algal Cells Grown in Wastewater."
51. **Justin Miller-Schulze** (Chemistry, California State University, Sacramento)  
Award: \$1,500 for the proposal titled "Reinitiating and Reengaging Student Research in the Miller-Schulze Laboratory."

52. **Bianca Mothé** (Biological Sciences, California State University San Marcos)  
Award: \$1,500 for the proposal titled “MHC Expression in Induced Pluripotent Stem Cells (iPSCs).”
53. **Hubert Muchalski** (Chemistry & Biochemistry, California State University, Fresno)  
Award: \$1,067 for the proposal titled “New methodologies free radical oxidation kinetics and synthesis of silyl enol ethers.”
54. **Vasanthi Narayanaswami** (Chemistry & Biochemistry, California State University, Long Beach)  
Award: \$1,500 for the proposal titled “Spectroscopic analysis of HDL following transcytosis across aortic endothelial cell.”
55. **Justus Ortega** (Kinesiology, Humboldt State University)  
Award: \$1,500 for the proposal titled “HSU Locomotion and Concussion Biomechanics Research Program Recovery.”
56. **Kodeeswaran Parameshwaran** (Biological Sciences, California State University, Chico)  
Award: \$1,500 for the proposal titled “Role of maspardin in endocytic trafficking of proteins.”
57. **Hyunsook Park** (Biological Sciences, California State University, Los Angeles)  
Award: \$1,500 for the proposal titled “Role of yeast casein kinase 2 in carbon metabolism and mitochondrial function of *Candida albicans*.”
58. **Stefan Paula** (Chemistry, California State University, Sacramento)  
Award: \$1,357 for the proposal titled “Preparation of enzyme samples needed for a drug discovery project.”
59. **Stevan Pecic** (Chemistry and Biochemistry, California State University, Fullerton)  
Award: \$1,500 for the proposal titled “Repair of Combi Flash System for the Purification of Small Molecules - Enzyme Inhibitors.”
60. **Dan Peterson** (Animal Science, California Polytechnic State University, San Luis Obispo)  
Award: \$1,500 for the proposal titled “Repair of Baker SG403A biosafety cabinet for resumption of cell culture and stem cell biology research and training activities.”
61. **Edith Porter** (Biological Sciences, California State University, Los Angeles)  
Award: \$1,500 for the proposal titled “Exploiting the Epithelial Cell – TH17 Axis for Novel Vaccine Design.”
62. **Bree Putman** (Biology, California State University, San Bernardino)  
Award: \$1,500 for the proposal titled “The effects of urbanization and biological invasions on the stress physiology of western fence lizards.”

63. **Linda Roberts** (Chemistry, California State University, Sacramento)  
Award: \$500 for the proposal titled "Lipid-binding and amyloid formation in non-human apolipoprotein A-I."
64. **Joseph Ross** (Biology, California State University, Fresno)  
Award: \$1,427 for the proposal titled "Paternal mitochondrial transmission patterns in hybrid worms."
65. **Melanie Sacco** (Biological Sciences, California State University, Fullerton)  
Award: \$1,427 for the proposal titled "Relaunch of Investigating Poleovirus Protein P0 Targeting of Plant Host Proteins for Degradation."
66. **Nicholas Salzameda** (Chemistry & Biochemistry, California State University, Fullerton)  
Award: \$1,500 for the proposal titled "Flow Reactor repair for the synthesis of pharmacologically active molecules."
67. **Erica Sanchez** (Biology, San Francisco State University)  
Award: \$1,500 for the proposal titled "Determining the Role of Viral G Protein-Coupled Receptor Host Protein Interactions."
68. **Parvin Shahrestani** (Biological Science, California State University, Fullerton)  
Award: \$1,500 for the proposal titled "The evolutionary genetics of host-microbiome interactions."
69. **Sudhir Shrestha** (Engineering Science, Sonoma State University)  
Award: \$1,470 for the proposal titled "Towards non-invasive blood glucose monitoring using breath volatile organic compounds: A novel method for developing machine learning models by placing sensors in real-life situations."
70. **Nandini Singh** (Anthropology, California State University, Sacramento)  
Award: \$1,500 for the proposal titled "A New Tool for 3D Reconstruction of Craniofacial Morphology of Experimental Rodent Models."
71. **Katarzyna Slowinska** (Chemistry & Biochemistry, California State University, Long Beach)  
Award: \$1,500 for the proposal titled "Testing the biological activity of peptide-based carriers for combination therapy on MCF-7 cells."
72. **Arun Sethuraman** (Biological Sciences, California State University San Marcos)  
Award: \$1,500 for the proposal titled "Deciphering the Evolutionary History of *Dinocampus coccinellae* (Hymenoptera: Braconidae)."
73. **Christy Strand** (Biological Sciences, California Polytechnic State University, San Luis Obispo)  
Award: \$1,500 for the proposal titled "Effects of feeding on neural cell proliferation and survival in ball pythons."

74. **Ga-Young Suh** (Biomedical Engineering, California State University, Long Beach)  
Award: \$1,500 for the proposal titled "Vascular Stent Design Using 3D Printing and Composite Materials."
75. **Rory Telemeco** (Biology, California State University, Fresno)  
Award: \$1,500 for the proposal titled "What is stress? Defining the physiological response to stressors with different energetic consequences."
76. **Masaki Uchida** (Chemistry & Biochemistry, California State University, Fresno)  
Award: \$1,500 for the proposal titled "Bioinspired materials synthesis across multiple length scales using protein cages."
77. **Tricia Van Laar** (Biology, California State University, Fresno)  
Award: \$1,500 for the proposal titled "Evolution of Antibiotic Resistance in *Klebsiella pneumoniae*."
78. **George Vourlitis** (Biology, California State University San Marcos)  
Award: \$1,500 for the proposal titled "Interactions between carbon type and nitrogen pollution on soil microbial activity and abundance."
79. **Fang Wang** (Biology, California State University, Dominguez Hills)  
Award: \$1,500 for the proposal titled "Reestablish zebrafish facility for research and teaching in biology."
80. **Sandra Ward** (Chemistry & Biochemistry, California Polytechnic State University, San Luis Obispo)  
Award: \$1,495 for the proposal titled "Glutathione sensitive Vesicles loaded into a pH sensitive hydrogel for multi-drug selective release."
81. **Daniel Whisler** (Mechanical Engineering, California State University, Long Beach)  
Award: 1500 for the proposal titled "Restarting Impact Science and Engineering (RISE) Projects."
82. **Brandon White** (Biological Sciences, San José State University)  
Award: \$1,500 for the proposal titled "Re-establishing Cell Culture Studies in the White Laboratory at SJSU."
83. **Mark Wilson** (Biology, Humboldt State University)  
Award: \$1,500 for the proposal titled "Restarting Microbiology Research."
84. **Howard Xu** (Biological Sciences, California State University, Los Angeles)  
Award: \$1,500 for the proposal titled "The role of hemO gene cluster in virulence of *Acinetobacter baumannii*."
85. **Marie Yeung** (Biology, California Polytechnic State University, San Luis Obispo)  
Award: \$1,500 for the proposal titled "Immobilization of bioactive agents on packaging film for enhancing microbial safety and extending the shelf life of fresh cheese."



86. **Mason Zhang** (Biological Sciences, California State University, Long Beach)  
Award: \$1,500 for the proposal titled “Protective Human Antimicrobial Antibodies.”

For more information about these grant programs, see the program portfolio at the CSUPERB website (<https://www.calstate.edu/impact-of-the-csu/research/csubiotech/Pages/grants-and-awards-programs.aspx>) or contact Ikhide Imumorin (Executive Director, CSUPERB; [iimumorin@sdsu.edu](mailto:iimumorin@sdsu.edu)). All CSUPERB grants and awards can be searched at the program's database: <http://csuperb.org/grants/database/>. Program impacts, including student outcomes and annual reports, can be found at the program dashboard: <https://csuperb.org/grants/csuperb-data-dashboard/>.