

CSUBIOTECH Announces 21 Grant Awards to CSU Faculty and Students at 11 Campuses

April 26, 2024

The California State University Biotechnology Program (CSUBIOTECH) is pleased to announce the Spring 2024 round of Seed Grant awards. Overall CSUBIOTECH is making 21 awards totaling \$312,919 to CSU faculty at 11 CSU universities.

Awards were made as part of three system-wide, competitive CSUBIOTECH seed grant programs: Curriculum Development, New Investigator, and Research Development. This round CSUBIOTECH received 54 proposals from faculty members at 20 different CSU campuses. Averaged across all programs, awards were made to 42% of the proposals received.

A. Curriculum Development Grant Awards

The Curriculum Development grant program supports the development or revision of innovative lower-level or introductory biotechnology-related courses, laboratories, and first-year experiences.

One CSUBIOTECH Curriculum Development Grant was approved for funding:

1. **Dermot Donnelly-Hermosillo** (Chemistry & Biochemistry, California State University, Fresno)
Award: \$15,000 for the proposal titled “Virtual Reality for Introductory Chemistry Courses (VRICC)”

B. Faculty-Student Collaborative Research New Investigator Grant Awards

The New Investigator Grant Program aims to provide CSU faculty with the resources required to successfully compete for follow-on, externally-funded grants and to involve CSU students in their research programs.

Sixteen CSUBIOTECH New Investigator Grants were approved for funding:

1. **Taylor Arhar** (Chemistry, San José State University)
Award: \$15,000 for the proposal titled “Functional Analysis of Prokaryotic J-domain Proteins”
2. **Mark Barash** (Justice Studies, San José State University)
Award: \$15,000 for the proposal titled “DNA2Face – an innovative machine learning approach for solving cold criminal cases”
3. **Emma Carroll** (Chemistry, San José State University)
Award: \$15,000 for the proposal titled “High-throughput Methods to Detect Ubiquitin-Induced Protein Conformational Changes”

4. **Andrew D'Lugos** (Kinesiology, California State University, Chico)
Award: \$15,000 for the proposal titled "Determining the impact of oral gelatin supplementation on skeletal muscle repair"
5. **Cynthia Hsu** (Biology, California State University, Fresno)
Award: \$15,000 for the proposal titled "Light Drives Sleep Independently of the Molecular Clock"
6. **Derek Hu** (Biomedical Engineering / Computer Engineering & Computer Science, California State University, Long Beach)
Award: \$15,000 for the proposal titled "Identifying Epileptiform Waveforms in Infantile Epilepsies using Time-Frequency Images"
7. **Ji-Hwan Kang** (Chemical Engineering, California State University, Long Beach)
Award: \$15,000 for the proposal titled "Multimaterial Multiphoton 3D Printing for Heterogeneous Dynamic Constructs"
8. **Leila Khatib** (Biological Science, San José State University)
Award: \$13,919 for the proposal titled "Riboswitches for F-specific bacteriophage monitoring"
9. **Eric Koehn** (Chemistry and Biochemistry, San Francisco State University)
Award: \$15,000 for the proposal titled "Investigating the flavin-dependent thymidylate synthase from Mycobacterium tuberculosis (M. tb)"
10. **Tatiane Lima** (Biological Sciences, California State Polytechnic University, Pomona)
Award: \$15,000 for the proposal titled "Neurodegenerative effects of Toxoplasma gondii infection"
11. **Maricela Maldonado** (Biomedical Engineering, California State University, Long Beach)
Award: \$15,000 for the proposal titled "3D hybrid scaffolds for pancreatic organoid maturation"
12. **Peter Ramirez** (Biological Sciences, California State University, Long Beach)
Award: \$15,000 for the proposal titled "Determining the prevalence and impact of the SARS-CoV-2 Spike/CD4 interaction"
13. **Jinae Roa** (Biological Sciences, California State University, Los Angeles)
Award: \$15,000 for the proposal titled "Coupling of Acid-Base Regulation and Energy Metabolism in Ray Gill Cells"
14. **Abigail Rodriguez Morales** (Biological Sciences, California State University, East Bay)
Award: \$15,000 for the proposal titled "Investigating the Role of DNA Damage in Modulating Transcriptional Responses During Listeria monocytogenes Infection"
15. **Tricia Van Laar** (Biological Sciences, California State University, Stanislaus)
Award: \$15,000 for the proposal titled "Investigating Microbiome and Immune Response Dynamics during Avian Malaria Infection in Migratory Birds"

16. **Julie Wahlman** (Chemistry and Biochemistry, California State University, Long Beach)
Award: \$15,000 for the proposal titled “Establishing a New Route for the Synthesis of a-Arylated Bioactive Dihydrobenzofurans”

C. Faculty-Student Collaborative Research Development Grant Awards

The Research Development Grant program aims to provide CSU faculty with support to fill gaps in external funding for ongoing research projects or to pilot new, but as-yet unfunded, research directions for established investigators.

Four CSUBIOTECH Research Development Grants were approved for funding:

1. **Karen May-Newman** (Mechanical Engineering, San Diego State University)
Award: \$14,000 for the proposal titled “Activation of Aortic Valve Remodeling from Hemodynamic Closure”
2. **Elizabeth Skovran** (Biological Sciences, San José State University)
Award: \$15,000 for the proposal titled “The impact of phosphate availability on methylotrophy”
3. **Melissa Takahashi** (Biology, California State University, Northridge)
Award: \$15,000 for the proposal titled “Developing a genetic circuit to monitor small RNAs in bacteria”
4. **Katherine Waselkov** (Biology, California State University, Fresno)
Award: \$15,000 for the proposal titled “Investigating Herbicide Resistance in Common Chickweed in Central Valley Small Grain Crops”

For more information about these grant programs, see the program portfolio at the CSUBIOTECH website (<https://www.calstate.edu/impact-of-the-csu/research/csubiotech/Pages/grants-and-awards-programs.aspx>) or contact Ikhide Imumorin, Executive Director, CSUBIOTECH; iimumorin@sdsu.edu).