

CSUPERB Announces 36 Grant Awards to CSU Faculty and Students at 16 Campuses

May 5, 2014

CSUPERB is pleased to announce the spring 2014 round of major grant awards. Overall CSUPERB is making 36 awards totaling \$548,859 to CSU faculty at 17 CSU universities.

Awards were made as part of four competitive CSUPERB grant programs: New Investigator, Research Development, Entrepreneurial Joint Venture and Curriculum Development. CSUPERB reviewed 107 proposals from faculty members at 19 different CSU campuses. Averaged across all programs, awards were made to 33% of the proposals received. Individual awards are listed below.

A. 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.

Nineteen CSUPERB New Investigator Grants were approved for funding:

- 1. Catherine Brennan** (Biological Sciences, CSU Fullerton)
Award: \$15,000 for the proposal titled "Role of Psidin in the Regulation of Phagosome Maturation"
- 2. Cory Brooks** (Chemistry, CSU Fresno)
Award: \$15,000 for the proposal titled "Nanobodies for the Neutralization of *Listeria monocytogenes*"
- 3. Jenny Cappuccio** (Chemistry, Humboldt State University)
Award: \$15,000 for the proposal titled "Anabaena Sensory Rhodopsin Nanodiscs to Probe Transcriptional Regulation"
- 4. Troy Cline** (Biological Sciences, CSU Chico)
Award: \$15,000 for the proposal titled "Mechanism and functional impact of influenza virus replication in macrophages"
- 5. Tyler Evans** (Biological Sciences, CSU East Bay)
Award: \$15,000 for the proposal titled "Functional characterization of temperature-regulated gene expression in zebrafish"
- 6. Clinton Francis** (Biological Sciences, Cal Poly San Luis Obispo)
Award: \$15,000 for the proposal titled "Fitness consequences of anthropogenic noise exposure in nesting songbirds"
- 7. Karine Gousset** (Biology, CSU Fresno)
Award: \$15,000 for the proposal titled "Microproteomic analysis of laser capture microdissected cells forming TNTs"

- 8. Kambiz Hamadani** (Chemistry and Biochemistry, CSU San Marcos)
Award: \$15,000 for the proposal titled "Expanding the Scope of Single Molecule Fluorescence Spectroscopy"
- 9. Benjamin Hawkins** (Biomedical, Chemical, and Materials Engineering; San Jose State University)
Award: \$15,000 for the proposal titled "Microfluidic Devices for Multiplexed Growth and Analysis of Mycobacterium smegmatis Biofilms"
- 10. Jonathan Kelber** (Biology, CSU Northridge)
Award: \$15,000 for the proposal titled "PEAK1-Mediated HER2 Functions and Herceptin Resistance in Breast Cancer"
- 11. Quinn McFrederick** (Biology, CSU Fresno)
Award: \$15,000 for the proposal titled "Flower- and bee-associated bacteria as pollinator probiotics"
- 12. Niroshika Monerawila Keppetipola** (Chemistry and Biochemistry, CSU Fullerton)
Award: \$15,000 for the proposal titled "Role of Post-Translational Modifications in the Splicing Activity of Polypyrimidine Tract Binding Protein"
- 13. Tomasz Owerkowicz** (Biology, CSU San Bernardino)
Award: \$15,000 for the proposal titled "Heart Repair and Regeneration in Reptiles"
- 14. James Parham** (Geological Sciences, CSU Fullerton)
Award: \$14,705 for the proposal titled "Sequencing and bioinformatics of slider turtle genomes: A system for evolutionary studies, conservation, and student opportunity"
- 15. Ertan Salik** (Physics, Cal Poly Pomona)
Award: \$15,000 for the proposal titled "Ultrasensitive and Robust Fiber Optic Biosensor for Rapid Immunoassays"
- 16. Elizabeth Skovran** (Biological Sciences, San Jose State University)
Award: \$15,000 for the proposal titled "Elucidation of the complex regulatory network controlling methanol dehydrogenase expression in Methylobacterium extorquens"
- 17. Andrew Steele** (Biological Sciences, Cal Poly Pomona)
Award: \$15,000 for the proposal titled "Investigation the Role of Dopamine Receptor 1 Neurons in Mediating Circadian Rhythms Entrained by Feeding"
- 18. Enrico Tapavicza** (Chemistry & Biochemistry, CSU Long Beach)
Award: \$15,000 for the proposal titled "Ab Initio Modeling of Vitamin D Photosynthesis in solution"
- 19. Katie Wilkinson** (Biological Sciences, San Jose State University)
Award: \$15,000 for the proposal titled "The Effect of Obesity on Muscle Sensory Neuron Function"

B. 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.

Eleven CSUPERB Research Development Grants were approved for funding:

- 1. Judy Brusslan** (Biological Sciences, CSU Long Beach)
Award: \$15,000 for the proposal titled “Genetic Analysis of Histone Methyltransferases and Demethylases in Leaf Senescence”
- 2. Ralph Feuer** (Biology, San Diego State University)
Award: \$15,000 for the proposal titled “Characterization of a Novel Exit Strategy for Coxsackievirus B (CVB) via Shed Microvesicles Displaying Autophagosomal Markers”
- 3. Sergio Iniguez** (Psychology, CSU San Bernardino)
Award: \$11,680 for the proposal titled “Consequences of Ketamine exposure during adolescence on drug-seeking behavior in adulthood”
- 4. David Keller** (Biological Sciences, CSU Chico)
Award: \$15,000 for the proposal titled “A primate-specific double-negative feedback loop between microRNA-375 and the transcriptional repressor CREM”
- 5. Scott Kelley** (Biology, San Diego State University)
Award: \$10,700 for the proposal titled “Development of Mobile Bioinformatics Training Apps for Biotechnology”
- 6. Andrew Kinziger** (Fisheries Biology, Humboldt State University)
Award: \$15,000 for the proposal titled “Using environmental DNA in water samples for presence/absence detection of endangered species”
- 7. Brian Livingston** (Biological Sciences, CSU Long Beach)
Award: \$15,000 for the proposal titled “Analysis of conserved proteins involved in skeleton formation”
- 8. Cheryl Logan** (Science and Environmental Policy, CSU Monterey Bay)
Award: \$15,000 for the proposal titled “Roles of acclimatization & adaptation in responding to climate change”
- 9. Michael Summers** (Biology, CSU Northridge)
Award: \$15,000 for the proposal titled “Characterization of cyanobacterial lipid droplets”
- 10. Peter van der Geer** (Chemistry and Biochemistry, San Diego State University)
Award: \$11,985 for the proposal titled “Identification of a novel phosphotyrosine-binding domain in STS-1”
- 11. Miri VanHoven** (Biological Sciences, San Jose State University)
Award: \$15,000 for the proposal titled “Behavioral Consequences of Manipulating Axon Outgrowth Termination Signals”

C. Entrepreneurial Joint Venture Matching Grant Awards

The Joint Venture Grant Program aims to increase collaboration between CSU faculty and other partners or institutions external to the CSU. CSUPERB recognized that such collaborations broaden the opportunities to pilot innovative biotechnology projects across the CSU, promote multi-disciplinary partnerships and encourage product development and other outreach activities.

Four CSUPERB Joint Venture Grants were approved for funding:

1. **Joseph Chen** (Biology, San Francisco State University)
Award: \$22,319 for the proposal titled "Streamlining gene deletions in bacteria"
2. **Ray Hong** (Biology, CSU Northridge)
Award: \$15,000 for the proposal titled "Mode of Action of Boron-Based Anthelmintic Compounds in *C. elegans*"
3. **Rafael Jimenez-Flores** (Dairy Science / Dairy Products Technology Center, Cal Poly San Luis Obispo)
Award: \$25,000 for the proposal titled "Study of the increase in activity of corn-produced Hepatitis B vaccine by supercritical CO₂."
4. **Marcelo Tolmasky** (Biological Science, CSU Fullerton)
Award: \$25,000 for the proposal titled "Dealing with the antibiotic resistance crisis: the search for inhibitors of aminoglycoside modifying enzymes"

D. Curriculum Development Grant Awards

The Curriculum Grant Program aims to support innovative educational practices in biotechnology and support the adoption of emerging technology.

Two CSUPERB Curriculum Grants were approved for funding:

1. **Christopher Kitts** (Biological Sciences, Cal Poly San Luis Obispo)
Award: \$7,470 for the proposal titled "A Case-Study Based Introductory Biotechnology Course Including Assessment for Retention in the Biotechnology Minor"
2. **Hao Nguyen** (Biological Sciences, CSU Sacramento)
Award: \$15,000 for the proposal titled "Sustainable Science: Redesign of the Introduction to Cells, Molecules and Genes Laboratory"

For more information about these grant programs, see the CSUPERB website (<http://www.calstate.edu/csuperb/grants/>) or contact Susan Baxter, Executive Director, CSUPERB (sbaxter@mail.sdsu.edu). The database of CSUPERB grant awards can be searched at: <http://www.calstate.edu/csuperb/grant-abstracts/author.shtml>.