

## CSUPERB Announces 35 Grant Awards to CSU Faculty and Students at 14 Campuses

June 23, 2015

CSUPERB is pleased to announce the spring 2014 round of major grant awards. Overall CSUPERB is making 35 awards totaling \$553,578 to CSU faculty at 14 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 98 proposals from faculty members at 21 different CSU campuses. Averaged across all programs, awards were made to 36% 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.

Twenty CSUPERB New Investigator Grants were approved for funding:

1. **Carolynn Arpin** (Chemistry and Biochemistry, CSU Chico)  
Award: \$15,000 for the proposal titled "Generation of Dimeric GRB2 Antagonists to Treat Myeloid Leukemia"
2. **Renaud Berlemont** (Biological Sciences, CSU Long Beach)  
Award: \$14,997 for the proposal titled "Hamster Gut Metagenome and Physiology"
3. **Deepali Bhandari** (Chemistry and Biochemistry, CSU Long Beach)  
Award: \$15,000 for the proposal titled "Unraveling Cell Survival Mechanisms During Endoplasmic Reticulum Stress"
4. **Kerry Cooper** (Biology, CSU Northridge)  
Award: \$14,895 for the proposal titled "The role of RpoS and methylation of DNA in Escherichia coli"
5. **Laurent Dejean** (Chemistry, CSU Fresno)  
Award: \$15,000 for the proposal titled "Regulatory cross-talk between apoptosis and metabolism: a metabolomics study"
6. **Amanda Evans** (Chemistry and Biochemistry, CSU Fullerton)  
Award: \$15,000 for the proposal titled "Continuous Flow Synthesis of Fibromyalgia Pharmaceuticals"
7. **Gilberto Flores** (Biology, CSU Northridge)  
Award: \$14,656 for the proposal titled "Microbial interactions in salt marsh environments through space and time"

- 8. Jeffrey Gustafson** (Chemistry and Biochemistry, San Diego State University)  
Award: \$15,000 for the proposal titled "Atropisomer preorganized  $\alpha$ -helix mimics as selective inhibitors of anti-apoptotic proteins"
- 9. Robert Iafe** (Chemistry and Biochemistry, CSU San Marcos)  
Award: \$15,000 for the proposal titled "Bisphosphorylimides as Organocatalysts for Asymmetric Friedel-Crafts Reactions"
- 10. Eric Jones** (Chemistry and Biochemistry, Cal Poly, San Luis Obispo)  
Award: \$15,000 for the proposal titled "Amyloidogenic peptide templating and metal nanoparticle reduction: Development of a simple, instrument-free method for detection of amyloid proteins"
- 11. Tyler Luchko** (Physics and Astronomy, CSU Northridge)  
Award: \$15,000 for the proposal titled "Fast, accurate drug binding calculations using controlled physical approximations"
- 12. Hamid Mahmoodi** (Engineering, San Francisco State University)  
Award: \$15,000 for the proposal titled "Hardware-Software Co-Design Platform for Efficient Brain Modeling Research"
- 13. Timothy Miles** (Division of Science and Environmental Policy, CSU Monterey Bay)  
Award: \$14,300 for the proposal titled "Developing molecular tools for the plant pathogen Rhizoctonia"
- 14. Laura Miller** (Chemistry, San José State University)  
Award: \$15,000 for the proposal titled "Inhibition of an antibiotic resistance pathway in *Pseudomonas aeruginosa*"
- 15. Douglas Pace** (Biological Sciences, CSU Long Beach)  
Award: \$15,000 for the proposal titled "Quantitative determination of protein synthesis rates in the human parasite, *Toxoplasma gondii*, and its link to host-cell invasion."
- 16. Byron Purse** (Chemistry and Biochemistry, San Diego State University)  
Award: \$15,000 for the proposal titled "Modifying Drugs and Molecular Probes for Enhanced Delivery using One-Step Diazo Chemistry"
- 17. Jamie Snyder** (Biological Sciences, Cal Poly, Pomona)  
Award: \$15,000 for the proposal titled "Elucidating the genome packaging and assembly of an archaeal virus"
- 18. Andrea Swei** (Biology, San Francisco State University)  
Award: \$15,000 for the proposal titled "Genotypic variation in a key virulence gene in *Borrelia burgdorferi*"
- 19. Fang Wang** (Biology, CSU Dominguez Hills)  
Award: \$15,000 for the proposal titled "Identification of genes involved in interactions of touch-sensing neurons and skin"

**20. Katharine Watts** (Chemistry and Biochemistry, Cal Poly, San Luis Obispo)

Award: \$15,000 for the proposal titled "Engineering a natural product assembly line for production of the drug Carfilzomib"

**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. Nancy Buckley** (Biological Sciences, Cal Poly, Pomona)

Award: \$15,000 for the proposal titled "Investigating the effect of delta-9-tetrahydrocannabinol (THC) on the susceptibility to systemic *C. albicans* infection in mice treated with an anti-cancer drug"

**2. Laura Burrus** (Biology, San Francisco State University)

Award: \$15,000 for the proposal titled "Validation of NPC2 and PPT1 as regulators of Wnt signaling"

**3. Qiao-Hong Chen** (Chemistry, CSU Fresno)

Award: \$15,000 for the proposal titled "Optimization of Ditylpentadienones as Chemotherapeutics for Prostate Cancer"

**4. Karen Crow** (Biology, San Francisco State University)

Award: \$15,000 for the proposal titled "Comparing correlates of mating strategy and female Bateman gradients in the wild using next generation sequencing"

**5. Steven Dudgeon** (Biology, CSU Northridge)

Award: \$14,730 for the proposal titled "Asexuality and the cryptic species identification problem"

**6. Stephen Klisch** (Mechanical Engineering, Cal Poly, San Luis Obispo)

Award: \$15,000 for the proposal titled "Experimental and computational analyses of joint and tissue loading in ACL reconstructed and contralateral knees"

**7. Sean Lema** (Biological Sciences, Cal Poly, San Luis Obispo)

Award: \$15,000 for the proposal titled "Genetic and epigenetic variation in *pitx1* as a basis for temperature-mediated morphological divergence"

**8. Blake Riggs** (Biology, San Francisco State University)

Award: \$15,000 for the proposal titled "A deficiency-based modifier screen for regulation of ER shaping GTPase, Atlastin"

**9. Elizabeth Waters** (Biology, San Diego State University)

Award: \$15,000 for the proposal titled "Boechera likes it very hot: thermotolerance mechanisms in plants"

**10. Roland Wolkowicz** (Biology, San Diego State University)

Award: \$15,000 for the proposal titled "A cell based assay for the search of competitors of HIV-1 Envelope processing"

**11. Howard Xu** (Biological Sciences, CSU Los Angeles)

Award: \$15000 for the proposal titled “The role of hemO gene cluster in virulence of *Acinetobacter baumannii*”

**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.

Three CSUPERB Joint Venture Grants were approved for funding:

**1. Jonathan Kelber** (Biology, CSU Northridge)

Award: \$25,000 for the proposal titled “RNA extraction tools and methods for improved high throughput FFPE NGS”

**2. Vasanthi Narayanaswami** (Chemistry and Biochemistry, CSU Long Beach)

Award: \$25,000 for the proposal titled “ApoE/Gold Nanoparticles as drug delivery agents across the blood brain barrier”

**3. Jacqueline Lilia Padilla-Gamino** (Biology, CSU Dominguez Hills)

Award: \$25,000 for the proposal titled “Identifying climate change resistant genotypes of the farmed *Mytilus galloprovincialis*: exploring the role of maternal effects”

**D. Curriculum Development Grant Awards**

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

One CSUPERB Curriculum Grants were approved for funding:

**1. Katherine Wilkinson** (Biological Sciences, San José State University)

Award: \$15,000 for the proposal titled “Aligning SJSU’s Introductory Biology Core to the Vision & Change Recommendations”

*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](mailto:sbaxter@mail.sdsu.edu)). The database of CSUPERB grant awards can be searched at: <http://www.calstate.edu/csuperb/grant-abstracts/author.shtml>.*