

CSUPERB Announces 56 Grant Awards to CSU Students and Faculty at 17 Campuses

May 17, 2010

CSUPERB is pleased to announce the spring 2010 round of grant awards from five competitive grants programs: the Faculty-Student Collaborative Research Seed Grants, Entrepreneurial Joint Venture Matching Grants, Biotechnology Programmatic Development Grants, and Faculty and Student Travel Grants. Overall CSUPERB made 56 awards totaling \$593,568 to 10 CSU students and 44 CSU faculty at 17 campuses. These grant awards provide support for collaborative student and faculty biotechnology research projects, for innovative educational practices and for professional development to close the gap between CSU-based learning and life science industry practice.

The CSUPERB grants programs continue to be highly competitive. CSUPERB received 158 proposals from faculty and students at 21 different CSU universities. Awards were made to faculty from a diverse range of academic disciplines, including biology, engineering and mathematics. Overall, awards were made to 35% of proposals received. More details about awards made in each program can be found below.

A. 26 Faculty-Student Collaborative Research Seed Grant awards (“Seed Grants”) totaling \$388,584 to CSU faculty from 15 different campuses were made this round of funding. The Seed Grants program aims to increase the overall number of externally funded research investigators across the CSU. These grants provide CSU faculty with support for pilot research projects so they can compete for follow-on, externally-funded grants, but also involve CSU students in their research programs.

The following CSUPERB Seed Grants were approved:

1. **John Bushoven** (Plant Science, CSU Fresno)
Award: \$15,000 for the proposal titled “Induction of Somatic Embryogenesis in *Jatropha curcas L.* Cell Cultures.”
2. **Megumi Fuse** (Biology, San Francisco State University)
Award: \$ 14,995 for the proposal titled “Systemic Responses to Tissue Damage and Regeneration.”

3. **Maria Gallegos** (Biology, CSU East Bay)
Award: \$15,000 for the proposal titled “Molecular and Cellular Mechanisms Driving Mechanosensory Neurite Tiling in *C. elegans*.”
4. **Benjamin Gherman** (Chemistry, CSU Sacramento)
Award: \$15,000 for the proposal titled “Computational Investigation of the Catalytic Mechanism of the Metalloenzyme Peptide Deformylase via Functionalization of a Biomimetic Ligand System.”
5. **Enid Gonzalez** (Biological Sciences, CSU Sacramento)
Award: \$ 14,174 for the proposal titled “Metagenomic and Metabolic Study of Bacteria in California Vernal Pools.”
6. **Hope Johnson** (Biological Science, CSU Fullerton)
Award: \$15,000 for the proposal titled “Mn(II) Oxidation and Peroxide Stress Tolerance in Bacteria.”
7. **David Keller** (Biological Sciences, CSU Chico)
Award: \$15,000 for the proposal titled “Regulation of MicroRNA-375 by Cyclic AMP in Pancreatic Beta Cells.”
8. **Mallika Keralapura** (Electrical Engineering, San José State University)
Award: \$15,000 for the proposal titled “Trans-rectal Ultrasound Strain Imaging for Prostate Thermal Therapy.”
9. **Yu Jung Kim** (Chemistry & Biochemistry, CSU San Bernardino)
Award: \$14,949 for the proposal titled “Study of Hvmr1 Transposition in Human Cells.”
10. **Panadda Marayong** (Mechanical and Aerospace Engineering, CSU Long Beach)
Award: \$14,975 for the proposal titled “Gait Analysis of Bilateral Transtibial Amputees.”
11. **James Miranda** (Chemistry Department, CSU Sacramento)
Award: \$15,000 for the proposal titled “Diastereo- and Enantioselective Epoxidations using Chiral Salen Vanadium Catalysts.”
12. **James Murray** (Biological Sciences, CSU East Bay)
Award: \$15,000 for the proposal titled “Chemical Warfare in the Ocean: How Marine Slugs Prey Upon Toxic Animals.”

13. **Sean Murray** (Biology, CSU Northridge)
Award: \$15,000 for the proposal titled "Identification and Overexpression of Bacterial Esterases useful in Synthetic Chemistry."
14. **Nikolas Nikolaidis** (Biological Science, CSU Fullerton)
Award: \$15,000 for the proposal titled "Functional Annotation of the Lipid Binding Regions of HSPA1A, a Member of the Hsp70 Protein Family."
15. **Nitika Parmar** (Biology, CSU Channel Islands)
Award: \$14,650 for the proposal titled "Isolation and Identification of Novel Bioplastic Producing Bacteria."
16. **Melanie Sacco** (Biological Science, CSU Fullerton)
Award: \$15,000 for the proposal titled "Development of a New Model System to Investigate the Molecular Basis of Disease Resistance in Plants."
17. **David Saiki** (Chemistry, CSU Bakersfield)
Award: \$15,000 for the proposal titled "Towards Thermal Lens Spectroscopy to Study Thermal Stability of Insulin Hexamers in Solution."
18. **Alexander Small** (Physics, California State Polytechnic University, Pomona)
Award: \$14,936 for the proposal titled "Computational Methods for Fluorescence Imaging of Cells with Nanometer Resolution."
19. **Michael Summers** (Biology, CSU Northridge)
Award: \$15,000 for the proposal titled "Cyanobacterial Biofuel Production."
20. **Robert Szlavik** (Biomedical & General Engineering, California State Polytechnic University, San Luis Obispo)
Award: \$14,919 for the proposal titled "Determination of Peripheral Nerve Conduction Velocity Distributions Using a Novel Electrophysiology Technique."
21. **Houng-Wei Tsai** (Biological Sciences, CSU Long Beach)
Award: \$15,000 for the proposal titled "Identification of Novel Sexually Dimorphic Genes in the Mouse Brain."
22. **Miri VanHoven** (Biological Sciences, San José State University)
Award: \$15,000 for the proposal titled "Genetic Analysis of Signals that Terminate Axon Outgrowth."

23. **Satchi Venkataraman** (Aerospace Engineering & Engineering Mechanics, San Diego State University)
Award: \$15,000 for the proposal titled “Positioning and Manipulation of Micro and Nano-Sized Particles Using Acoustic Manipulation and In-Plane Stress Actuation.”
24. **Andrew Voss** (Biological Sciences, California State Polytechnic University, Pomona)
Award: \$14,987 for the proposal titled “Examining a novel signaling Mechanism in Skeletal Muscle: Implications for Treating Muscle Fatigue and Myotonia.”
25. **Hwan Youn** (Biology, CSU Fresno)
Award: \$15,000 for the proposal titled “A Reverse Genetics Study of a Potential cAMP Sensor from *Pseudomonas aeruginosa*.”
26. **Yuanxiang Zhao** (Biological Sciences, California State Polytechnic University, Pomona)
Award: \$15,000 for the proposal titled “A New Method for Culturing Induced Pluripotent Stem Cells.”

B. 4 Entrepreneurial Joint Venture Matching Grant awards (“JV Grants”)

totaling \$99,793 to CSU faculty from 3 different campuses were made this round of funding. The JV grant program aims to increase collaboration between CSU faculty and other partners or institutions external to the CSU. CSUPERB recognizes that such collaborations broaden the opportunities to pilot innovative biotechnology projects across the CSU, promote multi-disciplinary partnerships, and encourage product development and other translational and outreach activities.

The following CSUPERB Joint Venture grants were approved:

1. **Laura Burrus** (Biology, San Francisco State University)
Award: \$25,000 for the proposal titled “Porcupine Bioconformatics.”
2. **Kelly Doran** (Biology, San Diego State University)
Award: \$25,000 for the proposal titled “Characterization of a Novel Adjuvant for Treatment of MRSA Infection and Vaccine Development.”
3. **Scott Russell** (Chemistry, CSU Stanislaus)
Award: \$24,893 for the proposal titled “Characterization of Pichia Expressed AhRCΔ553 Post-translational Modifications Related to Anti-tumor Activity.”
4. **Rahul Singh** (Computer Science, San Francisco State University)
Award: \$24,900 for the proposal titled “Computational Phenomics-Based High-Throughput Drug Discovery.”

C. 6 Biotechnology Programmatic Development Grant awards (“Programmatic Grants”) totaling \$85,484 to CSU faculty from 4 different campuses were made this round of funding. The Programmatic Grant program aims to increase cross-disciplinary faculty involvement in biotechnology and to support emerging areas, or interfaces, of biotechnology across the CSU system. The 2010 Programmatic Request for Proposal (RFP) specifically emphasized the development of innovative cross-disciplinary curriculum, workshops, teaching strategies, or facilities containing specialized equipment that require collaboration of faculty representing more than one disciplinary area.

The following CSUPERB Programmatic grants were approved:

1. **Martina Bremer** (Mathematics, San José State University)
Award: \$15,000 for the proposal titled “Development of Introductory Biotechnology Course.”
2. **Arturo Concepcion** (Computer Science and Engineering, California State University, San Bernardino)
Award: \$15,000 for the proposal titled “Developing Projects for the Advanced Bioinformatics I: Sequence Analysis Course.”
3. **Steven Lee** (Forensic Science & Justice Studies, San José State University)
Award: \$15,000 for the proposal titled “Forensic Biometrics Course Development.”
4. **Bori Mazzag** (Mathematics, Humboldt State University)
Award: \$11,115 for the proposal titled “Introductory Mathematical Modeling for Biotechnology.”
5. **Melanie McNeil** (Chemical and Materials Engineering, San José State University)
Award: \$14,369 for the proposal titled “Implementation of Bioengineering Laboratory Course.”
6. **Lisa Ott** (Chemistry and Biochemistry, California State University, Chico)
Award: \$15,000 for the proposal titled “Equipment for Interdisciplinary Biofuels Research in the Collaborative Center for Ecosystem Research.”

D. 10 Faculty Travel Grant awards totaling \$9,980 to CSU faculty from 8 different campuses were made this round of funding. The Faculty Travel Grant Program is intended to support travel to biotechnology-related data collection sites, professional meetings, and workshops.

The following CSUPERB Faculty Travel Grants were approved:

1. **Arlette Baljon** (Physics, San Diego State University)
Award: \$980 for travel to present research at the Annual Meeting of American Physical Society (March 15-18, 2010) in Portland, Oregon
2. **Yu Cao** (Computer Science, CSU Fresno)
Award: \$1,000 for travel to present research at the IEEE Computer Society Workshop on Mathematical Methods in Biomedical Image Analysis (June 13-18, 2010) in San Francisco, California
3. **Katherine Kantardjieff** (Chemistry, California State Polytechnic University, Pomona)
Award: \$1,000 for travel to present research at the European Crystallographic Association Meeting (August 29- September 2, 2010) in Darmstadt, Germany
4. **Panadda Marayong** (Mechanical and Aerospace Engineering, CSU Long Beach)
Award: \$1,000 for travel to present research at the American Society of Mechanical Engineers Design of Medical Devices Conference (April 13-15, 2010) in Minneapolis, Minnesota
5. **Bori Mazzag** (Mathematics, Humboldt State University)
Award: \$1,000 for travel to present research at the Society for Mathematical Biology Annual Meeting (July 26-29, 2010) in Rio de Janeiro, Brazil
6. **Stephanie Molloy** (Biological Sciences, CSU East Bay)
Award: \$1,000 for travel to present research at the American Society for Microbiology Meeting (May 23-27, 2010) in San Diego, California
7. **Vasanthi Narayanaswami** (Chemistry & Biochemistry, CSU Long Beach)
Award: \$1,000 for travel to present research at the 1st Annual World Congress "From Nervous Function to Treatment" (June 25-28, 2010) in Singapore
8. **Christopher Smith** (Biology, San Francisco State University)
Award: \$1,000 for travel to present research at the International Union for the Study of Social Insects Meeting (August 8-14, 2010) in Copenhagen, Denmark
9. **Kathy Szick-Miranda** (Biology, CSU Bakersfield)
Award: \$1,000 for travel to present research at the American Society of Microbiology Meeting (May 23-27, 2010) in San Diego, California
10. **Elizabeth Waters** (Biology, San Diego State University)
Award: \$1,000 for travel to present research at the Plant Biology 2010 Meeting (July 31-August 4, 2010) in Montreal, Canada

E. 10 CSU Student Travel Grant awards totaling \$9,727 to students from 6 different campuses were made in this round of funding. The Student Travel Grant Program is intended to support travel to biotechnology-related data collection sites, professional meetings and workshops.

The following CSUPERB Student Travel grants were approved:

1. **Nicola Clayton** (Chemistry, CSU Sacramento)
Mentor: John Spence
Award: \$752 for travel to present research at the American Chemical Society Meeting and Exposition (March 21-25, 2010) in San Francisco, California
2. **Henry Hunter** (Cell and Molecular Biology, San Francisco State University)
Mentor: Christopher Smith
Award: \$1,000 for travel to present research at the Arthropod Genomics Symposium (June 10-13, 2010) in Kansas City, Missouri
3. **Kate Karfilis** (Biological Sciences, California Polytechnic State University, San Luis Obispo)
Mentor: Ken Hillers
Award: \$1,000 for travel to present research at the Gordon Research Conference on Meiosis (June 12-18, 2010) in New London, New Hampshire
4. **Teresa Laird** (Biology, San Francisco State University)
Mentor: Christopher Smith
Award: \$1,000 for travel to present research at the Drosophila Research Conference (April 7-11, 2010) in Washington, D.C.
5. **Anh Lien** (Biological Science, CSU Fullerton)
Mentor: Hope Johnson
Award: \$1,000 for travel to present research at the American Society for Microbiology Meeting (May 23-27, 2010) in San Diego, California
6. **Sandra Melloy** (Biology, San Francisco State University)
Mentor: José de la Torre
Award: \$1,000 for travel to present research at International Symposium on Microbial Ecology (August 22-27, 2010) in Seattle, Washington

7. **Kathy Seiber** (Biological Sciences, CSU East Bay)
Mentor: Stephanie Molloy
Award: \$1,000 for travel to present research at the American Society for Microbiology Meeting (May 23-27, 2010) in San Diego, California

8. **Soha Sobhanian** (Biological Science, CSU Fullerton)
Mentor: Melanie Sacco
Award: \$1,000 for travel to present research at the Plant Biology Meeting (July 31-August 4, 2010) in Montreal, Canada

9. **Brandon Tan** (Biological Sciences, California Polytechnic State University, Pomona)
Mentor: Jill Adler-Moore
Award: \$975 for travel to present research at the American Society of Virology Meeting (July 17-21, 2010) in Bozeman, Montana

10. **Camilla Teng** (Biology, San Francisco State University)
Mentor: Laura Burrus
Award: \$1,000 for travel to present research at the Society for Developmental Biology Meeting (August 5-9, 2010) in Albuquerque, New Mexico

For more information about these grant programs, see the CSUPERB website (<http://www.calstate.edu/csUPERB/grants/>) or contact Rajni Garg, CSUPERB Director of Grants & Awards (rgarg@mail.sdsu.edu).