

## CURRICULUM DEVELOPMENT GRANT PROGRAM 2018 REQUEST FOR PROPOSALS

[www.calstate.edu/csuperb](http://www.calstate.edu/csuperb)

### **Key Dates & Information:**

RFP Release Date: August 18, 2017

Proposal Due Date: February 5, 2018 before 5:00 p.m. pacific time

Award Notification: May, 2018

Maximum Award Amount: \$15,000

Project Duration: Up to 18 months from the project start date (approximately June 1, 2018)

### **Program Description:**

The California State University Program for Education and Research in Biotechnology (CSUPERB) aims to innovate biotechnology education across the CSU. Education researchers, federal agencies, employers and professional societies have called for change in undergraduate life science education and other biotechnology-related disciplines.<sup>1,2,3</sup> Curriculum improvement efforts aim not only to increase student engagement and retention, but also to ensure undergraduate education reflects “how science is done in the laboratory and in the field.”<sup>2</sup> In addition, life science employers have emphasized the workforce need for a “convergence of disciplines and the need ‘to marry technical disciplines,’ such as engineering and biology, chemistry and information technology.”<sup>4</sup>

The 2018 Curriculum Development grant program will support the development of innovative general education courses, laboratories, and first-year experiences, as well as revisions to lower-level or introductory biotechnology-related courses. CSUPERB emphasizes the system-wide dissemination of curricular materials and outcomes across the CSU system to engage, impact and prepare students in biotechnology.

### **2018 Proposal Review Criteria:**

- Proposed projects must be original and/or innovative.
- Proposed projects must directly engage and impact first- or second-year (lower division) CSU students.
- Proposed projects must address the three major tenets of scientific teaching: active learning, student diversity and assessment (see Handelsman citation below for more information).
- Projects must be feasible within the time and budget proposed. If relevant, projects must be feasible within campus administrative frameworks for course development and approval; successful proposals will include letters of support from appropriate chairs and/or deans.
- Proposed projects must have a plan to publish or share project work, student learning outcomes and evaluations with CSU colleagues system-wide.
- In keeping with calls for plain writing to improve science and technical communication, CSUPERB review panels will consider the effectiveness of the non-technical abstract in their assessment of proposals (see paper by Rakedzon and coworkers, <http://bit.ly/2uMqkpt>).

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<sup>1</sup> Handelsman, Ebert-May, Beichner, Bruns, Chang, DeHaan, Gentile, Lauffer, Stewart, Tilghman & Wood (2004) Scientific Teaching. *Science* 304: 521-522. Available online:

<http://www.sciencemag.org/content/304/5670/521.full>

<sup>2</sup> Vision & Change in Undergraduate Biology Education (2011). AAAS & National Science Foundation. Available at: <http://visionandchange.org/files/2011/03/Revised-Vision-and-Change-Final-Report.pdf>

<sup>3</sup> Hanauer & Bauerle (2012) Facilitating Innovation in Science Education through Assessment Reform, *Liberal Education*, Vol. 98, No.3. Available at: [http://www.aacu.org/liberaleducation/le-su12/hanauer\\_bauerle.cfm](http://www.aacu.org/liberaleducation/le-su12/hanauer_bauerle.cfm)

<sup>4</sup> 2014 Talent Integration: California Workforce Trends in the Life Science Industry. Available at:

<http://califesciencesinstitute.org/careers/workforce-trends/>

### **Eligibility Criteria:**

The proposed project must be biotechnology-related. CSUPERB defines biotechnology as a ***fusion of biology and technology***. BIO (<https://www.bio.org/what-biotechnology>) lists biotechnology examples, applications and sectors; CSUPERB explicitly adds to these lists health IT and medical device research and development. CSUPERB welcomes and encourages applications from CSU faculty in all disciplines related to the current practice of biotechnology, including but not limited to life sciences, physical sciences, clinical sciences, math, computer science, agricultural science, engineering, and/or business.

### ***Investigators & Key Collaborators:***

The Curriculum Development grant program is open to tenured/tenure-track (T/TT) CSU faculty. Other CSU staff or instructors may be listed as co-Principal Investigators (PIs) or key collaborators. CSUPERB will consider only one proposal per PI or co-PI at a time to the Curriculum Development grant program. Investigators applying to this grant program are also welcome to apply to other CSUPERB grant and award programs.

### ***Budget:***

CSUPERB will accept Curriculum Development grant proposals with budgets **up to \$15,000**. Duration of the award will be 18 months from the project start date (approximately June 1, 2018). Exact project start dates are contingent upon award conditions, including IRB, IBC or IACUC approvals on campus.

CSUPERB grants are issued as a result of an internal competition within the CSU and are not subject to Facilities and Administrative (F&A), or indirect, costs. F&A costs are not allowed as a grant-funded expense in proposals submitted in response to RFPs from programs, like CSUPERB, that receive the majority of their support from legislatively appropriated funds, CSU lottery funds or student fees (including State University fees). The F&A foregone at the campus/auxiliary's federally negotiated off-campus rate may be shown as cost match on the proposal. This amount may be used by the auxiliary or enterprise fund as an offset to the university's cost allocation plan, in accordance with EO 753/1000.

### **Budget Restrictions:**

- Faculty salary budgets up to \$5000 per individual are allowed, including fringe, for academic year release time, academic year additional employment, or summer salary. Proposals should indicate how much time each faculty/key personnel will spend on the project and when s/he will be working on the project.
- Student salaries proposed and paid should comply with amounts determined by campus human resources departments. CSUPERB will not approve any salary or rate in excess of campus limitations. Applicants must ensure funds paid to students are not in conflict with these limitations or any others set by graduate or undergraduate programs with which the student may be involved. CSUPERB funds cannot be used to supplement pay for effort if the student is already receiving payroll from another source. Employment of foreign nationals is limited to individuals who meet the conditions set by applicant's campus human resources department policies regarding eligibility to receive compensation in the United States. Proposals should identify students by name when possible, the student's status (undergraduate or graduate student), the hourly salary rate, the number of hours each student will dedicate to the project, and whether they will be working during the summer and/or academic year.
- Travel to professional meetings is not allowed with CSUPERB Seed Grant funds. Apply to CSUPERB's Travel Grants Program to cover those costs

### ***Proposal Submission:***

Proposals, including signed cover sheet, must be submitted electronically on the 2018 Curriculum Development Grant proposal template at the program's submission web site ([www.calstate.edu/csuperb](http://www.calstate.edu/csuperb)) by Monday, February 5, 2018, before 5:00 p.m. pacific time.

Proposals must adhere to style and length guidelines stated in the proposal template. Failure to follow these guidelines may result in proposal rejection during administrative review. Both the 2018 Proposal Template and the Curriculum Development Grant submission link can be found on the CSUPERB website.

Proposals that are complete and meet eligibility requirements will be evaluated for merit by a review panel comprised of CSU faculty with expertise reflecting the applications received. The proposal review meeting will be held in April 2018. The CSUPERB program office will make final funding decisions. Funding decisions are based on recommendations made by the review panel, available funds and CSUPERB strategic priorities. As part of the proposal review process, all PIs will receive written reviews. CSUPERB will not make awards to faculty members who have outstanding, past-due final reports for grants made under this or other CSUPERB grant programs.

**Post-Award Reporting Requirements:**

Successful PIs are required to submit final report to the CSUPERB within 90 days of the project end date. Detailed instructions and the link to the CSUPERB Seed Grant Reporting System are available (<https://www2.calstate.edu/impact-of-the-csu/research/csuperb/Pages/grants-administration.aspx>) in the “Final Grant Reporting” section of the CSUPERB website. Final reports document the need for and help justify continuation of the program. CSUPERB may also contact PIs and co-PIs for longer-term impact reporting.

Successful PIs are strongly encouraged to present the results of their CSUPERB-funded project at the January 2019 or 2020 Annual CSU Biotechnology Symposium.

**Contacts:**

**Submission questions:**

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**Program and RFP questions:**

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