



University of Pennsylvania
Alabama State University
Boston University
Columbia University
Pennsylvania State University
University of California, Los Angeles
University of California, Merced
University of Colorado, Boulder
Washington University in St. Louis
The Franklin Institute

Guidelines for CEMB Seed Grant Applications

The NSF Science and Technology Center for Engineering MechanoBiology

The Center for Engineering MechanoBiology (CEMB) is a multi-institutional Science and Technology Center funded by the National Science Foundation to advance the study of mechanical forces in molecules, cells, and tissues in plants and animals. See cemb.upenn.edu for details of ongoing work in the Center.

The CEMB seeks proposals for **Seed Grants** on any topic related to mechanobiology. Any non-CEMB faculty at one of the CEMB member institutions is eligible to apply. We especially seek proposals from faculty at the ranks of assistant or associate professor. The CEMB is committed to fostering diversity amongst its trainees and faculty at all levels. Recipients of Seed Grants become faculty scholars in CEMB and are expected to become active participants in Center activities. Proposals must address the CEMB mission and identify at least one relevant Integrated Research Thrust (IRT), as listed on the Center website at [RESEARCH](#).

Awards are based on technical merit, potential, track record of the PI, the expected project outcomes, and the overall potential to expand the current CEMB research portfolio and to nucleate collaborations with current CEMB faculty. Each Seed Grant project team is required to submit a final progress report after one year of funding as part of the faculty evaluation process. Instructions for the progress report will be distributed later.

Deadline: Accepted on a *rolling basis*.

Required Documents (begin each on a separate page)

1. **Abstract Page:** The abstract page should be no longer than 250 words.
2. **Research Proposal:** The research proposal should include background information relative to the project. Page limit: two (2) pages, single-spaced with one-inch margins. Use Arial 11 font, or 11-point font in LaTeX. In one paragraph, indicate the importance of this funding to the feasibility of your research proposal. Please indicate if other funds are available to you for the proposed research.
3. **References: Required and** will not count toward the page limit.
4. **Budget:** Provide a clear budget outline using the budget guidelines below

5. **Budget Justification:** Provide a short justification for personnel, supplies, equipment, and other expenses. Additionally, justify resources to be spent on services outside CEMB institutions.
6. **Biosketch:** Submit an NSF-style biosketch *for the PI only*.
7. Copies of **IRB and IACUC approval letters**, if appropriate, will be required if an award is made. Funding will be delayed until these approval documents are received.
8. **NO OTHER SUPPORTING DOCUMENTATION WILL BE CONSIDERED.**

NOTE: All documents must be assembled and submitted as a single PDF.

Budget Guidelines

- a) The award level is \$50,000 for one year, plus overhead. In special circumstances, awards of up to \$75,000-100,000, will be considered.
- b) List the name, title/role, percent effort, salary, and benefits in the budget for each grant participant.
- c) Supplies should be summarized by type in the budget and justification.
- d) Equipment and service contracts should be detailed in the budget and justification.
 - a) Equipment is defined as an item costing more than \$5,000 with a useful life greater than one year.

Other details

- All publications related to this funding must include the acknowledgment, *“This work was funded in part by the National Science Foundation’s Science and Technology Center for Engineering MechanoBiology, grant CMMI: 15-48571.”*
- A brief progress report will be required at the end of this funding that describes outcomes of the supporting projects and the relevance of these to the CEMB mission.
- Invitations for full CEMB membership may be extended to the PI based on scientific progress on the seed grant, the extent of PI interactions within the CEMB during the year of funding, and willingness of the PI to participate in the diversity, education, knowledge transfer, and research missions of CEMB.

Document Submission

Submit a complete application as a single PDF document to Annie Jeong, annjeong@seas.upenn.edu.

Contact for queries:

Vivek Shenoy, University of Pennsylvania, vshenoy@seas.upenn.edu



The Center for Engineering MechanoBiology is a Science and Technology Center (STC) funded by the National Science Foundation under award # CMMI: 15-48571.