



CEMB

Center for Engineering MechanoBiology

MASTER'S RESEARCH FELLOWSHIP

The Center for Engineering MechanoBiology (CEMB) continues its fellowship program for STEM Master's students enrolled at minority-serving institutions (MSIs) or emerging MSIs who have a strong interest in conducting research and pursuing a PhD upon graduation. The goal of this fellowship program is to increase the number of students from minority-serving institutions pursuing graduate degrees in STEM-related fields. Additionally, we hope to build stronger relationships with MSI institutions and faculty through collaborative research projects.

Accepted fellows will conduct a collaborative thesis project with faculty from their home institution and the CEMB. In the summer after their first year, fellows will conduct research in the CEMB collaborator's lab, and then continue their work during the second year of their masters program at their home institution. The program will also offer mentoring and networking opportunities to prepare fellows for research, grad school applications, and the PhD path.

Areas of Research

The Center for Engineering MechanoBiology (CEMB) is a multi-institution Science and Technology Center funded by the National Science Foundation (NSF) to advance the study of mechanical forces in molecules, cells, and tissues in plants and animals. With over **30 faculty** across **eight** institutions, research areas include but are not limited to:

- Plant and animal mechanics
- Organ-on-a-chip technology
- Biomaterials
- Matrix biology
- Biophysics
- Mechanobiology of biomolecules
- Mechanobiology of the nucleus
- Tissue engineering

Fellowship Support

For the duration of the 1-year fellowship program, awardees will be provided with:

- A stipend of approximately **\$31,600/year** beginning the summer after your first year
- Up to **\$5000** for research supplies to conduct research at your home institution
- Up to **\$4000** for travel and housing to conduct summer research at a CEMB lab
- Up to **\$1000** for travel and housing to present your research at a national conference

*Minority-serving institutions and emerging minority serving institutions are defined as having underrepresented minority students making up at least 15% of the student body. These include, but are not limited to, Historically Black Colleges and Universities, Hispanic-Serving Institutions, and Tribal Colleges and Universities.

Eligibility Criteria

Students that meet the following criteria are encouraged to apply:

- **Be currently enrolled** or **intend to enroll** starting Spring 2024, Fall 2024, Spring 2025, or Fall 2025 in a full-time research-based master's degree program at a minority-serving institution or emerging MSI
- Have a GPA of 3.2 or higher at current institution
- Be a U.S. citizen or permanent resident
- Have a strong desire to enroll in a PhD program after their Master's degree.

How to Apply

Applications will be accepted on a rolling basis. To start in Summer 2025, applications must be received by March 30, 2025. Interested students or faculty wishing to collaborate and nominate or co-advise a student with CEMB faculty must email: **Ariel Parker (pariel@seas.upenn.edu)**, who can help identify appropriate collaborators within CEMB and provide application instructions.

After contacting the CEMB, applicants will be asked to provide the following information: Resumé/CV; Unofficial Transcript(s) from your undergraduate and graduate institutions; Research interest statement discussing research goals for your masters thesis, career goals, and faculty that you would like to collaborate with; Letter of support from current advisor indicating how a collaboration with CEMB faculty would be beneficial and committing to a collaborative project with CEMB faculty; Two letters of recommendation from faculty or past supervisors.

Learn more about the CEMB! Visit cemb.upenn.edu

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