

MIT Chemical Engineering Postdoc Grant Call for Proposals

Overview

A postdoctoral fellowship represents a critical junction in the path from a trainee to a principal investigator orchestrating their own research program. During this step towards increased research independence, many ChemE postdoctoral fellows struggle to find opportunities to hone their grant-writing skills, a key contributor to their future success as faculty. **In this pilot program administered by the Chemical Engineering Communication Lab, we aim to address this gap through a postdoctoral research grant contest that pairs training in grant writing with the potential to win a mini research grant.**

Our objectives are to first, **provide all participants with a deep and authentic learning experience** where they will learn how to craft a tailored and well-argued proposal **through a compulsory workshop and individual coaching**, and second, to **award two of the best applicants with a mini research grant** to develop their independent research interests. These outstanding applicants will have developed an **innovative plan to explore new research directions** including a compelling case for the **intellectual contribution of their proposal to their future mission as independent investigators**. Grant awardees will secure \$10,000 in funds to explore their proposed research thread part-time, in addition to their primary research within the upcoming academic year at MIT. During the tenure of the award, all awardees are expected to be exposed to new theories and methods which represent their own intellectual interest and contribution. The proposed work should not be a direct extension or the next step of their current or former projects.

The goal of this program is to provide robust grant-writing training for all applicants to better prepare them for the academic market, while providing awardees a kickstart for launching their unique research vision. Therefore, **we invite all postdoctoral members of the MIT ChemE community** to participate in the training workshop held by the Communications Lab and then **submit an application for the award contest by Thursday, July 25 by 10pm EDT** (for details on the award competition, please refer to the following sections).

Format of the proposal

The research proposal should be about 2-3 pages in length and include at least one overview figure. More figures are allowed but not required. The proposal should include the sections listed below (word limits in parenthesis are a guideline rather than a hard rule).

1. Research title
2. Lay abstract of proposed research plan (150 words)
3. Intellectual contribution to the proposal to your future mission as independent investigator (150 words)
4. Abstract of research plan including specific aims (250 words)
5. Research plan (1500 words)
 - 5.1. Subject
 - 5.2. Significance
 - 5.3. Experimental design and Methodology

- 5.4. Budget
- 5.5. Timeline
- 5.6. References

Eligibility Criteria

Eligible to apply is every postdoc with an MIT ChemE affiliation through an MIT ChemE faculty advisor.

At the time of submission, the applicant must have started their appointment at MIT (Postdoctoral fellow or associate) and is not allowed to have accepted a new position that will start within the following academic year (2019-2020). Applicants must propose work to be done at MIT in the lab of their ChemE faculty advisor. At the time of submission, faculty endorsement of the application is not required, however, the award can only be accepted with written consent of the faculty advisor.

The award can only be given to a candidate once during their postdoctoral training, however, repeat application in the case of unsuccessful application, is strongly encouraged. An applicant can only submit one application per competition year. There is no restriction on number of applicants per faculty advisor/lab.

Applicants are required to participate in the kick-off workshop held by the ChemE Communications Lab on Thursday, June 27 at 2:30-4pm or complete an online make-up session including accompanying worksheets. In the weeks following the workshop, the **applicants are required to make at least one coaching appointment with a ChemE Communications Lab fellow to work on the proposal** (coaching via skype is permitted). Failure to meet these requirements, renders the applicant ineligible to receive the award.

If you have questions about eligibility, please contact the ChemE Communication Lab manager, Caitlin Stier at cstier@mit.edu.

Application Process

There is one competition per year. **The submission deadline for the current call is 07/25/2019, 10 pm (Eastern Daylight Time).**

Applicants are required to participate in the kick-off workshop held by the ChemE Communications Lab and make at least one coaching appointment with a ChemE Communications Lab fellow to work on the proposal (see previous section). Failure to meet these requirements, renders the applicant ineligible to receive the award.

The written application has to be submitted before the deadline as a single pdf file per email to cstier@mit.edu. No other documents are required at this point. An endorsement letter by the faculty advisor will be requested upon award acceptance.

Shortlisted applicants will be invited to give a short presentation (chalk talk-style) to the selection committee, who will then make a final decision.

Important dates:

- Kick-off workshop – Thursday, June 27 at 2:30-4pm in 66-110
- Proposal preparation coaching from Friday, June 28 through Thursday, July 25

- Submission deadline – Thursday, July 25, 2019 at 10pm EDT
- Evaluation – August 2019
- Chalk talks – Monday, August 19 through Friday, August 30
- Final decision – Friday, September 6

Review Process

There is a two-step review process. In the first step, the selection committee will assess the eligibility of the candidates and select a number of proposals to proceed to the second evaluation step, based on the quality of the written proposal. In the second step, shortlisted candidates will give a short presentation about their proposed work to the selection committee. Based on the quality of the written proposal and the oral presentation, the selection committee will select the best candidates for the award. See below for selection criteria).

Composition of the selection committee

The selection committee will be composed of faculty members, members of the postdoc community and Communication Lab fellows. To ensure unbiased assessment of the proposals, the respective Communication Lab fellows will be excluded from reviewing proposals of applicants that they have coached during the workshop and proposal preparation phase.

Criteria for selection

The selection committee will apply a rubric to assess the quality of the written proposals and oral presentations. Key criteria will be the

- Excellence of the written (and oral) proposal from a communication standpoint.
- Excellence of the applicant: scientific leadership potential with an emphasis on their future mission as independent investigators and their proposed intellectual contribution.
- Rigor and innovation of the proposed research: long-term strategic value for the applicant and/or novelty of the proposed research direction.

Award Conditions

The award can be used within one calendar. An extension is not possible. The funds will be administered through in an independent MIT cost object and cannot be used to supplement the faculty advisor's lab or research conducted for the faculty advisor. The funds cannot be used to supplement or replace the awardee's salary, pay for overhead costs or benefits such as health insurance for postdoctoral fellows. The funds can be used for purchases related to the proposed project (chemicals, equipment, etc.), service contracts related to the proposed project (synthesis, analysis, -omics, etc.), travel to collaborators, travel to and use of off-campus research infrastructure. Travel to conferences is only covered under specific circumstances and needs to be discussed with the Communication Lab manager ahead of time. All questions concerning these award conditions can be directed to the ChemE Communication Lab manager, Caitlin Stier at cstier@mit.edu.

Publication and Intellectual Property Rights

The results of research funded by this award must be reported to the Communications Lab at the end of the funding period. We furthermore expect that any results presented in conferences, published in

internationally recognized scientific journals or on pre-print servers acknowledge the support by the award (e.g. “The work of Dr. “awardee” was supported by a postdoctoral research grant from the MIT Department of Chemical Engineering).

Research conducted in this program is subject to MIT’s Intellectual Property Agreement that you signed when starting your position.

Confidentiality and Protection of Personal Data

All personal data of the applicants, the content of the submitted proposals and the final award reports will be treated confidentially. The selection committee and all members of the Communications Lab will not share the identity of the applicants or the content of the proposals or final reports with anyone inside or outside the MIT ChemE community without the applicant’s consent. The Communications Lab reserves the right to ask the applicants for usage of their personal information and parts of their proposals or final reports at a later time for internal training purposes or reporting to the head of department.