

MIT Mentoring Plan Outline (for faculty advisors/mentors)

Mentoring plan proposals should incorporate the most effective mechanisms you have devised for your postdocs, and could integrate approaches that other faculty members have found to be successful. A specific plan could incorporate and expand on some or all of the topics below. This tool mirrors the topics on the MIT Postdoctoral Training Checklist.

Communication

- The initial orientation meeting between the faculty member and the postdoc
- Frequency and format of regular communications between the faculty member and postdoc
- The annual development review for postdoctoral researchers
- Continued involvement after leaving MIT - does the faculty member continue to mentor and help advance the careers of former postdocs? Comment on the employment record of former postdocs.

Research Process

- Meetings (group, sub-group, one-on-one) that are held to discuss research progress. (Comment on format, frequency, duration.)
- Mention key topics that are included in these meetings, such as how to ask a clear, valuable scientific question, approach it experimentally and interpret data; relevant methodology; reasonable timelines; record keeping; research integrity; authorship order; and publishing practice.

Supervisory and Mentoring Skills

- Opportunities for postdocs to develop supervisory skills while doing the proposed research. These could include supervising and mentoring UROP students, assisting in the guidance of graduate students, and supervising technical staff on the specific project or in more general tasks associated with the research group.

Scientific Writing

- Expectations regarding writing research papers or review articles, and responsibility of the postdoc.
- Guidance and feedback that are given during the paper writing process, including regarding effective writing styles, how to present data, and how to choose a journal.
- Expectations regarding participation in writing research grant proposals. Level of responsibility of the postdoctoral researcher, and guidance regarding how to formulate a grant proposal.

Presentation skills

- Expectations to attend local, domestic and international meetings and present their work. Indicate which meetings will be most relevant for this postdoc.
- What opportunities are postdoctoral researchers given to practice communication, and what feedback for improvement is given?

- Are there any classroom teaching opportunities, and if so, what?

Critical assessment skills

- What opportunities are there for commenting on other research projects in the group; and for participating in journal article and grant reviews?
- What guidance is given on how to critique work effectively, in both oral and written formats?

Networking

- What steps will the faculty member take to help the postdoctoral researcher set up networking connections that will be useful during the course of the project and beyond? These would include finding a second mentor, and meeting leaders and peers in the field.

Career guidance

- Mention any career guidance the faculty member provides. This would include discussion during the annual review of realistic career options.
- Is the postdoc encouraged to access available MIT resources that would inform on career possibilities, as well as practical guidance on how to move to the next career step? These include workshops during IAP and throughout the year on various careers, grant and proposal writing and opportunities, how to perform in an interview, and research group management.