Mentor Roles for Postdoctoral Fellows

UTHealth-CPRIT Cancer Prevention Research Innovation Training Program

Primary Mentor

The role of a primary mentor does not differ significantly from mentoring best practice. As articulated by the AAMC,

Individuals should be trained to independently formulate meaningful hypotheses, design and conduct interpretable experiments, adhere to good laboratory practices, analyze results critically, understand the broad significance of their research findings, and uphold the highest ethical standards in research. The development of additional skills—including oral and written communication, grant writing, and laboratory management—are considered integral to this training.

The AAMC and this training program agree on the importance of effective mentoring:

Effective mentoring is critical for postdoctoral training and requires that the primary mentor dedicate substantial time to ensure personal and professional development. A good mentor builds a relationship with the trainee that is characterized by mutual respect and understanding. Attributes of a good mentor include being approachable, available, and willing to share his/her knowledge; listening effectively; providing encouragement and constructive criticism; and offering expertise and guidance.

This program asks the Primary Mentor to

- Attend an orientation that explains the Program goals; tools of innovative thinking and the evidence for them; and expectations of trainees, mentors, and Program directors.
- Ensure that mutually agreed upon expectations and goals are in place at the outset of the training period for each trainee through an individual career development plan, which should be substantially completed within 90 days of the appointment date, with updates semi-annually with the progress report. Expectations include
  - Complete an original project that contributes to innovation in cancer prevention;
  - Complete PH 5020, Innovative Thinking in the first 3 months of the initial appointment and assist in teaching the course annually, thereafter;
  - Complete a research ethics course;
  - Enroll in the Integrative Seminar (PH1498 Pre/Post-Doctoral Seminar) all the fall, spring, and summer terms during all the years the trainee is supported by the fellowship;
  - Prepare and submit at least 1 first-author and 1 co-author manuscript per year;
  - Make at least 1 poster/paper presentation at a national meeting during the fellowship;
  - Keep up to date all training and certification required by UTHealth and UT MD Anderson (if applicable), and submit certificates to CPRITFellowships@uth.tmc.edu;
  - Acknowledge CPRIT funding on papers, other publications, and presentations made while or owing to the support of the training program; (NB: This can read “Trainee was partially supported by Cancer Prevention Research Institute of Texas Training Grant #RP140103.”)
- Support the trainee’s research and supplementary travel.
- Meet with the trainee at least weekly and formally review progress at least quarterly.
Submit written progress notes to accompany the trainee’s semi-annual progress report.

**Traditional Co-Mentors**

Many postdoctoral training programs use Co-Mentors. They are typically selected because they are familiar with the area of the trainee’s research and contribute from this perspective. The traditional training program aims for its postdocs to make an independent contribution to the field, and it thus makes sense to have experts in the field, including those for Program supported trainees.

Some programs require two Co-Mentors who advise the trainee to foster inter-disciplinary training as desired by the particular program. The intent is often to help the trainee use a new research approach(es), technique, model system, type of analysis, etc. to address a problem. Even in such cases there is typically some conceptual similarity between the Co-Mentors.

**Program Co-Mentor (Mentor Provocateur)**

In contrast, CPRIT Co-Mentors are not intended to be experts in a trainee’s field of research nor to direct the trainee’s research in the same sense as the “primary” mentor. Rather they should be

- Well-rounded investigators who: (1) are critical, thinkers, (2) have good listening and communication skills, and (3) a track record of innovation in their research and teaching.
- Investigators with a perspective substantially and intentionally different than the primary mentor, and ideally from a discipline or background that has not frequently been coupled with the expertise of the primary advisor in interdisciplinary training programs.
- Provocateurs who can challenge assumptions (conscious or otherwise) the trainee may make in defining or approaching the doctoral research, even if the assumptions are widely held in the discipline of the primary mentor, and stimulate the trainee to consider alternate approaches, especially those that have not previously used in similar research.

In some instances the Program Co-Mentor’s suggestions will likely turn out to be naïve, “off the wall”, or not very helpful other than to provoke the trainee to consider conceptualizing a problem differently and/or reinforce any assumptions he/she has made. The intent is for the Program Co-Mentor to stimulate the trainee to think in novel, creative ways about defining or approaching a research question(s) during his/her training.

Also important is what these mentors are not to be. They are not meant to be co-equal with the Primary Mentor in terms of advising the trainee about the course of the research or to have ‘veto’ authority over aspects of the research. Again, their goal is to provoke and stimulate the trainee to different ways of thinking but not to unduly or unilaterally direct the trainee’s research.

The goals of this training grant, i.e., teaching creativity and stimulating novel, innovative research and the role of Program Co-Mentor must also be considered in the context of a trainee just beginning a research career, i.e., neither the Primary Mentor, Program Co-Mentor, or training grant leadership should have unreasonable expectations about trainees’ abilities to rapidly become novel, innovative thinkers but should anticipate a more gradual transition.

**Mentor Pro Tem**

The Mentor Pro Tem is assigned to each trainee at the time of appointment. The job of this mentor is to facilitate the identification of a Program Co-Mentor. This individual will typically be a member of the training grant Executive Committee or someone with a good understanding of the aims of the Program and the role of the Program Co-Mentor. The process typically involves several discussions with the trainee, trainee reconnaissance (e.g., finding and reading c.v.’s and key papers of several candidates), and a meeting with the fellow, the Primary
Mentor, and the traditional Co-Mentors. The Program Co-Mentor should be selected by the 4th month after a trainee is appointed.