The Academy at Harvard Medical School
The Academy Office of Education Research

Request for Applications

The Academy Fellowship in Medical Education Research

Fellowship Period:

2-year Fellowships for Faculty, Clinical Fellows and Surgery Residents: September 1, 2018 - June 30, 2020

1-year Fellowships for Faculty: September 1, 2018 - June 30, 2019

APPLICATIONS DUE: 5 PM Monday, March 5, 2018

The Academy at Harvard Medical School is pleased to announce a Request for Applications (RFA) for one- or two-year fellowships for faculty and two-year fellowships for fellows and residents in medical education research for the Fellowship Period beginning September 1, 2018. The Academy Fellowship in Medical Education Research provides faculty, clinical fellows, and residents who are interested in careers as educators and opportunities to develop the expertise and skills needed to advance scholarship in medical education and medical education research. We will be accepting up to 3 fellows in the coming academic year. Faculty applicants with projects related to undergraduate medical education are encouraged to apply.

For faculty: Fellowship positions are available for HMS faculty at any academic rank either one or two years. Faculty are required to commit to 20% time per year.

For clinical fellows and surgery residents who are beginning the research portion of their fellowship/residency: Fellowship positions are available for clinical fellows and residents with an expected commitment of two years at 60-80% time commitment.

Tuition for the fellowship is provided by the HMS Academy, but individuals must provide funding to support their time devoted to the program.

Learners participating in the Fellowship will:

- Develop analytical and research skills in medical education;
- Acquire working knowledge of key theories and methods to carry out rigorous research in medical education;
- Complete one major group project and one individual project related to medical education.

Fellowship Overview

Amy Sullivan, EdD, Associate Director of Medical Education Research in the Office of Educational Quality Improvement (OEQI), is the Director of the Fellowship. The fellowship leaders and guest faculty conduct fellowship seminars weekly on Thursdays from 2:30-4:30 pm at HMS, beginning after Labor Day (with one or two meetings scheduled during July-August 2018 and 2019). These seminars are required sessions during which the group discusses a variety of medical education research topics and assigned readings. Sessions address a range of topics including issues in survey development, qualitative and quantitative data collection and analysis, conducting interviews and focus groups, assessing clinical competencies, and evaluating educational interventions. Fellows will review a range of cognitive and behavioral learning theories to apply to their research projects. Fellows will also participate in selected research projects being
conducted at the Academy, and will apply what they are learning to the analysis of focus group data and survey data; when appropriate, fellows will collaborate on the development of manuscripts for publication.

Fellowship curriculum is on a two-year cycle, with an emphasis on quantitative and mixed methods research in one year (current 2017-2018 session, to be repeated in 2019-2020) and emphasis on qualitative in the following year (Fall 2018-Spring 2019). In the coming fellowship year, we will cover the following areas:

**Fellowship 2018-2019: Quantitative Methods Topics**

**Formulating research questions and deciding whether to use qualitative, quantitative, or mixed methods approaches**

**General issues in qualitative research:**

- Inductive versus deductive approaches to data
- Research questions-exploratory or hypothesis driven
- Assessing validity and reliability in qualitative analysis
- Reflective practice in qualitative analysis

**Conducting focus group research**

- Developing research questions suitable for focus group approaches
- Developing focus group guides (questions)
- Sample design for focus groups: how many, composition of groups
- Skills for conducting focus groups and managing challenging situations
- Human subjects protections in focus group research
- Recruiting participants for focus groups
- Analyzing focus group data using Dedoose©software

**Interview research**

- Determining when to conduct interviews rather than focus groups
- When to conduct single versus multiple interviews
- Sampling decisions for interview research, how to use theoretical sampling
- Developing interview questions
- One on one interview skills
- Handling sensitive topics
- Analyzing interview data

**Observational (field) research:**

- When to consider observational or ethnographic research
- Negotiating research relationships in naturalistic settings
- Analyzing observational data

**Assessing competencies:**

- OSCEs and OSTEs development and testing
- Interrater reliability

Faculty who apply for the two-year program and Clinical Fellows and Surgery Residents who continue on to a second Fellowship year (2018-2019) will learn and practice quantitative research methods, including:

**Fellowship Year 2019-2020 Quantitative Approaches**

**Overview: Fundamentals of research design**
- Overview of research designs (randomized controlled trials, observational, longitudinal [including intervention designs], and quasi-experimental designs)
- Sampling designs
- Formulating research questions
- Conducting literature searches and writing reviews of literature
- Theoretical frameworks to guide medical education research
- Ethics and equity in medical education research

**Survey design and development**

- Developing surveys using Qualtrics
- Designing and testing survey measures
- Assessing knowledge and attitudes (subjective measures)
- Assessing competencies and behaviors (objective measures)
- Approaches to maximize measurement validity and reliability

**Test construction and design**

- Test construction: MCQs

**Survey data analysis**

- Descriptive analysis of survey data using statistical software program JMP
- Basic statistical analyses to assess group differences and change over time
- Introduction to longitudinal analyses of change over time (survival analysis, growth modeling, hierarchical linear modeling)

Fellows from the Academy Research Fellowship will also participate in joint sessions with Fellows from the Academy Medical Education Fellowship, Rabkin (BIDMC) and Mount Auburn Medical Education Fellowships on 4 Fridays during the Fellowship year (dates to be specified prior to the beginning of Fellowship). These sessions include issues in medical education research and study design, as well as poster sessions showcasing Fellows' research projects.

Academy Research fellows must complete a research project. Projects may focus on development and evaluation of an educational intervention, an observational project on faculty development or student/resident/fellow learning, assessment of learners, or education policy research.

**Expectations:**

**Expectations for all fellowship participants are as follows:**

Applicants must have the support of their department chair or division chief to devote this time, free of other responsibilities, to the Fellowship activities. Activities include: required attendance at weekly sessions (Thursdays 2:30-4:30), four all-fellows' Friday sessions (two in the fall, two in spring, 9am-12pm, dates to be announced in Spring 2018), completing readings, and carrying out an individual project that is appropriate as part of their commitment of 20% effort (faculty) or 60-80% effort (clinical fellows or surgical residents).

Candidates must identify a mentor who is an expert in their content area and who is willing to meet with the fellow on a bi-monthly basis throughout the Fellowship period.

Candidates agree to submit an abstract of the Fellowship project for a poster presentation or technology demonstration at HMS Medical Education Day in October 2018 and/or October 2019.

**Specific expectations for HMS Faculty:**

Devote 20% of time to research and Fellowship activities (including the weekly fellowship seminars).

Participation in group projects is optional. Faculty may apply for one or two years of the fellowship.

**Specific expectations for Clinical Fellows or Surgical Residents in their research years:**

Devote 60-80% of time to research and Fellowship activities for two years (including the weekly fellowship seminars).
This time can also include other education research projects not directly related to the fellowship.

**Funding**
Salary support is to be supplied by the Fellow's department. Tuition for the Fellowship is covered by the HMS Academy.

**Selection Process**
An Academy Fellowship selection committee will review all applications and schedule interviews with finalists. Applications are due by **Friday, March 2, 2018**. Interviews will be conducted within three weeks of the deadline, and Fellowship awards will be announced by **March 30, 2018**.

To apply for an Academy Fellowship in Medical Education Research, please submit the following eight (8) items:

- **ONLINE APPLICATION FORM**: Please complete the required online application form. The online application will activate your application. It is a required part of the application process.

- **COVER LETTER**: A cover letter that includes a personal statement outlining your career goals and what you hope to gain through an Academy Fellowship in Medical Education Research;

- **CV**: A copy of your Curriculum Vitae;

- **PROJECT PROPOSAL**: A description [no longer than 2 pages] of a project you would conduct during the fellowship year, including:
  - Goals of the project
  - The problem it addresses and who will benefit
  - Barriers
  - Resources required
  - How the project will be evaluated
  - Research methods you hope to learn to carry out the project

- **SALARY SOURCE STATEMENT**: This plan must be reviewed and approved by your department chair or division chief.

Items 6-7 to be emailed from each recommender as a Word or PDF document to the Academy:
Academy@hms.harvard.edu

- **DEPARTMENT CHAIR RECOMMENDATION**: A letter of recommendation and statement of support from your department chair and/or division chief, including a commitment to free 20% of your time from other responsibilities to pursue your fellowship project and related medical education research and meet with Fellowship leaders twice monthly.

- **PROJECT MENTOR LETTER OF RECOMMENDATION/ LETTER OF SUPPORT**: The Project Mentor should write a letter of recommendation attesting to your commitment to and involvement in medical education. The project mentor should also indicate his/her commitment to overseeing the project and to spending adequate time mentoring the applicant.

Deadline for all materials including recommendations: no later than 5:00 P.M. Monday, March 2, 2018

If you have questions about the Academy Fellowship in Medical Education Research, please contact The Academy at Academy@hms.harvard.edu.