

The Greater Boston MSTAR Scholars Program at Harvard Medical School

Program Overview

The Greater Boston MSTAR Scholars Program at Harvard Medical School is designed to give medical students a two to three-month mentored research experience in the field of aging and an introduction to geriatric medicine. HMS Guidance regarding on-campus research experiences for the summer of 2022 is evolving. At this time, in-person participation in a research experience will be at the discretion of each mentor and their home institution. For MSTAR 2022, the interactive didactic sessions will be held remotely. This format has been used for the past two summers and has been very successful.

Goals for Research Scholars

Students who participate in the program will:

- Work on an aging research project under the supervision of a faculty mentor
- Attend weekly didactic sessions on aging research and geriatric medicine
- Give a formal research presentation to peers and faculty
- Prepare and submit an abstract to the American Geriatrics Society (AGS) Meeting or another national research meeting and many students are able to publish their work in peer-reviewed journals
- Learn about careers in aging
- Create lasting relationships with peers and faculty who share your interests in aging research and geriatric medicine

National Institutes of Aging MSTAR Program Eligibility Guidelines are described on the [AFAR website](#)

Dates/Timeline

Students must participate in a research project for at least 2 months (i.e. 60 total days). **The days must be continuous (national holidays are excluded) and students may not take vacations or be involved in other programs during their research period.** Students should be able to participate in the entire didactic program and MSTAR Scholars Presentation Days (6/7/2022 - 7/21/2022). If your academic schedule does not allow you to be present for the first few meetings of the didactic program, we are happy to discuss the possibility of arranging your summer MSTAR schedule around your academic commitments and finding you alternative didactic opportunities. Exceptions will not be made for non-academic scheduling conflicts.

Our Partner Institutions - UMISS, UMASS, BU, BROWN

The Greater Boston MSTAR Scholars Program at Harvard Medical School accepts applications from students attending University of Mississippi School of Medicine, Boston University School of Medicine, University of Massachusetts Medical School and Brown University School of Medicine to work on MSTAR projects with aging research faculty at their home institutions. All home-institution projects require submission of a one-page project proposal and pre-approval from the MSTAR directors by the application deadline. Students applying to our program from all other institutions work with local Harvard faculty.

Funding

Funding for this program is provided by the NIA and is usually distributed by mid-June, but always **after** the start of the summer program. The stipend last year was about \$2,000 per month.

Application

If you have any questions about the application process, please contact us at BostonMSTAR@bwh.harvard.edu.

Application materials and instructions are available at the [BWH Division of Aging](#) website. Applications may be submitted between **November 22, 2021 and January 14, 2022 5PM EST**. To simplify our matching process this year, we will ask each applicant who wishes to work with a Harvard mentor to review the mentor list and rank their top 3 choices. Students should not contact these mentors directly, and decisions about acceptance and pairing will be announced beginning **February 7th, 2022**.

We are an equal opportunity program, and all qualified applicants will receive consideration for our program without regard to race, color, religion, sex, national origin, disability status, protected veteran status, gender identity, sexual orientation, pregnancy and pregnancy-related conditions or any other characteristic protected by law. Women and minority candidates are particularly encouraged to apply.

Mentorship and Research Projects

Please review our list of recent faculty mentors, research projects, and project types below. Mentors vary from year-to-year based on their availability. The most successful mentorship pairings are often the result of students having strong research interests and identifying faculty in the Harvard research community doing work in that area. Due to the high volume of applications, we have received over the past few cycles and the need to do a completely remote project, we are streamlining our usual student-mentor pairing process as follows:

1. For students applying to work with a Harvard Mentor:

We have provided a list of mentors (see below) and their profiles on Harvard Catalyst. Please look at this list, rank the top 3 mentors that seem aligned with your interests and **write this down on your application** in the section which asks about your research interests. It is very helpful if you can tell us what aspect of the faculty member's work appeals to you (e.g., the research question, the research area, the patient population, or the research method). Given the large number of early program inquiries this year, **please do not** reach out to past MSTAR mentors directly.

2. For students from one of our affiliated institutions:

If you are applying to work with a mentor at your own institution, please write the name of the mentor and your research project on the application. Your application should also be accompanied by a 1-page proposal of your research project. If you cannot find a local mentor, you are welcome to apply to work with a Harvard mentor.

Please follow the active links in the table below to learn more about each recent mentor. At [Harvard Catalyst](#) you can also perform a key word search to find other Harvard researchers who share your interests.

Research Mentors and Projects (Summer 2016 through Summer 2021):

Projects	Project Type	Mentor	Institution
Exploring Student, Resident and Faculty Perspectives on Serious Illness Communication Training in Undergraduate and Graduate Medical Education	Qualitative Study	Dr. Justin Sanders	Dana Farber Cancer Institute
Refinement of ED GOAL for patients with cognitive impairment	Qualitative Study	Dr. Kei Ouchi	Brigham and Women's Hospital
A crosswalk among frailty measures in the National Health and Aging Trends Study	Epidemiologic Study	Dr. Dae Kim	Hebrew Senior Life/ Brigham and Women's Hospital
Goals of Care Documentation in Clinical Notes of Older Adults with Advanced Cancer	Observational Study	Dr. Charlotta Lindvall	Dana Farber Cancer Institute

CRESCENT Implementation- Assessing the Experience of Dementia Care Managers	Qualitative Study	Dr. Christine Ritchie	Massachusetts General Hospital
High intake of dietary flavonoids and odds of frailty onset in middle-age and older adults in the Framingham Offspring Cohort	Epidemiologic Study	Dr. Shivani Sahni	Hebrew Senior Life
Phenomapping to Distinguish Unique Phenotypes of Frailty	Epidemiologic Study	Dr. Jordan Strom	Beth Israel Deaconess Medical Center
Provider Perspectives on Safer Opioid Prescribing Guidelines	Qualitative Study	Dr. Vassiliki Pravodelov	Boston University Medical Center
Higher abdominal adiposity is associated with decreased lean muscle mass and muscle strength in men and women: The Framingham Study	Epidemiologic Study	Dr. Shivani Sahni	Hebrew Senior Life
Preoperative Cognitive Function and Risk of Poor Outcome for Older Adults Undergoing Aortic Valve Replacement	Epidemiologic Study	Dr. Dae Kim	Beth Israel Deaconess Medical Center
Development of Neurovascular Coupling in Adolescents	Physiology Research	Dr. Can Ozan Tan	Cerebrovascular Institute Spaulding Rehab
Developing an Algorithm to Classify Injurious Falls Using ICD-10 Claims Codes	Validation Study	Dr. Sarah Berry	Hebrew Senior Life
Gait Speed and Cognitive Impairment are Predictive of Outcomes in Elderly Males With Implantable Cardio-defibrillators	Epidemiologic Study	Dr. Ariela Orkaby	VA Boston Medical Center/BWH
Social Vulnerability, Frailty, and Preventable Hospitalizations of Older Adults	Epidemiologic Study	Dr. Laura Frain	BWH
The Association between Serious Illness Conversations and Long-term Prognosis of Older Adults who Survive Mechanical Ventilation in the ICU	Epidemiologic Study	Dr. Kei Ouchi	BWH
The impact of frailty in the effectiveness of cardioverter-defibrillators for the prevention of sudden cardiac death (SCD) in older patients	Systematic Review	Dr. Ariela Orkaby	VA Boston Medical Center/BWH
Comparative Efficiency of Four Strategies for Delirium Screening	Screening Study	Dr. Edward Marcantonio	Hebrew Senior Life /BIDMC
Implementation of Supportive Transition of Care Program for Veterans with Serious Illness	Clinical Research	Dr. Jane A. Driver	VA Boston Medical Center

Hypertension, Neurovascular Coupling, and Midlife Cognitive Function	Clinical Research	Dr. Can Ozan Tan	Cerebrovascular Institute Spaulding Rehab
Frailty Index for the Identification of High-Risk Geriatric Patients with Hip Fracture	Clinical Research	Dr. Houman Javedan	BWH
The Link between Early Cerebrovascular Hemodynamics and Functional Outcomes after Aneurysmal Subarachnoid Hemorrhage	Physiology Research	Dr. Can Ozan Tan	Cerebrovascular Institute Spaulding Rehab
Cerebrovascular Aging: Assessing the Influence of Deferoxamine with Projection Pursuit Regression	Physiology Research	Dr. Can Ozan Tan	Cerebrovascular Institute Spaulding Rehab
FRAIL Questionnaire Screening Tool and Short-term Outcomes in Geriatric Fracture Patients	Clinical Research	Dr. Houman Javedan	BWH
The Minimum Data Set Falls Short on Capturing Falls	Validation Study	Dr. Sarah Berry	Hebrew Senior Life/BIDMC
Feasibility of Quality Improvement for Depression Treatment in Medical Home Care: Findings from the Making Real Progress in Emotional Health Project	Pilot Study/Clinical Research	Dr. Eran Metzger	Hebrew Senior Life
DASH Diet and Risk of Abdominal Aortic Aneurysm in the Physicians' Health Study	Epidemiologic Study	Dr. Luc Djousse	BWH
The clinical and economic benefits of C-Trac: Nurse Driven Telephone-Based Transitional Care at VA Boston	Clinical Research	Dr. Jane A. Driver	VA Boston Medical Center/BWH
Assessing Gait Speed in the Clinic - another vital sign	Clinical Research	Dr. Ariela Orkaby	VA Boston Medical Center/BWH
Response to Lipopolysaccharide: The impact of aging on surgical outcomes	Clinical Research	Dr. Deborah Culley	BWH
Diagnosing Delirium Superimposed on Dementia	Epidemiologic Study	Dr. Edward Marcantonio	Hebrew Senior Life /BIDMC
The Impact of Social Vulnerability on Readmission of Hospitalized Older Patients	Epidemiologic Study	Dr. Houman Javedan	BWH
Comparison of Simple Frailty Assessments in Predicting Poor Outcomes after Aortic Valve Replacement	Epidemiologic Study	Dr. Dae Kim	Beth Israel Deaconess Medical Center

Association of Mediterranean Diet and High Intake of Carotenoids with Frailty – Results from the Framingham Offspring Study	Epidemiologic Study	Dr. Shivani Sahni	Hebrew Senior Life
Comprehensive Geriatric Assessment-Based Frailty Index and Outcomes of Thoracic Cancer Surgery	Epidemiologic Study	Dr. Laura Frain	BWH
Nursing Intervention to Facilitate Advanced Care Planning for Older Patients in the Emergency Department	Qualitative Study	Dr. Kei Ouchi	BWH
Association of Nut Consumption and Carotid Atherosclerosis in the NHLBI Family Heart Study	Epidemiologic Study	Dr. Luc Djousse	BWH
Predicting Delirium: Developing an Inflammatory Index Score to Assess Risk of Postoperative Delirium in Older Patients	Epidemiologic Study	Dr. Edward Marcantonio	Hebrew Senior Life /BIDMC
An Advance Care Planning Nursing Home Intervention in Response to COVID-19	Clinical Research	Dr. Sarah Berry	Hebrew Senior Life
Developing and Understanding the Role of a Serious Illness Care Community of Practice through Quality Improvement Surveys	Qualitative Study	Dr. Rachelle Bernacki	DFCI
The Effect of Multimorbidity on Short-term Improvement after Percutaneous Coronary Intervention	Epidemiologic Study	Dr. Jordan Strom	BIDMC
The Role of Age in the Proteomic Effects of Spine Surgery	Epidemiology/ Proteomic Study	Dr. Deborah Culley	BWH