



## 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 2 to 3-month mentored research experience in the field of aging and an introduction to geriatric medicine. Due to the COVID-19 pandemic, we are planning for a completely remote program in 2021. We did this last year and it was 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. 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 present in Boston for the duration of the didactic program and MSTAR Scholars Day (**6/7/2021 - 7/22/2021**). 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 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](mailto:BostonMSTAR@bwh.harvard.edu).

Application materials and instructions are available at the [BWH Division of Aging](#) website. Applications may be submitted between **November 23, 2020 and January 15, 2021**. 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 5<sup>th</sup>, 2021**.

*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 research domains 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, their profile 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 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 sister 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, which must be accompanied with 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 2020):

Projects	Project Type	Mentor	Institution
Higher abdominal adiposity is associated with decreased lean muscle mass and muscle strength in men and women: The Framingham Study	Epidemiologic Study	<a href="#">Dr. Shivani Sahni</a>	Hebrew Senior Life
Preoperative Cognitive Function and Risk of Poor Outcome for Older Adults Undergoing Aortic Valve Replacement	Epidemiologic Study	<a href="#">Dr. Dae Kim</a>	Beth Israel Deaconess Medical Center
Development of Neurovascular Coupling in Adolescents	Physiology Research	<a href="#">Dr. Can Ozan Tan</a>	Cerebrovascular Institute Spaulding



			Rehab
Developing an Algorithm to Classify Injurious Falls Using ICD-10 Claims Codes	Validation Study	<a href="#">Dr. Sarah Berry</a>	Hebrew Senior Life
Gait Speed and Cognitive Impairment are Predictive of Outcomes in Elderly Males With Implantable Cardio-defibrillators	Epidemiologic Study	<a href="#">Dr. Ariela Orkaby</a>	VA Boston Medical Center/BWH
Social Vulnerability, Frailty, and Preventable Hospitalizations of Older Adults	Epidemiologic Study	<a href="#">Dr. Laura Frain</a>	BWH
The Association between Serious Illness Conversations and Long-term Prognosis of Older Adults who Survive Mechanical Ventilation in the ICU	Epidemiologic Study	<a href="#">Dr. Kei Ouchi</a>	BWH
The impact of frailty in the effectiveness of cardioverter-defibrillators for the prevention of sudden cardiac death (SCD) in older patients	Systematic Review	<a href="#">Dr. Ariela Orkaby</a>	VA Boston Medical Center/BWH
Comparative Efficiency of Four Strategies for Delirium Screening	Screening Study	<a href="#">Dr. Edward Marcantonio</a>	Hebrew Senior Life /BIDMC
Implementation of Supportive Transition of Care Program for Veterans with Serious Illness	Clinical Research	<a href="#">Dr. Jane A. Driver</a>	VA Boston Medical Center
Hypertension, Neurovascular Coupling, and Midlife Cognitive Function	Clinical Research	<a href="#">Dr. Can Ozan Tan</a>	Cerebrovascular Institute Spaulding Rehab
Frailty Index for the Identification of High-Risk Geriatric Patients with Hip Fracture	Clinical Research	<a href="#">Dr. Houman Javedan</a>	BWH
The Link between Early Cerebrovascular Hemodynamics and Functional Outcomes after Aneurysmal Subarachnoid Hemorrhage	Physiology Research	<a href="#">Dr. Can Ozan Tan</a>	Cerebrovascular Institute Spaulding Rehab
Cerebrovascular Aging: Assessing the Influence of Deferoxamine with Projection Pursuit Regression	Physiology Research	<a href="#">Dr. Can Ozan Tan</a>	Cerebrovascular Institute Spaulding Rehab



FRAIL Questionnaire Screening Tool and Short-term Outcomes in Geriatric Fracture Patients	Clinical Research	<a href="#">Dr. Houman Javedan</a>	BWH
The Minimum Data Set Falls Short on Capturing Falls	Validation Study	<a href="#">Dr. Sarah Berry</a>	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	<a href="#">Dr. Eran Metzger</a>	Hebrew Senior Life
DASH Diet and Risk of Abdominal Aortic Aneurysm in the Physicians' Health Study	Epidemiologic Study	<a href="#">Dr. Luc Djousse</a>	BWH
The clinical and economic benefits of C-Trac: Nurse Driven Telephone-Based Transitional Care at VA Boston	Clinical Research	<a href="#">Dr. Jane A. Driver</a>	VA Boston Medical Center/BWH
Assessing Gait Speed in the Clinic - another vital sign	Clinical Research	<a href="#">Dr. Ariela Orkaby</a>	VA Boston Medical Center/BWH
Response to Lipopolysaccharide: The impact of aging on surgical outcomes	Clinical Research	<a href="#">Dr. Deborah Culley</a>	BWH
Diagnosing Delirium Superimposed on Dementia	Epidemiologic Study	<a href="#">Dr. Edward Marcantonio</a>	Hebrew Senior Life /BIDMC
The Impact of Social Vulnerability on Readmission of Hospitalized Older Patients	Epidemiologic Study	<a href="#">Dr. Houman Javedan</a>	BWH
Comparison of Simple Frailty Assessments in Predicting Poor Outcomes after Aortic Valve Replacement	Epidemiologic Study	<a href="#">Dr. Dae Kim</a>	Beth Israel Deaconess Medical Center
Association of Mediterranean Diet and High Intake of Carotenoids with Frailty – Results from the Framingham Offspring Study	Epidemiologic Study	<a href="#">Dr. Shivani Sahni</a>	Hebrew Senior Life
Comprehensive Geriatric Assessment-Based Frailty Index and Outcomes of Thoracic Cancer Surgery	Clinical Research	<a href="#">Dr. Laura Frain</a>	BWH



Brigham and Women's Hospital

Harvard Medical School

VA Boston Healthcare System

Nursing Intervention to Facilitate Advanced Care Planning for Older Patients in the Emergency Department	Clinical Research	<a href="#">Dr. Kei Ouchi</a>	BWH
Association of Nut Consumption and Carotid Atherosclerosis in the NHLBI Family Heart Study	Epidemiologic Study	<a href="#">Dr. Luc Djousse</a>	BWH
Predicting Delirium: Developing an Inflammatory Index Score to Assess Risk of Postoperative Delirium in Older Patients	Clinical Research	<a href="#">Dr. Edward Marcantonio</a>	Hebrew Senior Life /BIDMC
An Advance Care Planning Nursing Home Intervention in Response to COVID-19	Clinical Research	<a href="#">Dr. Sarah Berry</a>	Hebrew Senior Life
Developing and Understanding the Role of a Serious Illness Care Community of Practice through Quality Improvement Surveys	Clinical Research	<a href="#">Dr. Rachelle Bernacki</a>	DFCI
The Effect of Multimorbidity on Short-term Improvement after Percutaneous Coronary Intervention	Clinical Research	<a href="#">Dr. Jordan Strom</a>	BIDMC
The Role of Age in the Proteomic Effects of Spine Surgery	Basic Science	<a href="#">Dr. Deborah Culley</a>	BWH