# The Greater Boston MSTAR Program at Harvard Medical School

Program Overview

The Greater Boston Medical Student Training in Aging Research (GBMSTAR) Program at Harvard Medical School is designed to give medical students a two to three-month in-person mentored research experience in the field of aging and an introduction to aging research topics and geriatric medicine.

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 important topics in aging research and geriatric medicine.
* Give a formal research presentation to peers and faculty.
* Learn about a variety of career paths within the fields of aging research and geriatric medicine.
* Create lasting relationships with peers and faculty who share academic and clinical interests. Prepare and submit an abstract to the American Geriatrics Society (AGS) Meeting or another national research meeting. Many scholars have their work accepted for publication in peer-reviewed journals, whether as a co-author or first-author.

National Institutes of Aging MSTAR **Program Eligibility Guidelines** can be found on the [AFAR website](https://www.afar.org/research/funding/mstar/)

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 the MSTAR Scholars Week Presentations (**6/4/2025 - 7/16/2025**). 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 GBMSTAR schedule around your academic commitments and finding you other didactic opportunities. Exceptions will not be made for non-academic scheduling conflicts. Those who start the program later in the summer, will be expected to present their work-in-progress during GBMSTAR Scholars Week.

General Application Process

Application materials and detailed instructions are available at the [BWH Division of Aging](https://www.brighamandwomens.org/medicine/division-of-aging/for-medical-professionals) website.

Complete applications (**General Application Form** and **Home Institution Faculty Sponsor Form)** may be submitted between **November 5, 2024, and January 20, 2025, at 5:00 p.m., ET. The application should be sent as a single PDF file and will be reviewed upon receipt. Each applicant will receive a decision no later than January 31, 2025.**

After acceptances are made, the process of matching students with research mentors will begin. There is more information about mentors and research projects below.

Partner Institution (UMISS, UMass, BU, BROWN) Application Process

The Greater Boston MSTAR Scholars Program at Harvard Medical School has partnerships with University of Mississippi School of Medicine, Boston University School of Medicine, University of Massachusetts Medical School, and Brown University School of Medicine. **Students from these institutions** are permitted to work on MSTAR projects with aging research faculty at their institutions. These applicants should meet with their potential faculty mentor as soon as possible to start developing a project proposal plan. Notably, the **Partner Institution** **Project Proposal Form** will need to be submitted for review and approved by the GBMSTAR program **well before** the application deadline. Completed application (**Partner Institution Application Form** and **Partner Institution Faculty Sponsor Form**) may be submitted between **November 5, 2024, and January 20, 2025, at 5:00 p.m., ET. The application should be sent as a single PDF file and will be reviewed upon receipt. Each applicant will receive a decision no later than January 31, 2025.**

All applicants can send any questions about the application process to Leslie Power, BostonMSTAR@bwh.harvard.edu.

***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.***

Funding

Funding for this program is provided by the NIA/NIH. As the payments must be processed through Mass General Brigham, they are usually distributed **after** an individual officially starts the program in the summer and all required onboarding protocols have been completed. The stipend last year was approximately $2,300 per month. Additional funds for travel and housing are not provided.

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, so we do not ask you to pick the mentor but the research area. The most successful mentorship pairings are often the result of students having strong related research interests. Once a scholar is accepted to the program, GBMSTAR will reach out to initiate the mentor pairing process.

1. For students applying to the program to work with a GBMSTAR Mentor:

Below is a list of some potential mentors and links to their profiles on Harvard Catalyst or an equivalent website. Applicants should review the list, identify the top 3 research projects that aligns with their research interests, and convey **this information in their application** in Section 3: Research Interests/Mentorship. The applicant should also use that space to describe in detail what aspect of project is most interesting to them (e.g., the research question, the research area, the patient population, or the research method). Given the large number of inquiries we receive each year, **please do not reach out to past GBMSTAR mentors directly**.
2. For students applying to the program from one of our **partner institutions** (UMISS, UMass, BU, BROWN):

If the applicant is from one of GBMSTAR’s partner institutions and is applying to work with a research mentor at that institution, **the applicant should write the name of their mentor and research project** inSection 3: Research Interests/Mentorship. As noted previously, applicants from Partner Institutions will need to submit a **Partner Institution Research Project Proposal** form for approval prior to the application deadline.

Please follow the active links in the table below to learn more about recent and potential mentors. At

# [Harvard Catalyst](https://connects.catalyst.harvard.edu/profiles/search/people) you can perform a keyword search by name or topic.

Selected MSTAR Research Mentors and Projects (Summer 2016 through Summer 2024) and Potential Mentors, with some mentors listed more than once. Please note that mentor availability and projects vary from summer to summer. \*Indicates pre-requisites for working with a mentor. \*\*Indicates a mentor that is only available to work with if you are a student studying at that partner institution.

| **Projects** | **Project Type** | **Mentor** | **Institution** |
| --- | --- | --- | --- |
| Sex differences on the Boston Remote Assessment for Neurocognitive Health (BRANCH) among older adults and those with preclinical Alzheimer's disease. Characterizing the evolution of Subjective Cognitive Decline in preclinical Alzheimer's disease | Epidemiologic Study | [Dr. Rebecca Amariglio](https://connects.catalyst.harvard.edu/Profiles/display/Person/29686) | BWH |
| Developing and Understanding the Role of a Serious Illness Care Community of Practice through Quality Improvement Surveys | Qualitative Study | [Dr. Rachelle Bernacki](https://connects.catalyst.harvard.edu/Profiles/display/Person/18742) | DFCI |
| An Advance Care Planning Nursing Home Intervention in Response to COVID-19 | Clinical Research | [Dr. Sarah Berry](https://connects.catalyst.harvard.edu/Profiles/display/Person/83697) | HSL |
| A National Faculty Survey of Geriatrics Education in Medical School.   | Survey | [Dr. Catherine Dawson](https://www.bumc.bu.edu/medicine/profile/catherine-dawson/) | VA Bedford Medical Center/BUMC\*\* |
| Association of Nut Consumption and Carotid Atherosclerosis in the NHLBI Family Heart Study | Epidemiologic Study | [Dr. Luc Djousse](https://connects.catalyst.harvard.edu/Profiles/display/Person/21551) | BWH |
| The clinical and economic benefits of C-Trac: Nurse Driven Telephone-Based Transitional Care at VA Boston | Clinical Research | [Dr. Jane A. Driver](https://connects.catalyst.harvard.edu/Profiles/display/Person/64511) | VABHS/BWH |
| Integration of Geriatric Measures Alongside Disease-Based Measures to Advance Precision Oncology | Epidemiologic Study | [Dr. Clark DuMontier](https://connects.catalyst.harvard.edu/Profiles/display/Person/161791) | HSL/BIDMC |
| The Impact of Social Vulnerability on Readmission of Hospitalized Older Patients | Epidemiologic Study | [Dr. Houman Javedan](https://connects.catalyst.harvard.edu/Profiles/display/Person/32748) | BWH |
| Comparison of Simple Frailty Assessments in Predicting Poor Outcomes after Aortic Valve Replacement | Epidemiologic Study | [Dr. Dae Kim](https://connects.catalyst.harvard.edu/Profiles/display/Person/60119) | BIDMC |
| Cardiovascular Disease Epidemiology and Frailty | Epidemiologic Study | [Dr. Darae Ko](https://www.marcusinstituteforaging.org/who-we-are/profiles/darae-ko-md-msc) | HSL |
| Delirium Prediction from EHR Free Text | Predictive Modeling for Delirium Assessment \*Programming experience required | [Dr. Charlotta Lindvall](https://connects.catalyst.harvard.edu/Profiles/display/Person/118894) | Dana Farber Cancer Institute |
| Geriatric Medical Education in Internal Medicine Residency | Medical Education Study | [Dr. Julia Loewenthal](https://connects.catalyst.harvard.edu/Profiles/display/Person/139278) | Brigham and Women’s Hospital (BWH) Osher Center |
| Predicting Delirium: Developing an Inflammatory Index Score to Assess Risk of Postoperative Delirium in Older Patients | Epidemiologic Study | [Dr. Edward Marcantonio](https://connects.catalyst.harvard.edu/Profiles/display/Person/3871) | HSL/BIDMC |
| Medical Education on Carceral Health | Systematic Review | [Dr. Nicole Mushero](https://www.bumc.bu.edu/camed/profile/nicole-mushero/) | BUMC\*\* |
| Assessing Gait Speed in the Clinic - another vital sign | Clinical Research | [Dr. Ariela Orkaby](https://connects.catalyst.harvard.edu/Profiles/display/Person/120412) | VABHS/BWH |
| Nursing Intervention to Facilitate Advanced Care Planning for Older Patients in the Emergency Department | Qualitative Study | [Dr. Kei Ouchi](https://connects.catalyst.harvard.edu/Profiles/display/Person/125411) | BWH |
| Biological Age and Atrial Fibrillation in the Physicians’ Health Study | Epidemiologic Study | [Dr. Alexandre Pereira](https://connects.catalyst.harvard.edu/Profiles/display/Person/143023) | Mass General Brigham |
| Provider Perspectives on Safer Opioid Prescribing Guidelines | Qualitative Study | [Dr. Vassiliki Pravodelov](https://profiles.bu.edu/Vassiliki.Pravodelov) | BUMC |
| CRESCENT Implementation- Assessing the Experience of Dementia Care Managers | Qualitative Study | [Dr. Christine Ritchie](https://connects.catalyst.harvard.edu/Profiles/display/Person/28801) | MGH |
| Association of Mediterranean Diet and High Intake of Carotenoids with Frailty – Results from the Framingham Offspring Study | Epidemiologic Study | [Dr. Shivani Sahni](https://connects.catalyst.harvard.edu/Profiles/display/Person/46317) | HSL |
| (1) Geriatrics Education, focused on evaluating the new Harvard Medical School Aging and End of Life Theme and (2) Geriatrics Clinical Innovation, focused on implementing and evaluating the Age Friendly Health Systems initiative.  | Medical Education Study | [Dr. Andrea Schwartz](https://connects.catalyst.harvard.edu/Profiles/display/Person/100099) | HMS/ VABHS |
| Leucine-Rich Repeat Kinase 2 (LRRK2) Activity Modulates Rab-GTPase Phosphorylation in Genetic Mouse Models of Parkinson’s Disease | Bench Research \*Work with Dr. Shen requires relevant bench research experience | [Dr. Jie Shen](https://connects.catalyst.harvard.edu/Profiles/display/Person/10458) | BWH |
| Assessing Mobility Device Use and Frailty Progression in Community Dwelling Adults: findings from the National Health and Aging Trends Study (NHATS). | Epidemiologic Study | [Dr. Sandra Shi](https://connects.catalyst.harvard.edu/Profiles/display/Person/161776) | Hebrew Senior Life (HSL)/Beth Israel Deaconess Medical Center (BIDMC) |
| The Effect of Multimorbidity on Short-term Improvement after Percutaneous Coronary Intervention | Epidemiologic Study \*Some programing/data analysis experience required | [Dr. Jordan Strom](https://connects.catalyst.harvard.edu/Profiles/display/Person/21860) | BIDMC |
| Association of Kidney Function with Cognitive Function in an African American Sample | Epidemiologic Study | [Dr. Kevin Sullivan, Dr. B. Gwen Windham, Dr. Michael Griswold](https://www.umc.edu/mindcenter/Research/Our-Research-Team.html) | University of Mississippi Medical Center\*\* |
| Use of life logging devices to capture and review everyday events and rehabilitate memory in older adults and those with AD. EEG as a biomarker of Alzheimer’s disease and impact on clinical care. | Clinical Research and epidemiologic research | [Dr. Katherine Turk](https://www.bumc.bu.edu/neurology/profile/katherine-turk-md/) | VA Boston/ BUMC |