

Boston Geriatric Research Scholars Program

Program Overview

The program is designed to give medical students an 8-12 week aging research experience and training in research methodology.

Goals for Research Scholars

Students who participate in the program will:

Work on an aging related research project with a faculty member

Attend weekly didactic sessions on research methodology during the summer

Have the opportunity for clinical aging experiences in an outpatient, inpatient, and nursing home setting.

Prepare and submit an abstract to the American Geriatrics Society Meeting

Application

All applications are submitted through the American Federation for Aging Research (AFAR) website. Applicants interested in the Harvard site should contact the program director, Dr. James Rudolph, MD in advance to discuss opportunities and research interests. (jrudolph@partners.org)

Research Opportunities

Cognitive Aging

- Atherosclerosis related cognitive impairment
- Development of a rapid, clinical screening tool for cognitive impairment
- Effects of alcohol use on cognition in older adults
- Diagnosis, understanding the basic mechanisms, and developing treatments for Alzheimer's disease.
- Postmortem studies of Alzheimer's Disease
- Animal Models of Alzheimers's Disease

Physiology of Aging

- Cardiovascular physiology during exercise with aging
- Improvement of disability with increased strength through power training.
- Wasting syndromes
- Elucidating the biological and physiological mechanisms related to pain and other sources of physical distress.
- Calcium handling in myocardial cells
- Electrolyte management
- Osteoporosis and physical function
- Autonomic regulation and relationship to falls

End of life Research

- Understanding of the psychosocial, spiritual, and physical dimensions of quality of life

- Developing and testing strategies for the early detection, prevention, and management of psychosocial and physical symptoms associated with life-threatening illness

Delirium Research

- Interventional trials to treat and prevent delirium
- Animal models of postoperative delirium
- Delirium and pain control in cancer inpatients
- Delirium after cardiac surgery
- Delirium after non-cardiac surgery
- Postoperative Cognitive Dysfunction

Minority Aging

- The relationship of cardiovascular disease and cognitive function in African-American elders.
- Multicultural analysis of psychosocial aspects of aging
- Applying community-centered public health practice solutions to eliminate healthcare disparities.
- The Jackson Heart Study (JHS), a prospective epidemiologic investigation of cardiovascular disease among African-Americans from the Jackson, Mississippi metropolitan area. (research conducted in Jackson, MS)

Population Studies

- The Physicians Health Study (22,000+ participants) is a randomized double blind placebo controlled trial of aspirin in the reduction of cardiovascular mortality and beta-carotene in the reduction of cancer incidence among male physicians.
- The Physicians Health Study II (11,000+ participants) is now testing the balance of benefits and risks of three other widely used, but as yet unproven, supplements for the primary prevention of cardiovascular disease, cancer, and age-related eye disease-- vitamin E, vitamin C, and a multivitamin.
- The Nurses Health Study is a prospective cohort study of 121,700 female registered nurses to evaluate chronic illness among women.
- The Normative Aging Study Core Program continues to collect data on an aging cohort of veterans. NAS was initially established in 1963, as a longitudinal cohort study of biomedical and psychosocial parameters of aging involving 2280 initially healthy male veterans.
- The Massachusetts Alzheimer's Disease Research Center is a federally center that conducts state-of-the-art neuroscience research directed towards uncovering the causes treatment and prevention of Alzheimer's Disease.