



July 15th, 2021

Postdoctoral Fellow at the National Institute on Aging (NIA), NIH

- Mass spectrometry-based proteomics, cellular senescence, and aging biomarkers

The Translational Geroproteomics Unit (TGU) is seeking diverse, highly motivated, and enthusiastic postdoctoral fellows to tackle important questions in aging biology using proteomic approaches. This is a full-time and fully funded primary research fellowship for individuals interested in leveraging mass spectrometry-based proteomics to have a translational impact on age-related diseases linked to hallmarks of aging such as cellular senescence and loss of proteostasis. Postdoctoral fellows will be mentored by Dr. Nathan Basisty, and will have access to a highly interactive, resourceful, and dynamic scientific environment with state-of-the-art instrumentation and ample opportunities for training and career development.

The NIH and the TGU are dedicated to building a diverse community in its training and employment programs and are committed to creating and maintaining an environment that is welcoming, safe, accessible, and uplifting to ALL individuals. We encourage and welcome applications from individuals from underrepresented backgrounds.

Potential projects: We are looking for postdocs interested in working on various projects, including but not limited to:

- Discovery and validation of 'proteoform' (modified proteins and protein isoforms) biomarkers of aging and their relationship with the rate of aging, the development of age-related diseases as well as physical and cognitive disability in human cohort studies such as the BLSA, GESTALT, and InCHIANTI.
- Targeting and quantifying senescent cells and dissecting the functions of heterogeneous senescent cell populations via their surfaceomes (cell surface proteomes)
- Mass spectrometry method development, particularly the development and application of workflows involving data independent acquisition (DIA/SWATH), PTM identification/quantification, and/or protein turnover analysis.

Postdocs are encouraged to independently develop and drive the direction of research projects, as well as establish new research directions.

Training and career development: Fellows will have access to hands-on training in multiple technologies and scientific techniques including mass spectrometry-based proteomics on several high-end instruments, analytical chemistry, cell culture, and mouse work. The NIA offers multiple career development opportunities for postdocs, including opportunities to apply for internal funding through the FARE (Fellows Award for Research Excellence) program, Nathan Shock travel awards, Interlaboratory Funding Proposals, Postdoctoral Fellowship Funding Awards, and the [Independent Research Scholar \(IRS\) Program](#).

Postdocs are highly encouraged to attend conferences and scientific workshops for career development. Training also includes active participation in weekly multidisciplinary lab meetings, weekly [Longitudinal Studies Section \(LSS\)](#) Meetings, and professional development and research methods courses offered through the NIH [Office of Intramural Training and Education \(OITE\)](#). Fellows are also encouraged to take advantage of the NIH interest groups, particularly the Proteomics Interest Group and the NIA Molecular Biology Interest Group.

Postdocs will also have the opportunity to collaborate on projects with the Baltimore Longitudinal Study of Aging (BLSA), the longest running human aging study in the U.S., as well as other human cohorts (GESTALT, InCHIANTI).

Qualifications: The successful candidate must have a PhD, MD, or equivalent doctoral degree. We are looking for candidates with background and/or a strong interest in one or more of the following areas: mass spectrometry-based proteomics, characterization of PTMs, cell culture, or related fields who are passionate and self-motivated in research. Candidates with prior experience developing and performing mass spectrometry workflows, coding with R or Python, and experience with human or mouse aging models are especially encouraged to apply.

How to Apply: Please email a (i) CV, (ii) cover letter detailing research interest, experience, and career goals, and (iii) three references to Nathan Basisty, PhD at nathan.basisty@nih.gov.

Compensation: Salary is consistent with NIH guidelines and benefits include health, dental and vision insurances, paid time-off, and conference time.

Employer Name: National Institute on Aging (NIA)

Position Location: Baltimore, MD

Application Deadline: September 31, 2021, or until filled.

DHHS and NIH are Equal Opportunity Employers.

The NIH is dedicated to building a diverse community in its training and employment programs and encourages the application and nomination of qualified women, minorities, and individuals with disabilities.



Intramural Research Program
Our Research Changes Lives

