

FUNDING OPPORTUNITY: TRANSLATIONAL GEROSCIENCE

YALE PEPPER CENTER REQUEST FOR LETTER OF INTENT

The Yale Pepper Center is soliciting letters of intent from Yale faculty for new initiatives in translational geroscience. This pilot grant program, sponsored by the Department of Internal Medicine, is designed to facilitate innovative and high-impact translational geroscience research and establish/strengthen cross-disciplinary collaborations.

Translational Geroscience: The primary premise underlying the field of translational geroscience is that aging is the major risk factor for most chronic diseases. The geroscience hypothesis purports that significant gains in healthspan, as opposed to lifespan, can only be achieved by intervening upon the fundamental mechanisms of aging. Candidate mechanisms (or hallmarks) of aging include mitochondrial dysfunction, cellular senescence, epigenomic alterations, telomere shortening, loss of proteostasis, deregulated nutrient sensing, stem cell exhaustion, altered intercellular communication, and genome instability.¹ First-generation gerotherapeutics that target these mechanisms of aging are currently being tested in early-stage clinical trials.² After proof-of-principle has been established, such agents will be tested in larger clinical trials that focus on clinical and geriatric outcomes, including multimorbidity, frailty and cognitive decline.³

Scope: Letters of intent must propose new initiatives that combine Yale investigators from different disciplines and/or diverse backgrounds to work on specific problems relevant to translational geroscience. Human-based research should be involved. The study must ultimately translate to treatment that could slow the aging process, with the goal of extending healthspan.⁴ The proposed research should allow investigators to generate preliminary data for submission of extramural grant applications.

Eligibility requirements: Full-time Yale faculty members at the assistant professor level or higher may submit a letter of intent. Participation by two or more investigators from different disciplines is required. Teams may include faculty from more than one department, although the PI should be from the Department of Internal Medicine.

Funding: Investigators may request up to \$50,000 for a 1-year pilot project. It is expected that the award will be used to support individuals and to provide materials that will enable the development of integrated programs and generation of preliminary data.

Key dates:

Due date for letter of intent: October 24, 2022 by 5:00 PM

Invitation for full proposal issued by: November 11, 2022

Due date for full application: December 21, 2022 by 5:00 PM

Earliest anticipated start date: April 1, 2023

Application materials, including a complete set of instructions, may be obtained from the Pepper Center website:

<https://medicine.yale.edu/intmed/geriatrics/peppercenter/about/opportunities/> or
poa@yale.edu.

References:

1. Lopez-Otin C, Blasco MA, Partridge L, Serrano M, Kroemer G. The hallmarks of aging. *Cell*. 2013;153:1194-1217.
2. Kulkarni AS, Aleksic S, Berger DM, Sierra F, Kuchel GA, Barzilai N. Geroscience-guided repurposing of FDA-approved drugs to target aging: A proposed process and prioritization. *Aging Cell*. 2022;21:e13596.
3. Sierra F, Caspi A, Fortinsky RH, Haynes L, Lithgow GJ, Moffitt TE, Olshansky SJ, Perry D, Verdin E, Kuchel GA. Moving geroscience from the bench to clinical care and health policy. *J Am Geriatr Soc*. 2021;69:2455-2463.
4. Olshansky SJ. From Lifespan to healthspan. *JAMA*. 2018;320:1323-1324.