

ISL Basic Science Working Group Updates and Plan for 2026-2027

Goal and key deliverables: The ISL Basic Science working group primarily focuses on bringing together and fostering collaborations among researchers investigating the fundamental biological, psychological, and social mechanisms of aging. The goal is to initiate, mediate and establish scientific collaborations for research ideas and projects aimed to unveil novel scientific knowledge, fundamental mechanisms, and discoveries that could help promote healthy aging and longevity and open avenues for the development and use of groundbreaking preventative and treatment strategies, including lifestyle, nutrition, sleep, exercise, and pharmacological-based interventions, to mitigate the prevalence and risk of aging-associated chronic diseases. The group adopts a multidisciplinary approach by bringing in experts from various fields including microbiology, immunology, neuroscience, gerontology, psychology, computational biology, and artificial-intelligence/machine-learning to understand the aging biology from a comprehensive perspective. Some of the key goals of the group are:

- To help develop and promote research and scientific understanding in context to the biological mechanisms of aging and age-associated immunological, cardiometabolic and neurocognitive disorders.
- To discuss and promote emerging research as well as funding opportunities focused on investigating biological mechanisms of aging, promoting healthy aging, and preventing aging-associated disorders.
- To promote interdisciplinary and multidisciplinary research and facilitate initiatives and collaborations among FSU researchers on scientific ideas aimed to better understand and improve human aging and longevity.
- To identify and discuss shared research needs as well as challenges of researchers and introduce and help connect faculty and students with institutional and/or external resources to help enhance research productivity.

Achievements from the past year: Over the past year, the Basic Science working group organized several affiliate meetings where discussions were focused primarily on sharing and discussing recently announced research funding opportunities related to aging and related health and disease aspects that could be relevant to ISL basic science affiliates. These included recently announced opportunities by federal agencies including NIH and DoD as well as foundations such as Alzheimer's Association, Zenith Fellows Award Program, BrightFocus Foundation, American Federation for Aging Research (AFAR), and the Patient-Centered Outcomes Research Institute (PCORI) Broad Pragmatic Funding Announcements. The meetings also involved discoursing recent developments and administrative changes occurring at NIH, NSF, NSF, USDA and other agencies regarding evolving research priorities and guidelines and discussing strategies for the researchers to help navigate and evolve through these emerging developments. The group also welcomed several new members that recently joined the ISL affiliate board. The group also organized meetings and help the new affiliates getting acquainted about various programs and resources at FSU that are particularly beneficial for new faculty and early-career investigators, such as the ISL Seed Grant programs, the CRC Seed Grant programs, CRC FYAP awards, CRC EIEG awards, and the Provost travel grant program. The group also discussed the emerging developments at FSU in context to FSU-Health initiatives and how ISL and its affiliates could play a key role in addressing aging research. The group also provided updates on the newly established centers and programs at FSU, including the ICON-Health (Institute for Connecting Nutrition and Health), (2) the MACHA (Maternal and Child Health Alliance) Research Interest Group, and (3) the Center for Integrative Nutrition & Food Research (CINFR). The group also discussed the prospects for affiliates on capitalizing on existing big databases such as The UK

BioBank and the expanding NIH “All of Us” databases that could be accessed for various research purposes.

Plans for the coming year:

- In the coming year, the group aims to continue building on and undertaking new initiatives and identify, promote and discuss funding opportunities in aging and longevity field by involving multidisciplinary collaborations while continuing efforts to further enhance collaboration and engagement among ISL affiliates and researchers.
- The group aims to work with the other two working groups on developing novel avenues for promoting interdisciplinary and multidisciplinary research collaboration initiatives and faculty engagement with tangible outcomes.
- The group plans to actively identify specific research-related challenges faced by affiliates and researchers and help address these in collaboration with the ISL leadership, the FSU Office of Research, FSU Health, core facilities, community partners, or other relevant parties, to help resolve these challenges and help enhance research activities and productivity.
- The group also plans on developing more resources and opportunities specifically for emerging researchers particularly graduate students and postdoctoral trainees to help them have more engagement with ISL activities and help enhance their research training, scientific credentials, and exposure to various career and outreach opportunities.