PIONEERS IN BIOMEDICAL RESEARCH SEMINAR

Presented by the Fralin Biomedical Research Institute and co-sponsored by the institute's Center for Exercise Medicine Research



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The Role of Exercise-Induced Blood Factor in Partial Reversal of Age-Related Loss of Plasticity in the Brain

Aging drives cellular and cognitive impairments in the adult brain. It is imperative to gain mechanistic insight into what drives aging phenotypes in the brain in order to maintain, and even restore, functional integrity in the elderly. Dr. Villeda's team, and others, have shown an age-dependent bi-directionality in the influence of the systemic environment indicating pro-youthful factors in young blood elicit rejuvenation while pro-aging factors in old blood drive aging, indicating that pro-youthful factors in young blood elicit rejuvenation, while pro-aging factors in old blood drive aging. Introducing pro-youthful factors, or mitigating the effect of pro-aging factors, may provide effective strategies to rejuvenate aging phenotypes in the brain. Dr. Villeda's research focuses on providing mechanistic insight into the systemic and molecular drivers promoting rejuvenation in the aging brain. It has been proposed that introducing pro-youthful factors or mitigating the effect of pro-aging factors may provide effective strategies to rejuvenate aging phenotypes in the brain. Despite this potential, much is unknown as to the systemic and molecular mechanisms regulating pro-youthful and pro-aging effects of blood-borne factors. Dr. Villeda will discuss work from his research group that begins to provide mechanistic insight into the systemic and molecular drivers promoting rejuvenation in the aging brain.

FRIDAY, JAN. 31, at 11 a.m.

Room G101 A/B, 4 Riverside Circle Watch live via Zoom at <u>https://FralinBioMed.info/PBR-Join</u>.

