

Longer Life Foundation

An RGA/Washington University Collaboration

The Longer Life Foundation (LLF), a collaboration of RGA and Washington University School of Medicine in St. Louis, is proud to announce its newest research grant recipients. These individuals are investigating some of the most important health and wellness issues of the day. To find out more about the LLF and the research it has funded to date, please visit www.longerlife.org or reach out to Dr. Dan Zimmerman at dzimmerman@rgare.com or Dr. Preeti Dalawari at preeti.dalawari@rgare.com.

Longer Life Foundation 2022-2023 Grants

Investigator, Project Title	Project Description
Anuja Java, M.D., M.S.C.I. (Year 2) The Role of Complement in Hypertensive Disorders of Pregnancy	Preeclampsia is a severe complication of human pregnancy characterized by high blood pressure and signs of damage to other organ systems. Despite intensive research efforts, preeclampsia's causes are not well understood. It may involve the complement system, as prior research revealed mutations in complement proteins. This study will focus on these mutations to determine if they are damaging and likely causal of preeclampsia.
Nathan Stitzel, M.D., Ph.D. (Year 2) Targeting Receptor Interactions with SVEP1, a Circulating Biomarker of Longevity in Humans	SVEP1 is a novel biomarker of age and longevity in humans that is causally associated with risk of multiple age-associated chronic diseases. Although the cellular receptor and signaling pathway responsible for SVEP1's role in these diseases was previously unclear, the investigator in his first year identified a high affinity interaction between SVEP1 and a cell surface receptor named PEAR1. This year's funding will enable Dr. Stitzel to assess how SVEP1 interacts with this novel receptor and develop a method to measure levels of SVEP1. This research will expand our understanding of how SVEP1 influences disease and the therapeutic potential of targeting it as a treatment for many age-associated diseases.
Bettina Mittendorfer, Ph.D., Director, Longevity Research Program (LRP) (Year 1 of 3) Dietary Protein and Cardiovascular Health	This grant supports the LRP's ongoing research into potential links, mechanisms, and impacts of diets too high in protein on cardiovascular outcomes. The focus of LRP's work is now on assessing a high protein diet's impact on platelet and endothelial functioning, both of which can influence cardiovascular pathology. .

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Peter Kang, M.D. (Year 1) Defining the Role of Neuroinflammation in Vascular Cognitive Impairment	Cerebral small vessel disease (CSVD) and vascular contributions to cognitive impairment and dementia (VCID) are leading causes of disability and cognitive impairment in older adults. Though manifestations of CSVD and VCID are common, the underlying mechanisms of disease remain unknown. This project will use novel and noninvasive MRI techniques and fluid biomarkers to understand the role neuroinflammation plays in the development of CSVD/VCID, and to help determine who may be at the highest risk for disease progression.
Jessica Silva-Fisher, Ph.D. (Year 1) Long Non-Coding RNAs as Markers of Multiple Myeloma (MM) Progression	MM accounts for about 13% of all hematologic malignancies and 1% of overall cancers. Despite advances, it is still incurable. The goal of this investigation is to understand why and how MM progresses to address the critical need for better prognostic markers, improve diagnoses, and create targeted therapies.
Milan Chheda, M.D. (Year 1) Glioblastoma and the Aging Brain	Brain tumors increase in frequency with age. This study's goals include: preventing glioblastoma recurrence; determining whether senescent cells increase cell proliferation and DNA damage; and determining if senolytic therapy can prevent tumor recurrence.
Laura Marks, M.D., Ph.D. (Year 1) Pathogenesis and Molecular Epidemiology of S. Aureus Isolates Associated with Invasive Infections Among People Who Inject Drugs (PWID)	S. aureus causes one of the most deadly types of bloodstream infections. Little is known about where these infections originate – whether from the skin or the environment. This investigator will study people who inject drugs, who are at some of the highest risks of invasive S. aureus infections, as well as matched control patients, to identify if bacteria recovered from the skin or the environment match those strains causing these serious bloodstream infections.

DR. ALPERS RETIRES FROM THE LLF



After many years chairing the Longer Life Foundation's Scientific Review Committee, **Dr. David J. Alpers** has retired from that post as of August 2022.

The benefit to the LLF and its investigators of Dr. Alpers' prodigious knowledge of clinical medicine and of research has been incalculable. Over the years, he has successfully mentored many young researchers as they embarked on their careers, providing the intellectual support they needed to develop grant proposals and then conduct their research successfully.

Dr. Bradley Evanoff, who has recently co-chaired the Scientific Review Committee, assumed sole leadership in August 2022. The LLF is looking forward to the experience which Dr. Evanoff will bring to the Foundation. To read more about Dr. Evanoff, please see this [link](#). **ReF**