

# **The Longer Life Foundation**

## **An RGA/Washington University Collaboration**

### ***Call for Applications Developmental Research Awards – 2024***

#### **Background:**

A collaboration of Washington University School of Medicine in St. Louis and Reinsurance Group of America, Incorporated (RGA), the **Longer Life Foundation** has as its mission:

***To fund and support the study of factors that either predict the mortality and morbidity of select populations or influence improvements in longevity, health, and wellness.***

#### **Scope of work:**

The Longer Life Foundation announces the 2024 Call for Applications for Washington University in St. Louis faculty for Pilot and Feasibility Research Projects addressing topics related to the Foundation's mission. We are looking to fund research studying determinants of long-term outcomes for common human risk factors or conditions.

Preference is given to clinical or epidemiologic research that involves the potential for new discoveries rather than the implementation of existing therapeutic strategies. We also fund studies that investigate methods to improve disease prevention or improve prognosis, thereby improving quality and quantity of life. However, these studies should involve diseases specifically posing a risk or are known to shorten life expectancy.

We are interested in individual pilot and feasibility studies as well as pilot projects that are a component of larger or established studies, such as analyses of existing databases.

#### **General areas of interest include *but are not limited to*:**

- Mechanisms or interventions that prevent disease and promote longevity
- Prognosticators of disease progression, survival, and longevity
- The collective impact of common comorbid conditions on outcomes in diseases that shorten life expectancy or the healthspan
- Cancer screening methodologies and tumor markers to improve outcomes

- Studies to further understand the underlying physiology and pathophysiology of the aging process
- Physical and cognitive/mental impairments in older adults and their effect on disease severity and survival
- Cardiometabolic disorders and obesity and impact on health and mortality
- Applications of emerging technology, artificial intelligence (AI), generative AI, and quantum computing

**Specific areas of interest by category of interest include but are not limited to:**

- General Mortality and Impact of Metabolic Risk Factors
  - Predicting short- and long-term population mortality rates and life expectancies
  - Modeling mortality through the use of new and emerging non-traditional risk factors
  - Analysis of longitudinal data to enhance mortality predictive value (e.g., blood pressure or other biometric data) measured over the course of time
  - Novel uses of synthetic data to simulate large clinical studies
  - Understanding and evaluating the reliability of diagnostic and administrative codes when used for predictive modeling
  - Assessing artificial intelligence and data analytics to ensure no explicit or implicit discrimination by proxy
  - Impact and/or value of continuous glucose monitoring in non- or pre-diabetics
  - Studies focusing on primary and secondary aging or exploring the phenomenon of “superaging”
- Epidemics/Pandemics/Infectious Diseases
  - Defining and assessing the impact of long COVID on long-term mortality and morbidity outcomes
  - Pandemic risk modeling and ways to mitigate catastrophic outcomes
  - Antimicrobial resistance – assessment of impact and methods to prevent
  - New technologies to address future risk of pandemics, e.g., development of universal flu or COVID-19 vaccines
- Social Determinants of Health
  - Impact of social determinants, socioeconomic status, and other disparities on health and/or mortality outcomes
    - Consideration could be given to using implementation science to assess study design and determination of interventional value
  - Impact of immigration and/or country of origin
- Behavioral Medicine
  - Understanding the psychological and motivational driving factors which prevent or support people following medical advice and/or making favorable lifestyle modifications
  - Identifying risk factors for developing dependence on opioids or other drugs of addiction, including alcohol
  - Scientific assessment of the clinical benefit or harms of medical or recreational marijuana

- Short- and long-term impact of vaping
- Assessment of engagement and outcomes in wellness programs utilizing the methods of implementation science
- Mental and Cognitive Health
  - Identifying and assessing risk of mental health disorders and/or risk predictors of suicide
  - Measuring the impact of mental health disorders on co-morbid conditions
  - Next generation tools and techniques for pre-clinical screening and early identification of cognitive impairment
- Genomics/-omics
  - Impact of genomics on the taxonomy of disease and, in particular, on cancer staging and cancer prognosis
  - Quantifying the predictive value of family medical history in assessing individual morbidity and mortality risk
  - Impact of direct-to-consumer (DTC) genetic testing on subsequent behavior change or proactive health actions
  - Uses of other “-omics” in disease detection, diagnosis, prognostication, or treatment
- Social Responsibility
  - Impact of climate change on health, wellness, mortality, and morbidity
  - Impact of microplastics and other environmental pollutants, e.g., “forever” chemicals

**General criteria for evaluation:**

Following are several criteria considered during the Longer Life Foundation’s review of grant applications. These criteria are in addition to the topic selected. One or more of these criteria should be considered for inclusion in each application, if consistent with the proposal. No one criterion is more important than any other.

- Applicability to broad audiences or populations
- Elucidation of mechanism of disease, even if patient population is not large
- Enhancement of length or quality of life
- Clear pathway and suggested timeline outlined to achieve clinical application
- Primary prevention of a particular disease or disability and prevention of sequelae or complications of disease
- Applications from researchers with international collaborators are encouraged
- Application of new and emerging technologies to topics of interest related to the Longer Life Foundation’s mission

More information on the Longer Life Foundation and a list of past funded studies can be found on the Foundation’s website: [www.longerlife.org](http://www.longerlife.org).

**Who is eligible:**

- Young investigators with at least two years of research experience who are interested in longevity-related research and have yet to obtain independent funding
- Established investigators who are developing a new direction in research on determinants of health and longevity

Investigators must have an M.D., Ph.D., or similar degree in their field, and have an affiliation with Washington University in St. Louis. Post-doctoral fellows are not eligible.

**Awards:**

The project period will be October 1, 2024 to September 30, 2025. The amount of funding for each grant will be up to \$50,000 (**direct costs**). A second year of funding may be requested by submitting a competing renewal application in the 2025 grant cycle in which progress should be reported and justification provided for a second year of funding.

**Terms of awards:**

All applications must have appropriate institutional regulatory approval submitted with the proposal prior to dispensation of funds. Grantees will meet with the Chair of LLF's Scientific Review Committee at the beginning of the project period to discuss their study, and again at six months to review progress and discuss future plans for the research.

Grantees are required to submit a final report at the completion of their study. Grantees requesting a no-cost extension must submit a progress report and justification for the extension. A progress report should also be submitted after year one if a second year of funding is approved. This report will be posted on the Longer Life Foundation's website.

Grantees must inform the Foundation when their research is published by peer-reviewed publications. All published peer-reviewed research papers should acknowledge support from the Longer Life Foundation: An RGA/Washington University Collaboration.

**Important dates:**

- Letters of Intent (LOIs) are due by midnight Central Standard Time, February 16, 2024
- Decisions regarding approval to submit a formal application will be provided by April 26, 2024
- Applications are due by midnight, Central Daylight Time, May 24, 2024
- Notification of grants will be made by September 6, 2024
- Funding begins October 1, 2024

**Application procedure:**

Investigators interested in applying for funding **MUST** submit a Letter of Intent to the Longer Life Foundation. All Letters of Intent will be reviewed by the Foundation's Scientific Review Committee and Advisory Group. Only those investigators whose Letters of Intent have been approved by the Committee after review will be invited to submit a full application. Decisions to invite an investigator to submit or not submit a full application are based upon the relevance of

the research to the Foundation's mission and the number of grants that can be awarded that year. All investigators are provided with feedback about the award decision.

Letter of Intent:

Letters of Intent are due by midnight, Central Standard Time, February 16, 2024.

Letters should include:

- A one- to two-page description of the research, including project title, aims, method of approach, relevance to the mission of the Longer Life Foundation, and Scope of Work.
- An NIH-format biographical sketch

The Letter of Intent and biographical sketch should be submitted as a **SINGLE** electronic file.

Please submit Letters of Intent to:

- Daniel D. Zimmerman, M.D. [dzimmerman@rgare.com](mailto:dzimmerman@rgare.com)
- Bradley Evanoff, M.D. [bevanoff@wustl.edu](mailto:bevanoff@wustl.edu) cc: Karen Muehlhauser [kmuehlha@wustl.edu](mailto:kmuehlha@wustl.edu)

Letters of Intent will be reviewed and feedback provided by April 26, 2024.

Application:

Applications must be submitted before midnight, Central Daylight Time, May 24, 2024.

The application should be submitted in a **SINGLE** electronic file and must include, in this order:

- Face page, which must include:
  - Principal Investigator's name, degree(s), current position title, department, and email address
  - Title of proposed study
  - Whether the study is Human Subject Research and/or Vertebrate Animal Study
- Abstract
- Summary and description in lay language
- NIH-format biosketch, including other support
- Research plan (six pages maximum, excluding references and budget). Please include:
  - Specific aims
  - Scope of work and relevance of project to the mission of the Foundation
  - Background and significance
  - Preliminary data or progress report if applying for a second year of funding
  - Research design and methods
- Plans for obtaining additional extramural funding arising from the proposed research
- References
- NIH-format budget and budget justification
- OSRS Institutional Official Approval letter

Additional instructions:

- Format: Single-spaced, 11- or 12-point font
- Header on **each page** of application: Title of research, investigator's name

Please submit completed applications to:

- Daniel D. Zimmerman, M.D. [dzimmerman@rgare.com](mailto:dzimmerman@rgare.com)
- Bradley Evanoff, M.D. [bevanoff@wustl.edu](mailto:bevanoff@wustl.edu) cc: Karen Muehlhauser [kmuehlha@wustl.edu](mailto:kmuehlha@wustl.edu)

For a copy of the Regulations Governing Grants from the Longer Life Foundation or additional information, please email Karen Muehlhauser [kmuehlha@wustl.edu](mailto:kmuehlha@wustl.edu). All funded researchers will receive a copy of the Regulations Governing Grants at the time of their award.