

REQUEST FOR APPLICATIONS

Global Consortium for Reproductive Longevity and Equality (GCRLE)

The Buck Institute, together with its sponsor the Bia-Echo Foundation, invites investigators to apply for two-year research projects focused on better understanding female reproductive aging.

OPPORTUNITY

Overview

The [Buck Institute](#), with the support of its sponsor [Bia-Echo Foundation](#), invites applications to a new program focused on understanding the fundamental drivers of female reproductive aging through its [Global Consortium for Reproductive Longevity and Equality](#). Our goal is to support 1) breakthrough research on reproductive aging and 2) women in science through funding, training, infrastructure and collaborative intellectual networks.

The end of fertility sets off a cascade of negative health effects in a woman's body. As a society, every aspect of a woman's life is influenced by the fact that her reproductive capacity is limited -- overall health, family planning, health, and career decisions. Despite its profound impact on women's health and well-being, female reproductive aging is an understudied topic. We intend to jumpstart the field by attracting the world's best and brightest researchers to focus their efforts on understanding female reproductive senescence via resource incentives. The Consortium will provide resources in the form of research grants, and training, support and networking opportunities to scientists all over the world at the postdoctoral, junior, and senior faculty levels to pursue innovative research on reproductive aging and accelerate the development of strategies to prevent or delay ovarian aging. Grantees will automatically become members of the [Global Consortium for Reproductive Longevity and Equality \(GCRLE\)](#).

GCRLE seeks applications aimed toward **identifying unifying principles that underlie female reproductive aging**. Our goal is to stimulate collaborations across disciplines that will help define a new field. We will provide a forum for both formal and informal interactions between Consortium members to promote the exchange of ideas and collaborative synergies. We will implement a support structure that includes formal and informal mentoring to support women scientists in the field at different career stages. There will be a bi-annual symposium meeting where current grantees present ongoing research before their peers and consortium members, brainstorm about how to move the field forward. The goal is to build relationships that cross institutional and international boundaries.

Specific Funding Mechanisms

The call for **Senior Scholar Awards** seeks two-year projects that will support established investigators who are thought leaders in their respective fields and are recognized for substantial contributions of creative and productive research to pursue substantive, innovative research in female reproductive aging.

The call for **Junior Scholar Awards** seeks two-year projects that will support early career investigators with outstanding promise when they are establishing their own labs. These awards are to encourage young scientists to pursue bold ideas in female reproductive aging when they are at their most scientifically creative. Early career investigators are defined as principal investigators who have been in an independent faculty role for less than six years at the time of application, i.e. starting after February 3, 2014. Independence is typically demonstrated by a full-time faculty appointment, allocated space, a start-up package, and institutional commitment as defined or verified in a letter from a department chair or equivalent.

The call for **Postdoctoral Fellowship Awards** seeks two-year projects that will support exceptional young scientists at the beginning of their postdoctoral training in the area of female reproductive aging, broadly

defined. Our goal is to provide support and training to promising postdoctoral scholars and to encourage the next generation of researchers to pursue creative projects in this exciting nascent field. Applicants must be within 3 years of the date of the award of their PhD or 4 years of their M.D. on February 3, 2020.

The call for **Pilot Awards** seeks applications for two-year pilot projects to foster innovative collaborative or novel research projects in female reproductive aging that have the potential for high impact and high reward at an accelerated rate. These awards will allow collection of preliminary data to apply for larger grants and we encourage applications to fund novel collaborative cross-discipline projects, with an emphasis on projects that establish novel collaborations.

For all funding mechanisms, we seek to complement other major funders of research by placing emphasis on projects that may not be supported by traditional sources because of their perceived novelty or high risk, or because the investigator is moving into female reproductive aging from a different research area. The awards are open to researchers based at both national and international accredited academic and nonprofit research institutions.

Scientific Scope

The long-term goal of this program is to address the mechanisms of female reproductive senescence at the cellular and organismal level, including its molecular drivers, and the effects of genetic and environmental factors on relevant cellular/system properties and interactions. This funding opportunity is explicitly aimed at basic biomedical research on female reproductive aging, broadly defined. It is not intended to support clinical trials, drug development, or whole-genome analysis.

We encourage applications from:

- Researchers in disciplines outside of aging or reproductive biology who bring new technology, resources, or conceptual frameworks to studying female reproductive aging;
- Researchers who utilize quantitative or computational methods in their work;
- Groups of investigators who have not previously worked together; and
- Women, underrepresented minorities, and members of underserved populations.

Successful outcomes for this RFA could include, but are not limited to:

- Development, validation, and dissemination of robust experimental and analytical tools;
- Discovery of underlying mechanisms causal for female reproductive decline;
- In vitro or in vivo models of menopause or other aspects of female reproductive aging that are experimentally tractable and help translate between human and non-human systems;
- Benchmark datasets for the field that will inform mechanistic approaches, deposited into shared data platforms provided by the GCRLE.

Sharing and Collaboration

To accelerate research in the area of female reproductive aging, GCRLE seeks investigators who will contribute to a collaborative interdisciplinary network and the advancement of the field.

- Investigators and members of their labs will participate in annual meetings of all funded grantees and smaller meetings focused on specific biological or technical topics.
- Investigators and GCRLE staff will work together to identify resources and technology that will support the field as a whole.
- Investigators will commit to rapid dissemination of all resulting data, protocols, code, reagents, and results prior to publication through resources such as protocols.io, GitHub, Addgene, and preprints.

ELIGIBILITY

All Funding Mechanisms:

- Applicants must hold a PhD, MD, or equivalent degree.
- Applications will be accepted by domestic and foreign non-profit organizations; public and private institutions, such as colleges, universities, hospitals, laboratories, units of state and local government; and eligible agencies of the federal government.
- Each Investigator may only participate in one application.
- Multiple applications from different Investigators will be accepted from a single institution.
- Collaborative applications should be interdisciplinary.
- Collaborative applications should designate one Primary Investigator as the Coordinating Principal Investigator (Coordinating PI). The Coordinating PI will act as the administrative contact between GCRLE and all PIs on the grant. The Coordinating PI must submit the application on behalf of all PIs.
- The Coordinating PI must be affiliated with the institution submitting the application, and grant funds will be awarded to that institution, which will take responsibility for distributing funds and flowing down the terms and conditions of this agreement to any other institutions. Note that foreign institutions may not subcontract to US institutions, so please be mindful when selecting the Coordinating PI/institution.
- All grants will be made in compliance with the US Treasury Department's Office of Foreign Asset Control (OFAC) program. For additional information regarding OFAC sanctions, please refer to the [US Treasury Department's resources](#).
- GCRLE reserves the sole right to decide if an applicant and applicant organization meet the eligibility requirements.

Specific Eligibility Requirements:

Senior Scholar Awards

- Applicants must have an academic appointment and be in an independent faculty position or equivalent at an accredited college, university, medical school, or other research facility. Independence is typically demonstrated by a full-time faculty appointment, a tenure-track or tenure-track equivalent position, allocated space, a start-up package, and institutional commitment as verified in the Institutional Approval Form from a department chair or equivalent.

Junior Scholar Awards

- Applicants must be principal investigators with an academic appointment who have been in an independent faculty role at an accredited college, university, medical school, or other research facility for less than six years at the time of application, i.e. starting after February 3, 2014. Independence is typically demonstrated by a full-time faculty appointment, allocated space, a start-up package, and institutional commitment as verified in the Institutional Approval Form from a department chair or equivalent.

Postdoctoral Fellowship Awards

- Candidates who hold, or are in the final stages of obtaining a Ph.D., M.D., or equivalent degree and are seeking beginning postdoctoral training in basic biomedical research are eligible to apply for a postdoctoral fellowship award.
- Candidates must be within 3 years of the date of the award of their PhD or 4 years of their M.D. on February 3, 2020.
- Applications from established scientists or advanced fellows will not be considered. The fellowships are for early-mid postdoctoral training only.
- Preferred consideration will be given to applicants who plan tenure of the fellowship in a laboratory in which they have not already received extensive pre-doctoral or postdoctoral training. The aim of the

fellowship is to broaden postdoctoral training and experience, and a significant change of venue is advisable.

- Awards are limited to one per laboratory/faculty sponsor.
- Fellowship training should be obtained in an academic setting. Applications that propose training in a commercial or industrial laboratory will not be considered.

Pilot Awards

- Applicants must have an academic appointment and be in an independent faculty position or equivalent at an accredited college, university, medical school, or other research facility. Independence is typically demonstrated by a full-time faculty appointment, a tenure-track or tenure-track equivalent position, allocated space, a start-up package, and institutional commitment as verified in the Institutional Approval Form from a department chair or equivalent.

For questions about eligibility or the application process, please contact us in advance of the proposal deadline at gcrlegrants@buckinstitute.org. Deadline extensions will not be granted.

APPLICATION DETAILS

Budget

	Year 1 (total costs)	Year 2 (total costs)
Senior Scholar Awards	\$400,000	\$400,000
Junior Scholar Awards	\$250,000	\$250,000
Postdoctoral Fellowships	\$100,000	\$100,000
Pilot Awards	\$100,000	\$100,000

GCRLE does not require a detailed budget. Funds from the Senior Scholar, Junior Scholar, and Pilot awards are intended to support research activities, and may be used for salary, laboratory research supplies, scientific meeting registration and travel expenses (including the GCRLE Annual Meeting), capital equipment, and small equipment (including computer workstations, a laptop, printer). Indirect costs are allowed on the Senior Scholar, Junior Scholar, and Pilot awards and must be included within the total budget. For institutions inside the United States of America, indirect costs are determined by agreement between individual grantees and their institutions and cannot exceed the Institutional NIH-negotiated rate but may be lower and may not be assessed on capital equipment. For Institutions outside the US, indirect costs are capped at 8% and may not be assessed on capital equipment and subcontracts exceeding \$25,000. No indirect or overhead costs may be charged to the Postdoctoral Fellowships. Investigators of funded projects will be required to participate in regular investigator meetings, including biannual investigator meetings. Travel support for these meetings should be budgeted from the requested GCRLE grant funds.

Key Dates

December 2019: Application portal opens

February 3, 2020: Applications due by 11:59 pm PST

April 2020: Earliest notification of decisions (subject to change)

April 15, 2020: Earliest start date of award period (subject to change)

Awards will be two years in duration with a project start date of no earlier than April 15, 2020. Actual start date may vary.

Application Specifics

All applications must be completed and submitted through the Global Consortium for Reproductive Longevity

and Equality's online grants management portal ([@ad•KQ\] \[\[•a& } dæB \[{ 0'æ d \] \] \[:c } ăă•Ēæ \] NÖT ÖMGEI](#)). We recommend applicants familiarize themselves with this portal well in advance of any deadlines.

SELECTION PROCESS

GCRLE will evaluate all applications for scientific merit and will seek independent expert review of applications by a Scientific Advisory Council (SAC). The Scientific Advisory Council will be composed of leaders in the field from all over the world who will review, identify and recommend the most promising grant applications based on quality of science, impact and alignment with the Consortium's stated goals. Finalists for each mechanism may be asked to participate in a short in-person interview via remote link with members of the SAC. Final funding decisions will be made by GCRLE staff in consultation with Bia-Echo and our scientific advisors. Buck Institute faculty may apply for Consortium grants but will receive no special consideration during the selection process.

We expect to award two Senior Scholar Grants, five Junior Scholar Grants, ten Postdoctoral Fellowships, and six Pilot Grants. GCRLE does not provide feedback on decisions for unfunded proposals.

Selection of awardees will be based on:

- The scientific quality of the proposal and the applicants;
- Potential impact of the work on an understanding of female reproductive aging, broadly defined;
- Degree to which the proposed work bridges scientific areas and brings new ideas to the field; and
- Potential of investigators to contribute to a highly collaborative interdisciplinary network.

POLICIES

- Funds from this award are intended to support research activities. Grants are made to institutions on behalf of the named award recipients and reasonable flexibility on how these funds are utilized is allowed, provided that the funds are used to support research activities related to the project. Funded investigators will be asked to provide summary budgets at the time of award and during annual reporting.
- For awarded projects, financial statements and progress reports will be due at the conclusion of each grant year. Specific deliverable requirements will be outlined in the award notification. Investigators of funded projects will be required to participate in regular investigator meetings, including biannual investigator meetings. Travel support for these meetings should be budgeted from the requested GCRLE grant funds.
- Grantees may obtain funds for their research from other funding sources, provided that there is no conflict with meeting the terms of the GCRLE award. Additional funding should be reported as an outcome on the annual and final reports.
- **Ethical conduct:** GCRLE advocates the highest standards for the ethical conduct of research. In addition to requirements of their own countries, grantees should adopt procedures for the humane and ethical use of animals in research and for the ethical treatment of human subjects and tissue donors, including obtaining their written informed consent. GCRLE regards the [policies](#) of the [National Institute of Health](#) as a strong model for such procedures.
- **Data, publication, and dissemination policies:** To accelerate scientific discovery and collaboration, GCRLE supports a consent, sharing, and publication policy for open and rapid dissemination of research results, including methods, data and reagents, and a policy for software development that maximizes accessibility, reuse, and shared development. Under rare circumstances, exceptions to the above may be considered where there are specific situations that make meeting these goals impossible or counterproductive to the project.

- **Software code:** GCRLE and the Buck Institute require sharing of software code developed by its grantees to generally be made publicly available on GitHub (or a similar public service) under a permissive open source license (MIT, BSD 2-Clause, BSD 3-Clause, or Apache v2.0). All pre-existing and derivative code should be designed to be licensed under the most permissive license possible, given the licensing terms of the pre-existing code. All analysis packages must be released through the appropriate language-specific package manager with documentation, example data, and interactive demos (e.g., Jupyter notebooks), and the use of Docker or similar container technologies to ensure portability and reproducibility. Software code supported by GCRLE should be archived for [long-term digital preservation](#) and [citability](#), when applicable.
- **Content and data sharing:** GCRLE and the Buck Institute are committed to developing and using platforms that disseminate data openly and freely. Any datasets either curated or generated through the proposal should be made publicly available and easily accessible through an appropriate [data repository](#), when applicable, under an [Open Definition conformant license](#). GCRLE will also provide network infrastructure for data sharing among grantees.
- **Publications:** To encourage rapid dissemination of results, any publications related to this funded work must be submitted to a preprint server, such as bioRxiv, before the first submission to a journal. Experimental protocols should be made publicly available through a protocol sharing service, such as [protocols.io](#). GCRLE requests that scientific publications, preprints, and presentations that result from this award acknowledge the project was supported by GCRLE funding.
- **Reagent sharing:** Resources and reagents developed with this funding support should be available for rapid dissemination to the community, where possible in an accessible community repository, such as Addgene (for plasmids/DNA reagents/viruses) and Jackson Labs (for mouse lines), etc. This requirement applies to cell lines, transgenic organisms, plasmids/clones, antibodies, and other reagents.
- **Consent:** All human tissues should be adequately and fully consented to permit full sharing of the resulting data and any resulting tools, in accordance with laws and regulatory requirements. Any desired exceptions to this policy must be identified at the time of application, and such requests may affect the application's chance of success.
- **Intellectual property rights:** The Buck Institute and GCRLE do not require assignment of ownership to any data, published results, or any other intellectual property that results from the work funded by these grants, but will have the same rights generally granted to others in the permissive licenses described above. GCRLE supports and promotes policies that enable results and technologies to have the broadest reach and impact. Toward this end, all newly developed software should be made available through permissive open source licenses as described more fully above. Other technology and intellectual property rights (such as patents) should be made freely available for all academic and non-commercial use, and where intellectual property rights are commercialized, they should generally be subject to non-exclusive commercial licenses that enable broad availability and dissemination.
- International grantees must use all grant funds exclusively for activities conducted outside the United States of America.
- Applications selected through this process will be recommended for funding through the GCRLE grants distributed by the Buck Institute.

CONFIDENTIALITY

All submitted applications will be kept confidential, except (1) as necessary for our evaluation and selection process or to comply with any applicable laws; and (2) to the extent that the application is made public or

available to others without a duty of confidentiality through no fault of the Buck Institute or GCRLE. Notwithstanding, successfully funded proposals may be made publicly available and/or shared with other grantees or collaborators. Unfunded proposals will remain confidential as provided herein; however, information, including brief summaries of the proposed projects, project metrics, and the types of organizations who have applied for funding, may be made publicly available in aggregate form. Application materials will not be returned to applicants.

RFA CONTACT

For questions pertaining to this RFA, please contact gcrlegrants@buckinstitute.org