



ROBERT J. & NANCY D. CARNEY
INSTITUTE FOR BRAIN SCIENCE

BROWN UNIVERSITY

Zimmerman Innovation Awards in Brain Science

DEADLINE: SEPTEMBER 1, 2023

The Robert J. and Nancy D. Carney Institute for Brain Science announces a call for proposals for its Zimmerman Innovation Awards Program. **The purpose of these awards is to launch innovative projects that have great potential to advance science and benefit society in ways that have major and lasting impact. Projects that are too risky and early stage to be appropriate for NIH or similar funding mechanisms are strongly favored.** The Zimmerman Innovation Awards in Brain Science are not intended to merely allow collection of preliminary data for a subsequent grant proposal, but to catalyze progress on a project with a clear long-term intellectual arc to substantial and lasting impact. A primary goal of the program is to launch new projects that will continue at Brown beyond the term of the innovation award. The Carney Institute will invest up to \$100,000 per project for one year, renewable for a second year on a competitive basis. These awards are funded through multiple philanthropic gifts to the Carney Institute.

All areas of brain science research will be considered. In addition, a pool of funds is available to specifically support projects addressing Alzheimer's disease and related dementias (ADRD). ADRD proposals will be submitted through the same application process and may be reviewed by a separate review panel.

Eligibility

The Zimmerman Innovation Awards in Brain Science are open to all Brown faculty members conducting brain science research at Brown University or its affiliated hospitals. Principal Investigators (PI) must hold a faculty appointment (assistant, associate, or full professor) by the anticipated start date of the award. Any basic or translational research project that is within the Carney Institute mission is eligible for consideration. Collaborative interdisciplinary projects with more than one PI are encouraged but not required. A faculty member may participate as a PI on only one application and as a Collaborating Investigator on additional applications to this call for Innovation Awards in Brain Science. Existing award recipients may apply for a second year of funding, or may apply for a new Innovation Award in Brain Science if the existing one will conclude prior to the start of the new award.

The primary purpose of this program is to launch new projects that will be sustained at Brown, rather than to serve as a career development award. Therefore, students, postdoctoral fellows and non-faculty research staff (e.g., research associates and investigators) are not eligible to serve as PIs or co-PIs.

Award terms

The maximum allocation for each award will be \$100,000 with a one-year term. Awardees may compete for a second year of funding to continue the project. The anticipated start date is March 1, 2024.

Budget

Use of funds is restricted to expenditures required to complete the proposed project. Equipment purchases will be allowed, if well-justified and essential for the project to succeed. Typical allowable expenses include:

- Salaries for students, postdocs and/or research support personnel
- Supplies
- Core facility user fees
- Equipment

Funds cannot be used for:

- Faculty salaries
- Travel to scientific meetings
- Publication costs
- Invited speakers
- Entertainment
- Indirect costs

Junior investigator supplement

Projects involving one or more junior investigators (pre-tenure or, for non-tenure-track faculty, holding a faculty appointment for less than seven years at the time of submission) as PI/co-PI may request a \$32,000 supplement. Only a single \$32,000 supplement may be requested per proposal, regardless of the number of junior investigator co-PIs involved. The supplement is intended to provide the junior investigator with additional personnel effort on the project, however other uses may be requested.

Faculty roles

Applications must clearly indicate the roles for all faculty members participating in a proposed project.

Principal Investigator - Must hold a faculty rank (assistant, associate or full professor). The PI is responsible for the conduct of the proposed work, the allocation of award funds to support that work, and reporting on the outcome of the project. The PI directly supervises the research personnel executing the project.

Collaborating investigator - A faculty member participating in a project in a non-PI role. A collaborating investigator may provide intellectual input or access to equipment or research resources but will not be responsible for the conduct of the project or will not directly benefit from the outcome of the research. A collaborating investigator does not directly supervise researchers executing the project, determine allocation of award funding, or receive award funds to support personnel or research activities in their own laboratory.

Application process

Applications must include the following:

- [UFunds](#) Form - Complete all required fields in the application form.
- For documents with a page limit, please use a letter size (8.5" x 11") page layout and follow the NIH formatting guidelines for margins (at least 0.5") and [font](#) (at least 11pt, recommended fonts include Arial, Georgia, Helvetica, and Palatino Linotype).
- Cover letter - Include a letter signed by the PI/co-PIs, containing the title of the proposed project and a brief explanation of how it meets the goals of the Innovation Awards in Brain Science.
- Key Personnel - List all personnel who will make significant contributions to this project.
 - Faculty - Name, title, and departmental affiliation; indicate the faculty role (PI or collaborating investigator) for each
 - Non-faculty key personnel - Name, position, and departmental affiliation
- Biographical sketches - NIH or NSF style biosketches are required for the PI/co-PIs, Collaborating Investigator, and any other key personnel named in the proposal.
- Other support - List current and pending support for the PI/co-PIs, including any internal funding. If there is overlap between any funded projects and the proposed project for an Innovation Award, please provide justification for multiple sources of funding, and describe how each fund would be allocated.
- Project Aims - In one page, describe the project long-term goal and objectives for the 12-month project period. Summarize the impact, innovation, and feasibility of the project. The external review will consider only the Project Aims page, so this page must stand alone in making a compelling case for the project.
- Research Plan - Limited to four single-spaced pages:
 - Impact: Address the following points
 - What is the problem or critical barrier that you are addressing?
 - If successful, how will the proposed project impact the field and/or address a major need in society?
 - What is the long-term intellectual arc of the project? What is the path and timeline from idea to impact? Describe the plan to continue the research project at Brown beyond the period of the Innovation Award.
 - **For proposals to be considered for ADRD funding, this section must describe the relevance and impact of the research on Alzheimer's disease and related dementias. NIH definitions of ADRD-related research appear at the end of this document and will be used to determine whether a proposal is eligible for ADRD funding. Applicants may choose to link their project to specific [NIH Research Implementation Milestones](#) in order to further strengthen the case.**
 - Innovation: Address the following points
 - Describe how the project addresses a significant unanswered scientific question or societal need, in a novel way.
 - Describe how the concepts, tools and techniques, or other outcomes that would ultimately result from the project will have impact beyond a narrow specialized scientific field.

- Indicate if the project integrates knowledge or approaches from disparate fields in a novel way. If so, describe the specific innovation or value in bridging these fields. Describe any anticipated difficulties in challenging the status quo of those fields.
- Explain why this is high risk and address how you propose to manage the high risk aspects of the proposed work.
- Feasibility: Address the following points
 - What is your strategy, what methods will you apply, and what type of analyses will you use? How will you mitigate against experimental bias in design and analyses?
 - Describe the team that will conduct the project, and demonstrate that appropriate expertise and technical capability is available.
 - Provide a timeline and describe the feasibility of this 1 year project.
 - Summarize anticipated potential outcomes
 - Preliminary data may be included in any section of the research plan to demonstrate feasibility.
- Literature Cited - Limited to one page. Include only those publications that provide direct supporting evidence for the impact, innovation, and feasibility of the project.
- Research protections - IRB and IACUC approvals are not required at time of proposal submission but funding for approved projects will not be released until IRB or IACUC approvals are in place.
- Biosafety/Select Agents - Indicate Institutional Safety Committee approvals, if applicable.
- Budget: Itemize and include brief budget justifications. Justifications should clearly indicate how budget items are essential for meeting the project goals.
- Resources - Describe the facilities or other resources available to the PI/co-PIs to carry out the project. Only include the facilities directly required for the execution of this project.
- Letters of support:
 - Department Chair/Signing Official (required): please provide a letter from the department chair or affiliated hospital signing official indicating acknowledgement that the research will take place in the indicated location; that the funding, if awarded, does not incur indirect costs; and that the department/affiliated hospital agrees to provide administrative support for managing project personnel and local account management and spending.
 - *For applications that include a faculty member in a Collaborating Investigator role*: the Collaborating Investigator must provide a letter of support acknowledging their role in the project.
 - *For applications with a PI who has a research faculty appointment*: if the research faculty member's faculty sponsor is NOT a co-PI on the proposal, the research faculty member's faculty advisor/sponsor or department chair must provide a letter of support describing the commitment to research space for the research faculty PI and affirming that the PI will have independent authority to decide on allocation of resources on the Innovation Award.

- Other letters of support that strengthen the case for the feasibility of the project are welcome.

Application deadline

SEPTEMBER 1, 2023 (anticipated start by March 1, 2024). Applications will be submitted through [UFunds](#) (faculty logged in with their Brown account will be able to see the opportunity titled Zimmerman Innovation Awards in Brain Science). If you have any issues with the UFunds platform, please contact Ines Tomas Pereira at ines_tomas_pereira@brown.edu.

Evaluation Criteria

Responsive applications will be evaluated for overall scientific merit based on the following review criteria:

- Impact
- Innovation
- Feasibility

Review Process

The Carney Institute will convene an internal committee, as well as solicit input from an external committee of appropriate experts external to Brown. **The external committee will assess the innovation of proposals based on the one-page Project Aims.** For the general pool of applications, members of the Carney Scientific Advisory Board will provide this external review. For proposals in the ADRD pool, members of the external steering committee for the Center for Alzheimer's Disease Research will provide this external review.

The internal review committee will conduct a full review of each proposal. The internal committee will include members relevant to the areas of the proposals. Each application, however, will also be reviewed by reviewers outside the applicant(s) discipline. Applications should be prepared with this in mind, avoiding jargon when possible and providing appropriate context and details for the application to be evaluated by a reviewer not from the immediate sub-field. Applicants are encouraged to focus on making a compelling case for the impact, innovation and feasibility of the project, and to include technical details only to the extent that they demonstrate feasibility. **Innovation is a priority; applications deemed to have high impact and feasibility but low or moderate innovation will receive lower priority than applications with higher innovation.**

Reviewers will be asked to review and score each project according to the evaluation criteria, as well as provide an overall ranking. The internal committee will agree on a consensus rating for each proposal and make funding recommendations to the Carney Institute. The Carney Institute will consider the recommendations of the internal committee as well as the external reviews in making final funding decisions. Detailed written reviews will NOT be provided; for each application, the review committee will provide bullet points that summarize the strengths and weaknesses in how the applicant conveyed the impact, innovation, and feasibility of the project. The Carney Director will solicit input from the Carney Executive Committee as necessary and approve final funding decisions.

Midpoint review

PIs of funded projects will be asked to provide a brief interim report to the Carney Institute approximately 6 months into their project period. The purpose of this interim report is to confirm that the project remains feasible or that course corrections in the project plans have been made to continue progress. PIs should indicate in this report any anticipated need to request a no-cost extension for the project.

Questions?

Questions about the Innovation Awards in Brain Science program should be directed to John Davenport (John.Davenport@brown.edu), Director for Research Strategy of the Carney Institute.

Appendix - NIH Coding definitions for Alzheimer's disease and its related Dementias

Alzheimer's Disease: Includes Alzheimer's disease diagnosis, treatment, etiology, and prevention. Mild cognitive impairment research is perceived by experts as AD prevention research and should be included. Research using an AD population should be looked at closely and typically included.

Related Dementias: The National Plan to Address Alzheimer's Disease includes related dementias. It was decided at the category development session to include projects studying both Alzheimer's disease and other dementias. These include: Frontotemporal Dementia (FTD), Lewy Body Dementia, and Vascular Cognitive Impairment/Dementia. The dementias associated with Parkinson's disease and with Down syndrome are included too. Cognitive decline in aging is also relevant to the Alzheimer's Disease category.

Related Diseases: Other neurodegenerative diseases, such as Parkinson's Disease, are included when Alzheimer's disease is also being studied and when common pathways are described. Macular degeneration studies that describe a common pathway with Alzheimer's disease, such as amyloid beta, are included. Other neurologic diseases, such as Huntington's Disease, Major Depressive Disorder, Multiple Sclerosis, Parkinson's Disease, Batten Disease, Schizophrenia and AIDS Dementia, are not included unless also researching Alzheimer's.

Caregiving: Studies on family caregivers of Alzheimer's disease patients, as well as Alzheimer's care in nursing homes, are included. Research on caregiving should be included and treated broadly, even if Dementia-specific.

Basic Research: Basic research on neuropathology, cognitive decline, memory loss, amyloid, tau, Lewy Bodies, etc. is included, when a relationship to Alzheimer's disease is stated.