BRAIN & BEHAVIOR INSTITUTE
SEED GRANT PROGRAM
REQUEST FOR PROPOSALS – FALL 2024

OVERVIEW

The Brain and Behavior Institute (BBI) at the University of Maryland (UMD) advances neuroscience by fostering collaboration with diverse partner disciplines, developing cutting-edge tools and promoting the translation of basic science.

The BBI seed grant program promotes this mission by *cultivating new collaborations* among neuroscientists, engineers, computer scientists, mathematicians, physical scientists, cognitive scientists and humanities scholars.

To date, BBI seed grant investments have yielded an over 700% return in funding from government and private organizations, including the NIH BRAIN Initiative, National Institute on Aging, National Institute of Allergy and Infectious Diseases, National Institute on Deafness and Other Communication Disorders, National Center for Complementary and Integrative Health, National Institute for Mental Health, National Science Foundation, Air Force Office of Scientific Research, Brain and Behavior Research Foundation, AT&T, and Lieber Institute for Brain Development.

GUIDELINES FOR PROPOSALS

Proposals should involve *exploratory research* to collect pilot data necessary to compete for external funding by agencies such as NIH, NSF, DARPA, IARPA, etc.

Proposals should have a maximum budget of $100,000 for 12 months. However, priority will be given to proposals with smaller budgets, typically in the range of $50,000 to $70,000.

Proposals will be considered from five tracks. Priority will be given to Tracks 1-4 (few projects from Track 5 will be awarded this cycle).

Track 1: Computational and mathematical approaches
Projects that investigate large-scale brain systems, networks, multi-area interactions, within-area processing/computation (especially distributed processing), and related questions, especially in the context of brain-behavior relationships. Projects will be considered that employ mathematical, computational, statistical, and physics-based approaches. Projects aimed at collecting feasibility data will also be considered as long as a supporting mathematical approach is described.

Track 2: Artificial Intelligence
Projects that employ AI techniques to study any neuroscience area are welcome. These projects will be funded by a new partnership between the BBI and the Artificial Intelligence Interdisciplinary Institute at Maryland (AIM) and are intended to promote the integration of the BBI and AIM, as well as the AI community more broadly at UMD.

Track 3: Animal MRI
Projects that involve animal MRI and the Small Animal Magnetic Resonance Imaging Core. Any species and data acquisition using MRI will be considered.

Track 4: Genomics
Projects that involve research and the Advanced Genomic Technologies Core. Any species will be considered.

Track 5: Other. All other areas of brain and behavior research.

PI Eligibility

All proposals must be interdisciplinary with at least two Principal Investigators (PI), both of whom are tenured, tenure-track or professional track faculty at UMD. Having multiple PIs from the same department on the same application is discouraged. Individuals with postdoctoral titles are not eligible to be PIs but can be included in the proposal team. Outside collaborations (UMB, NIH, etc.) are allowed, but a non-UMD investigator cannot be a PI on a proposal, and no money can be awarded to support non-UMD investigators. Individual investigators may participate in up to two proposals, and if two proposals are awarded to one PI, the funding for each proposal will be administered separately.

STATEMENT OF INTENT

In order to assist in the recruitment of reviewers, all proposal teams are asked to provide a brief statement of intent prior to submission of a full proposal. Please send a 2-3 sentence summary of your proposal to bbiumd@umd.edu by **Friday, October 4, 2024**. Full proposals are due four weeks later on Friday, November 8, 2024.

SUBMISSION PROCESS

Final proposals should contain the following sections (in order):

1. Signed proposal cover sheet (see template)

2. Proposal (not to exceed four pages total)

    *   **Description of the project**, including specific subsections for *Significance, Innovation* and *Approach*. The impact of the proposed work must be clear to individuals both within and outside of your discipline. The length for this section is three pages.
    *   **The necessity of the collaboration** to achieve your goals, what each individual brings to the collaborative effort, and the history of collaboration between the PIs, if any.
    *   **The specific target** (funding mechanism and submission date) for a forthcoming proposal to an external funding agency. The proposal must describe how the BBI seed grant will enable the submission of your externally funded proposal.

3. Detailed budget and justification (see template)

4. Short bios of the PIs (two pages max per PI; any format)

FORMATTING

All text should be in single-spaced Arial 11-point font with one-inch margins. Please merge all documents into a single pdf named *PIsLastName_BBI2024SeedProposal*, and submit via the InfoReady portal. Late or incomplete submissions cannot be accepted. Questions regarding this call for proposals should be directed to bbiumd@umd.edu.

SELECTION CRITERIA AND DEADLINES

Seed grants are awarded on a competitive basis. Each proposal will be externally reviewed. Review criteria include: the significance and impact of the proposed experiments, the relevance of the proposed experiments to the BBI research foci of aging and development, the necessity and strength of the collaboration to achieve the proposal goal, and the likelihood of subsequent funding from external

sources. Applications from new collaborators and first-time PIs will receive priority over applicants who have received funding before.

Statement of Intent: Friday, October 4, 2024 at 11:59 p.m.

Proposal Deadline: Friday, November 8, 2022 at 11:59 p.m.

Selection Notification Date: Mid-December 2024

COVER PAGE

Title:

PI names and affiliations:

Total amount requested:

FINANCIAL AND REPORTING OBLIGATIONS

By signing, the PIs understand the conditions of the award (below).

CONDITIONS OF THE AWARD

Awardees are expected to participate in the BBI as Member Faculty as outlined on the BBI website. Awards are for one year, and funds must be spent within the year timeframe. The final scientific and financial report must account for and demonstrate how seed funds enabled the research. No-cost extensions are not offered.

Promoting the success of BBI seed grant teams is a central mission of the BBI; therefore, PIs agree to:
- Meet with the BBI proposal development team at least twice: once at the outset of the award (no later than four months after the award begins) and once in the middle of the award period (no later than 10 months after the award begins).
- Provide scientific progress report and a summary of expenses to the BBI at 13 months.
- Submit a proposal to at least one external funding agency within 18 months of receiving the seed funding, and provide information on the outcomes of the seed funding (e.g., grant funds, publications, conferences) annually.
- Present the team's results at the annual BBI symposium. All seed grant team members are expected to attend the symposium.

Eligibility for the next round of seed funding is contingent upon successful completion of the conditions above, including submission of a proposal for external funding. The BBI reserves the right to cut off seed funding to projects that show little to no progress. For the signatures requested below, an email from each PI's department chair and financial administrator acknowledging submission of this proposal is acceptable.

_____   _____   _____
PI   **Dept. Chair**   **Dept. Financial Admin.**

_____   _____   _____
PI   **Dept. Chair**   **Dept. Financial Admin.**

_____   _____   _____
PI   **Dept. Chair**   **Dept. Financial Admin.**

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PI   **Dept. Chair**   **Dept. Financial Admin.**

ESTIMATED BUDGET

Allowable Expenses: Research supplies; purchase or rental of equipment for new research; user fees for campus facilities; tuition; and direct salary and fringe based on current rate for a temporary position (1 year or less) for technicians, research associates, post-docs, and/or graduate students. Please draft your budget with guidance from departmental grants coordinator or financial administrator.

N.B. Only PIs who do not receive salary support from the University (i.e. are on soft funding) can include salary in the budget. In such cases, the requested PI salary should be capped at 10% of annual salary and be commensurate with effort (i.e., budget for effort and not exceed 10%). Please include detailed justification for any PI salary request, which are subject to review and approval by the BBI.

Unallowable Expenses: Salaries for PIs (see above), conference travel, administrative support, general telephone services and postage, alterations or renovations of laboratory space, purchase of laboratory or office furniture, purchase of periodicals and books, and dues and memberships in scientific societies.

Cost Categories	Description	Costs
Personnel (e.g. pre-doc, post-doc, lab staff, hourly)		
Personnel (e.g. pre-doc, post-doc, lab staff, hourly)		
Personnel (e.g. pre-doc, post-doc, lab staff, hourly)		
Personnel (e.g. pre-doc, post-doc, lab staff, hourly)		
Tuition		
Fringe benefits		
Equipment (must be well justified)		
Supplies		
Other (detail)		
Other (detail)		
Other (detail)		

Total of all Costs	

BUDGET JUSTIFICATION

Please provide a short justification for all budgeted cost categories above (i.e., Personnel, Tuition, Fringe, Equipment, Supplies, Other).