VBRN Exploratory Award

Purpose: The goal of the Exploratory Award is to 1) establish the feasibility of a research project and obtain preliminary data and/or 2) develop experiential education activities, including but not limited to Course-based Undergraduate Research Experiences (CUREs). Data obtained through this award may serve as a vehicle for subsequent VBRN or other grant proposals.

Project Duration: One year

Eligibility: Faculty members who are full-time tenure track as well as full-time or part-time non-tenure track at Vermont State University, Middle-bury College, Norwich University, or Saint Michael's College. Research must meet the mission of NIH. Clinical trials are not allowed. To determine whether the proposed study is a clinical trial, use the NIH decision tool. NIH funding doesn't preclude further VBRN support, but in our mission supporting early investigators with no NIH history is a priority.

NIH Mission: NIH is the steward of medical and behavioral research for the Nation. Its mission is to seek fundamental knowledge about the nature and behavior of living systems and the application of that knowledge to enhance health, lengthen life, and reduce illness and disability.

Funding Level and Allowable Expenses: Direct costs up to \$10,000 per year may be requested. Permitted expenses include PI salary for summer and/or academic year, technicians, supplies, small equipment, undergraduate wages, participant costs and conference travel. Use of the funds must be outlined and justified as part of the application.

Review of Applications: VBRN applications now receive their initial review from a Third party service (AIBS) that contracts with experts in the specific areas of the application to produce high quality reviews that address the scientific merit of each of the submitted proposals. These experts deliver reviews organized around the NIH review criteria and exhibit the depth characteristic of the review of an R15 application. The NIH 9-point rating scale is used for individual criteria and overall merit. Applications for Exploratory Awards that are devoted entirely to experiential education development will be reviewed separately by a special pool of selected reviewers with experience in experiential activity development, as opposed to a scientific specialty area. These reviewers will employ the 9-point NIH scale using slightly revised criteria. For example, we will include as a scored criterion an educational impact score to assess likelihood of a successful educational experience, as well as the impact on the parent institution.

When the third party reviews are returned to VBRN, they are reviewed by the VBRN Director and Program Coordinator to determine their suitability to funding, based on available resources, program strategic imperatives*, and BPI institutional impact. For applications based on CURE development, preference will be given to courses that engage larger numbers of students, are offered more often, or represent noon experiential education development, preference will be given to projects that engage larger numbers of students, are offered more often, or represent novel activities (as opposed to adoption of an existing experiential learning activities at the applicant's institution). The applications along with external reviews and Director recommendations are forwarded to our External Advisory Committee, who make their funding recommendations. Applications recommended for funding by this three-stage process are then submitted to the NIH, who issues final approval. NIH does not typically conduct its own independent review of the scientific merit; they typically are more concerned with budget and regulatory compliance issues. VBRN's goal is to fund as many Awards as possible, but fund only meritorious applications.

*VBRN will assess applications with respect to alignment with VBRN strategic objectives and mission. For this cycle we are particularly interested in applications that foster inter-institutional collaborations and include a data science component. NIGMS would like to see INBRE Programs encourage the utilization of large, publicly available datasets, e.g. phenotypes of human populations, in research by INBRE-supported faculty members

Exploratory Award Key Dates

Grant Writing Workshop Attendance DATE: September 29, 2023

To be eligible for 2023-2024 Exploratory Award funding, faculty must attend the VBRN Grant Writing Workshop on September 29, 2023. This event will be in person unless special arrangements are made in advance.

Letter of Intent DUE: November 1, 2023

Applicants must submit a Letter of Intent (LOI) to VBRN with a working title and key words by November 1, 2023. VBRN will distribute the LOI template to those who attended the Grant Writing Workshop.

Application Due Date DUE: January 12, 2024

Exploratory Award applications are submitted online via the VBRN application site, which will be accessible December 1, 2023. Funding decisions are made and communicated to applicants by the end of March 2024. Note, formatting must adhere to NIH standards as outlined on their website.

For the following application components, use the hyperlinked documents as provided. Please submit all documents in the PDF format, except for the Budget and Budget Justification, which should be submitted as Word documents.

All applicants must contact a federal Program Officer at an NIH Center or Institute to verify that the proposed research is fundable by the NIH. If this is a renewal application, the applicant's current science mentor must review the proposal before submission.

Application components include:

- Face Page (submit as PDF)
 - Must be signed by BPI Coordinator and institutional grants officials (boxes 12 and 13)
 - List direct costs only (boxes 7a and 8a)
 - List total costs (including Facilities and Administrative costs, boxes 7b and 8b)

- Include eRA Commons User Name (box 3h)
- · Include NIH Center or Institute for the Research and the Name of a Program Officer
- Project Summary and Relevance (submit as PDF)
 - eRA Commons ID required for all senior/key personnel
- Budget (submit one document for each year of the award, and both as Word documents)

(Not to exceed one page)

- · List direct costs only
- · Fill in the total amount for Facilities and Administrative costs
- · Must be reviewed by the BPI Coordinator
- Budget Justification (submit as Word document)

(Not to exceed three pages)

- · Must be reviewed by the BPI Coordinator
- Research Plan (submit the following as three separate PDFs in the linked form)

(Not to exceed 4 pages, or 6 pages if applying for a renewal - note, renewal applications will only be accepted with prior approval by the Director)

- Specific Aims (not to exceed one page)
- · Research Strategy (not to exceed 3 pages)
 - Research Strategy literature cited (excluding Progress Report Literature Cited which is submitted separately below) must be submitted on this form (G.220 R&R Other Project Information Form).
 - For Exploratory Awards focused on developing experiential education projects, frame the Research Strategy around designing experiments that can be performed by students during the specified time, e.g., class lab period.
 - If this is a renewal application, a required Progress Report (not to exceed two pages) must be included in the page limits for the Research Strategy.
- · For applications focused on experiential learning development, please do the following:
 - Ensure that you describe the experimental system and problem to which the experiential activity will be applied. Document the feasibility of breaking that question into readily designable modules that are amenable to exploration within the boundaries of student technical expertise, time, and available resources.
 - · Include plans for evaluation and dissemination.
 - Include a letter of support from an academic Department Chair or Dean indicating that the home institution will sustain the experiential activity, if found to be effective, to the same degree as other courses.
- A Data Management and Sharing (DMS) Plan will be collected in the field called "Other Plans" on the PHS 398 Research Plan. See Writing a DMS Plan for the details on what to include in a Plan: https://sharing.nih.gov/data-management-and-sharing-policy/planning-and-budgeting-for-data-management-and-sharing-plan
 - Note, any costs to support data management and sharing should be accounted for in the PHS 398 Modular Budget Form along with
 a brief justification of those costs. See Budgeting for DMS (https://sharing.nih.gov/data-management-and-sharing/budgeting-for-data-management-sharing).
- Progress Report (only) Literature Cited (as many pages as needed)
- Research Resources and Environment (submit as PDF)
- Biosketch (submit as PDF)
 - · Submit for all senior/key personnel and other significant contributors
 - · Not to exceed 5 pages per person
 - If the Exploratory Award application features multiple PIs, include a Biosketch for each PI. Your Research Strategy should include a section with the heading "Multiple PI Management Plan" that describes the roles, responsibilities, and procedures for resolving disputes/differences for the members of the team.
- For human subjects research, IRB approval*
 - PHS Human Subjects and Clinical Trials Information Form (note, human subjects research is permitted, however clinical trials are no longer supported)
 - Institutional IRB approval letter (with specified dates for which the research is approved)
 - · The approved IRB research protocol
 - · Current Human Subjects education certification for all key personnel

(Note, NIH no longer offers a course on Protecting Human Research Participants. Those seeking to fulfill the requirement for education in the protection of human research can complete the <u>Human Research Protection Training offered by the HHS Office for Human Research Protections (OHRP)</u>.

- If applicable, complete Institutional Animal Care and Use Committee(s) (IACUC) approvals*
 - Institutional IACUC approval letter (with specified dates for which the research is approved)
 - The approved IACUC research protocol

- Vertebrate Animals Section
- Supporting documents (as applicable; e.g. Letters of Support, Equipment Quotes, etc.)

*IRB and IACUC approvals must be submitted with the application by the due date. A proposal will not be reviewed with a pending status. If the institutional approval expires over the duration of the one-year award, the PI is responsible for sending an updated approval letter.

Funding Period: June 1, 2024-May 31, 2025

Funding of awards is contingent upon NIH approval. Award funds must be spent in the award period; carryover of funds is not allowed.

Exploratory Award Conditions

Completion of the following:

- Individual Development Plan (IDP) due September 1, 2024.
- Two telephone discussions of the IDP with the VBRN Director, the VBRN Program Coordinator, and the BPI Coordinator. These conversations are planned for September 2024 and May 2025.
- · Annual VBRN survey and periodic VBRN longitudinal surveys.
- Research Performance Progress Report (RPPR).
- · VBRN Student Application for each student funded by VBRN prior to their start time in your research program.
- Submit a draft manuscript (minimally Methods and Results sections) with revisions recommended by your science mentor based on VBRN-funded research by June 1, 2024.

Attendance at the following:

- · Annual VBRN Faculty Retreat in Summer 2024 and 2025.
- · VBRN Professional Development Seminar in Winter 2025.
- Annual VBRN Career Day for students in April 2025.

Any work resulting from this Award must acknowledge VBRN as a source of funding, details of which can be found on the VBRN website and in the faculty handbook. All publications from VBRN funded research are required to meet the NIH public access policy outlined in the Faculty Handbook.