

EMERGING CHALLENGES in BIOMEDICAL RESEARCH (ECBR) Basic Science Discovery Research

Request for Applications (RFA) – Deadline **October 3, 2022**

The UNC **School of Medicine's Office of Research (OoR)** sponsors an annual pilot program, *Emerging Challenges in Biomedical Research (ECBR)*, to provide support for innovative, early-stage research relevant to external strategic funding priorities.

The Fall 2022 round of funding is focused on recognizing the importance and impact of fundamental research by supporting interdisciplinary, technology-focused, basic science research that can lead to new discoveries or technologies.

Awards will provide up to \$50,000 in funding for a 12-month project period.

I. Purpose

Basic science research leads to the understanding of living systems and life processes at a mechanistic level, and provides the critical foundational knowledge necessary to develop new drugs, reduce disease, and create cutting-edge technology that enhances public health and the quality of life for all humanity. In 2016, the NIH Institute and Center Directors, including the NIH Director Francis Collins, signed a letter to the editor of *Science* titled "[Basic Science: Bedrock of Progress](#)" reiterating NIH's commitment to basic science funding and recognizing the life-changing and breakthrough findings that have resulted from basic science research.

The 2022 ECBR pilot program will provide seed funding for discovery basic research projects that can be completed within 12 months and have strong potential to inform subsequent grant applications to the NIH or other external funding agencies.

All new basic science research proposals are welcome, and we encourage new projects and ideas from new cross-cutting teams in areas that are not yet supported on campus. Direct translational impact is not required, though some disease relevance should be apparent. The lead PIs on the proposal should all be from the **UNC School of Medicine**, and PI representation across scientific disciplines is encouraged. Because cardiovascular disease is a leading cause of death globally and the UNC School of Medicine is home to high caliber cardiovascular researchers exploring the basic mechanisms underlying cardiovascular health and disease, projects with a cardiovascular focus are particularly encouraged for this cycle.

II. Key Dates

Proposals Due	October 3, 2022
Review and Award Decision	Within 9 weeks of application deadline

III. Funding and PI Eligibility

The OoR plans to fund up to 3 pilot awards of up to \$50,000/ award for a 12-month project period. The team should include at least two PIs. Because SOM F&A funds are being used to support this RFA, this funding opportunity is open to faculty with primary appointments in the SOM or faculty whose grants are administered by the SOM (i.e. lead PIs should be SOM). Teams with PI representation from multiple scientific disciplines are highly encouraged to apply.

One PI must serve as the main contact PI, with primary responsibility for the administrative aspects of the pilot award.

Researchers whose appointments allow them to serve as PI on externally sponsored research projects are eligible to apply as PI. This generally means permanent faculty (not adjunct appointments) and includes those with non-faculty appointments like “research scientist” and investigators from research institutes and centers who are eligible to apply for investigator-initiated awards and R01-level funding.

The funds are not meant as a supplement or bridge to an existing funded project. The proposed project should represent a new project and not significantly overlap with the aims of existing funding (external or internal awards). This must be **clearly evident** in the application. The supported project is expected to lead to submission of novel interdisciplinary program project grants and multiple PI R01s to ultimately improve human health by UNC SOM and Medical Center investigators.

Funds cannot be subcontracted to other institutions.

V. Review Criteria

Applications should be presented in a clear and logical fashion, make a convincing case for the significance of the work, and describe the proposed methods in sufficient detail so that an adequate evaluation of the application can be made.

The primary review criterion is that the pilot work has the potential to lead directly to a fundable external proposal for basic science research, written and led by the pilot study PI(s), and submitted within a year following completion of the pilot project. Preliminary data are not required for the pilot proposal, but some specific evidence that the work has merit scientifically and that the proposed effort is feasible within the timeframe and funding level of the pilot program is required. It is strongly encouraged that the pilot proposal includes specific plans regarding the proposal for external funding following the pilot work.

The following additional review criteria will be considered:

1. Relevance of the proposed study to basic mechanistic biology and connection to human disease
2. Significance of the work
3. Novelty/innovation of the research idea

4. Strength of the proposed team
5. Soundness of the proposed methods
6. Feasibility of accomplishing the stated project goals within the 12-month study period
7. Potential for the project to lead to future external funding, particularly larger funding mechanisms

VI. Application Process

Applications must be submitted electronically as a single pdf. All components below should be included in the pdf application in the order listed below and emailed to oor_submissions@med.unc.edu by the submission deadline.

1. **Scientific Abstract:** A summary of the application for internal use (250 word maximum).
2. **Impact:** Briefly describe the likelihood for your project to exert a sustained, powerful influence on the research field(s) involved (50 word maximum).
3. **Research Plan:** The Research Plan should include Specific Aims, Significance, Innovation, and Approach. For studies enrolling human subjects, include engagement and recruitment plans either in this section or in the Human Subjects section (number 7 below). Include where applicable clear evidence of how the application meets the review criteria. 1.5 line spacing, font Arial 11 pt., and 1-inch margins all around. (5 page limit, including tables and figures. References do not count towards the page limit.)
4. **Cited References:** (No page limit)
5. **Budget:** Use [PHS 398 Form Page 4](#) (see Section VIII “Budget Guidelines” below for more details). The total budget should not exceed \$50,000.
6. **Budget Justification:** Include sufficient detail for reviewers to assess whether appropriate resources have been requested (see “Budget Guidelines” below). (No page limit)
7. **Timeline:** covering the 12-month funding period.
8. **Human and/or Animal Subjects:** Although Institutional Review Board (IRB) and/or Institutional Animal Care & Use Committee (IACUC) approval is not required at time of submission, the application should briefly describe any human and/or animal subject issues. If human subjects will be involved in the research, provide a description of their involvement and characteristics, study procedures, materials used in the research, potential risks to subjects, the process for recruitment and informed consent, and protection against risks. Provide assurance that the project will be reviewed and approved by an IRB, use a single IRB if the project is multicenter, and comply with HIPAA. If vertebrate animals will be used, provide a description of the proposed use of the animals in the work outlined and procedures for ensuring that discomfort, distress, pain and injury will be limited. Provide assurance that the project will be reviewed and approved by an IACUC. Note that no funds will be released without the requisite approvals in place. (No page limit)
9. **NIH Biosketches:** for the key personnel of the research team.
10. **Other Support:** for the key personnel of the research team. Include all internal and external funding sources.
11. **Letters of Collaboration** (if applicable): Letters of Collaboration may be included if they clearly state a commitment of resources required for the project’s success, for example biobank samples being made available to the investigator. Generic or non-specific letters of support are not required or encouraged. (No page limit)

VII. Budget Guidelines

1. The pilot grant budget covers expenditures of up to \$50,000 for a 12-month period. The budget

period will begin when applicable IRB/IACUC documentation is provided and the PI indicates everything is in place for the project to begin. If the PI is not ready to start within 4 months of notification of funding, the SOM reserves the right to withdraw the award. The expectation is that all funds will be expended by the end of the grant period.

2. Projects of all budget sizes up to \$50,000 are encouraged. Budget should be appropriately matched to the scope of the project.
3. Pilot grant funds may be budgeted for (1) research support personnel, (2) travel necessary to perform the research, (3) equipment, research supplies and core lab costs, or (4) other purposes deemed necessary for the successful execution of the proposed project.
4. Pilot grant funds **may not be budgeted for** (1) salary support for the PI or faculty collaborators, (2) office supplies or communication costs, (3) meals or travel, including to conferences, except as required to collect data, (4) UNC-CH IRB fees, (5) professional education or training, (6) manuscript preparation and submission, or (7) indirect costs.
5. Expenditures for services outside of UNC-CH will only be allowed if the equivalent service is not available in-house, and such an expenditure will require thorough justification.

VIII. Other Guidelines

1. Prior to receiving funds, research involving human subjects must have appropriate approvals from the UNC-CH IRB, and research involving animals must have the appropriate IACUC approval. Either an IRB approval letter or an IRB response to a “Determination Whether Research or Similar Activities Require IRB Approval” must be provided. Human subjects or animal research must be reviewed in accordance with the university’s general assurances and HIPAA.
2. A final progress report is required one month following the completion of the project. The PI must report the outcomes achieved due to the pilot award for five years after completion of the work, e.g., subsequent external funding, publications, presentations and patents, and to acknowledge SOM ECBR pilot funding support where appropriate.
3. If an awardee leaves their position at UNC, they should contact OoR to initiate close-out procedures.

IX. Submission Instructions

Applications should be emailed to oor_submissions@med.unc.edu and are due by **5:00pm on October 3, 2022**. After submitting the application, applicants will receive email confirmation that the application was received. Applicants should be notified by email within 9 weeks of the deadline whether their application has been selected for funding.