

# Request for Applications

## COBRE: Nebraska Center for Nanomedicine (NCN)

### Pilot Project Grants

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#### Key Dates

**Release Date:** December 15, 2021

**Submission deadline:** February 15, 2022

**Anticipated Start Date:** July 01, 2022 (pending review, NIH and all regulatory approvals)

#### Summary

- The Center of Biomedical Research Excellence (COBRE) Nebraska Center for Nanomedicine (NCN) invites investigators at the University of Nebraska to submit an application for pilot research projects consistent with the research objective of this Center. The principal intent of the announced Pilot Project Program is to provide support to the most promising and novel nanomedicine-related research projects and help investigators obtain preliminary data necessary for successful grant applications to external agencies.

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### 1. Research Objectives

The long-term goal of NCN is to enable advances in basic and applied nanotechnology research for the development of novel therapies and diagnostic modalities to combat human diseases. The goal of the Pilot Project Program is to promote interdisciplinary research at both the basic and translational level in the broad and interdisciplinary field of nanomedicine including but not limited to biopharmaceutical engineering, delivery and pharmacokinetics of nanomedicines; imaging; diagnostics; improved therapeutics and vaccines, innovative biomaterials, regenerative medicine, interactions of nanomaterials with cells, tissues, and living organisms. Our intention is to stimulate multidisciplinary collaborative interactions and provide research opportunities for innovative, highly competitive meritorious projects with high likelihood for garnering extramural research support. The investigators are strongly encouraged to incorporate experimental approaches that utilize NCN-supported Bioimaging and Nanomaterial Characterization core facilities.

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### 2. Scope of the Projects

The applications are solicited from individual investigators or teams of investigators in two major categories:

**Forward-Path pilots** (up to \$10,000) to generate critical preliminary data for a planned submission/resubmission of an extramural grant application within 6 months. Special consideration will be given to applications supporting resubmissions that generate new data in response to prior review. Investigators are required to submit their summary statement and responsiveness will be evaluated. These awards can be used only for materials, supplies and operational expenses. No personnel support is allowed.

**Discovery Path pilots** (up to \$50,000) will provide strategic support for individual investigators or collaborating research teams to explore the feasibility of projects that might become R01 proposals. These types of pilot projects will provide initial support for early-stage investigators to establish research in nanomedicine and allow established investigators to explore innovative new directions that represent a significant departure from their ongoing funded research.

### 3. Funds Available and Allowed Expenses

- A total of up to \$225,000 funding will be available for this RFA.
- The funding will be available for the period from July 01, 2022 to May 31, 2023. Carry forward is not allowed. The Center Administrator will set up spending accounts.
- The applicants may request a budget for direct costs that may include funds for supplies, core facilities fees and other appropriate costs directly related to the project. Faculty salary support is not allowed. Travel costs are not supported except those essential to perform the proposed research.

### 4. Eligibility and Requirements

- Eligible investigators must be full-time faculty members with tenure/or tenure-track that would qualify the applicant to independently apply for Federal or non-Federal investigator-initiated peer-reviewed research project grants.
- All past and current NCN investigators and mentors at any of the collaborating NCN institutions are eligible.
- Individuals with transient commitments to their institutions or transient commitments from their institutions will not be eligible. Visiting professors, investigators holding postdoctoral fellowships or other positions that lack independent status will be excluded as well.
- In line with the COBRE NCN mission, priority will be given to applications from junior investigators and the collaborative teams of junior and senior investigators within the NCN. For the purpose of eligibility a junior investigator is defined as those who have been in a tenure-leading position for less than five years and who have not yet acquired NIH funding or other similar external funding as an independent scientist.
- In any given funding cycle, an investigator will be limited to one application in each pilot project category as PI or co-PI.
- We will consider the applications seeking support for projects that already have seed grant support from other sources (e.g. departmental seed grants, Nebraska research initiatives funds etc.). However, the applicants must provide clear justification how the additional pilot funding will increase likelihood for garnering extramural research support.
- It is our intention to fund innovative, highly competitive meritorious projects with high likelihood for garnering extramural research support.
- Projects involving collaborations with clinical investigators or projects with clear clinical application will be given priority.
- We expect that applicants will submit a proposal to an external agency within one year of completing a pilot grant. As a part of the application process, we will ask investigators to state what external agencies are targeted for funding and outline a reasonable strategy

for submitting proposals that utilize and build on the data they are obtaining with pilot grant support.

- Regulatory body approvals if applicable need not be completed prior to submission, but a formal approval letter will be required before final funding is provided.
- Investigators who are supported via the Pilot Projects Program will be required to summarize their progress and their plans for the future by formally presenting their research at the monthly meeting of the NCN.
- During the funding period, we will require that principal investigators provide the NCN with a semi-annual progress report as well as a final report that is sent to the NCN no later than 15 days before the end of pilot grant support.

## 5. Content and Form of Application Submission

NCN Pilot Project Program application should include the following:

1. NIH Face Page (download and complete Form page 1 from <https://grants.nih.gov/grants/funding/phs398/phs398.html> )
2. NIH format Biosketch for applicant and other key personnel
3. Other Support document for each investigator. Other Support provides information on current and pending funding items.
4. Abstract
5. Research Plan (**five (5) page** limit) that includes the Specific Aim(s), Significance, Innovation, Experimental Design Section, and clear plans stating when grant applications will be submitted and to what agency on the subject of pilot project. Preliminary data are not required but their inclusion will be considered a strength.
6. Applicants should include a discussion of Human Subjects; Animal Welfare; Select Agent Research (if applicable) and Literature Cited (not part of the 5 pages).
7. Regulatory approvals (IACUC or IRB protocol numbers, if applicable) are required before funds can be released. While approval is not required at time of application, submission for approval is strongly recommended to avoid delays in timely beginning of projects.
8. Budget (download and complete Form 4 from <https://grants.nih.gov/grants/funding/phs398/phs398.html> )
9. Detailed Budget Justification

The proposals should use Arial font 11, margins must be at least 1/2 inch on all sides, and font color should be black. Color images may be included, but please compress image files. Applicants are strongly urged to be succinct. As necessary, letters of commitment from collaborators and/or consultants can be included. Appendices will not be accepted.

## 6. Submission Dates and Times

Please direct all questions to David Oupicky, [david.oupicky@unmc.edu](mailto:david.oupicky@unmc.edu) or 559-9363 or Dong Wang, [dwang@unmc.edu](mailto:dwang@unmc.edu) or 402-559-1995. All applications must be submitted as a combined PDF file via email to Tammy Slachetka ([tammy.slachetka@unmc.edu](mailto:tammy.slachetka@unmc.edu)) no later than **4:00 PM, February 15, 2022**.

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## **7. Review and Selection Process**

The proposals will be reviewed by members of NCN Scientific Council and scored according to the NIH scoring system. The following will be considered in project ranking:

- Scientific merit of the proposed project as determined by peer review
- Innovation (and/or high-risk/high-reward)
- The overall impact of the proposals in the context of the programmatic goals of the Center
- Potential for future funding. The investigators' track-record of conversion of pilot funding into external grant awards, and junior investigator status will be considered
- Utilization of NCN-sponsored facilities (Bioimaging and Nanomaterial Characterization)
- Availability of funds

The proposals scored over the high and moderate priority ranges will be then sent for review and final recommendation for funding to the members of the NCN External Advisory Committee.

As in the past for internal review mechanisms such as this, we will not be providing detailed critiques of proposals that are not recommended for funding.

## **8. Anticipated Award Date**

July 01, 2022