

NCI Pre-Application

Instructions

The pre-application is open to all UNC System faculty and can be submitted by the University Sponsored Programs Office and/or the lead PI. Completion of the pre-application does not guarantee program funding.

Pre-application information is used to screen applications to ensure they meet the basic criteria to be eligible for NCI grant funding. Pre-applications that meet the established criteria and are determined to be the most competitive will be invited for a full-application. The full-application builds upon the pre-application, as most information will be gathered in the pre-application and applicants will have an opportunity to update any information as needed before submitting the full-application. Awards can be funded for up to two years in duration and will be milestone driven.

To learn more about NCI's grant program visit www.ncinnovation.org/grants or download the RFP to review the guidelines, process and eligibility information.

Basic Information

Full Name of PI:

Title of PI:

Affiliated University of PI:

County:

PI Email:

PI Phone:

College and Department:

Associated Website:

Industry Sector

NCI is committed to remaining industry agnostic and accepts applications from all technology sectors. The purpose of this question is to select and assign reviewers with industry knowledge and expertise.

Please indicate the relevant field or industry in which this research is associated with.

Advanced Manufacturing	AgTech	Biohealth	Computing & Informatics
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Defense Innovation	Energy Transition & Electrification	Other:	
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If other, please indicate which field/industry your research is associated with if it is not included in the options above (e.g., environmental science, material science, edtech, health tech, or aerospace).

Project Status (correlates to supplemental information)

Have you discussed this project with your NCIInnovation Regional Director?

- Yes
- No

Have you disclosed this project to your university technology transfer office/staff?

- Yes
- No

Have you previously applied for an NCI grant?

- Yes
- No

If “yes” to the above, please enter the project ID

If “yes” to the above, have you completed all pre-requisites to re-apply (e.g., made suggested revisions, participated in workshop, included industry partners)?

- Yes
- No

If “yes” to the above, please list the pre-requisites completed and upload any supporting documentation.

Have you or the university filed for IP protection, including a patent application, copyright, or any other IP protections related to this project?

- Yes
- No

If “No” to the above, is the work completed being treated as a trade secret?

If “yes” to the above, has this IP already been licensed by another entity or is the IP shared with any other university?

- Yes

- No

Is the IP jointly managed? If so, which organization is the lead?

If “yes” to the above, please indicate the name of the organization(s)

Have you participated in an NSF I-Corps or other customer discovery program (e.g., NSF Mid-Atlantic Hub, NC Biotech Center)?

- Yes
- No

If “yes” to the above, please indicate the name of the program(s)

Timeline of Project

- 1-year
- 2-year
- Other (please describe)

Significance

Market-Problem

Please identify the societal or market need that the project addresses. Include any relevant information/data points that estimate or quantify the potential market-size and/or demand. Who is the target customer, what market is the technology addressing, and what specific problem is the technology solving?

Value Proposition

Briefly state the unique value the proposed technology, product, or service provides to its target market, and how it differentiates from existing solutions.

Innovation

Describe the type of innovation proposed and the expected mode of delivery to end users (e.g., new material, chemical, prescription product, consumer product, software, service).

Team, Collaborators and Infrastructure

University-Associated Researchers

Please upload a biosketch document (in accordance with the supplied biosketch template) that includes the full names, email addresses, titles, experience, qualifications and expertise for those directly involved in the project.

Resources

Describe the support and infrastructure that is available to the team through the lead university, partners, or other sources. Identify support that could potentially be leveraged from other regions of the state if needed, if that support is necessary but prohibitively expensive or unavailable currently.

University Collaboration

Please indicate the universities which your research or project is currently collaborating with and include any universities which the project may contract as a subaward. If you are not directly collaborating with another university, please select "N/A".

If Other, please indicate which university your research is associated with if it is not included in the options above.

Non-University Collaborators

Applicants are encouraged to engage with non-university collaborators, including industry experts, government agencies, and community partners, to strengthen their project proposal. Please include a list of key personnel (name, title, affiliation, email) for individuals your project is currently collaborating with outside of the university (e.g., consultants, industry experts, etc.)

Potential Collaborators & Opportunities for Collaboration

Please include potential opportunities or interest for collaboration from other NC system universities, organizations, industry partners, government agencies and/or military/defense organizations, etc.

Technology Readiness Level

Please use the table below to categorize the project based on its current status and provide a brief explanation for the ranking as well as the anticipated status at the conclusion of this project (if funded). If you do not feel that you are able to rank the TRL for your project, please have a conversation with the regional director of your area before submitting your application.

Technology readiness level (TRL)	Description
1 Basic principles observed and reported	Lowest level of technology readiness. Scientific research begins to be translated into applied research and development. Examples include paper studies of a technology's basic properties.
2 Technology concept and/or application formulated	Invention begins. Once basic principles are observed, practical applications can be invented. Applications are speculative, and there may be no proof or detailed analysis to support the assumptions. Examples are limited to analytic studies.
3 Analytical and experimental critical function and/or characteristic proof of concept	Active research and development is initiated. This includes analytical studies and laboratory studies to physically validate the analytical predictions of separate elements of the technology. Examples include components that are not yet integrated or representative.
4 Component and/or breadboard validation in laboratory environment	Basic technological components are integrated to establish that they will work together. This is relatively low fidelity compared with the eventual system. Examples include integration of ad hoc hardware in the laboratory.
5 Component and/or breadboard validation in relevant environment	Fidelity of breadboard technology increases significantly. The basic technological components are integrated with reasonably realistic supporting elements so they can be tested in a simulated environment. Examples include high fidelity laboratory integration of components.
6 System/subsystem model or prototype demonstration in a relevant environment	Representative model or prototype system, which is well beyond that of TRL 5, is tested in its relevant environment. Represents a major step up in a technology's demonstrated readiness. Examples include testing a prototype in a high-fidelity laboratory environment or in a simulated operational environment.
7 System prototype demonstration in an operational environment	Prototype near or at planned operational system. Represents a major step up from TRL 6 by requirement demonstration of an actual system prototype in an operational environment (e.g., in an aircraft, a vehicle, or space).
8 Actual system completed and qualified through test and demonstration	Technology has been proven to work in its final form and under expected conditions. In almost all cases, this TRL represents the end of true system development. Examples include developmental test and evaluation of the system in its intended weapon system to determine if it meets design specifications.
9 Actual system proven through successful mission operations	Actual application of the technology in its final form and under mission conditions, such as those encountered in operational test and evaluation. Examples include using the system under operational mission conditions.

Potential Impact

Regional Alignment

Please discuss ways the region is advantageous for this project and how the project aligns with the capabilities, strengths and goals of the university, community and region.

Potential Benefits to Region

Indicate the potential impact of your project to include the socioeconomic potential and value added to the region. Include the anticipated regional economic development outcomes (e.g., IP development, company creation, job creation, etc.) and other regional benefits (e.g., research advances, societal benefits) of the project? Any foreseen barriers to the Region valuing this investment?

Scale of Benefit

To what scale does the proposed technology benefit society if successful (e.g., statewide, globally, etc.) and in what way?

Commercialization Potential/Pathway

Market-Fit/Customer Discovery

Please use the space below to tell us about any relevant market-place studies and/or customer discovery activities that you or a third party have conducted to assess your research in connection with industry. If none, please enter "NA".

Competitive Landscape

Identify competitors in the space and describe the differentiation and/or relationship to the proposed product/solution/technology. List any insights from customer discovery.

Commercialization Pathway

Describe the key steps in your pathway to market, potential of the project for commercialization, and any foreseeable technical or market challenges and how you plan to address them. Please include all compliance and/or regulations that would require third-party or governmental approval.

Risk

Describe any significant potential technical and market risks that you anticipate may arise for your idea and how the team will address them. Address any risks associated with the execution of the commercialization plan.

Industry Partners

Please use the space below to list any current and/or identified potential industry partners regarding the research and its commercial applicability, as well as if there has been any engagement to date and if so, in what capacity. Please enter "N/A" if industry partners have not yet been identified for this project.

Funding & Infrastructure

Funding Received

What level of funding (please provide sources and amounts) have you already received for this project over the past three years? Include a brief summary of how the funds were used. If this does not apply, please write "N/A".

NCI Funding Request & Allocation

What level of funding are you seeking from NCI? Further justification will be requested in the full application.

- < \$100,000
- \$100,00 - \$250,000
- \$250,000 - \$500,000
- \$500,000 - \$750,000
- \$750,000 - \$1 M
- > \$1M

Infrastructure Needs

Please select the top three support services relevant to your project.

Grant Writing	Legal Counsel	Innovation & Entrepreneurship Programs	Market Fit Research/ Customer Discovery
Patent Landscaping	Technical Validation	Grants Administration	Project Management

Other: (Please specify)

Additional Funding

What funding opportunities have you considered and/or intend to pursue to further the project outside of or in addition to NCI?

END OF PRE-APPLICATION

