



**THE
UNIVERSITY OF
NORTH CAROLINA
SYSTEM**

**THE UNIVERSITY OF NORTH CAROLINA SYSTEM
INTER-INSTITUTIONAL PLANNING GRANT
REQUEST FOR PROPOSALS**

February 23, 2018

University of North Carolina System
Chapel Hill, North Carolina

UNC SYSTEM IPG REQUEST FOR PROPOSALS

Introduction

Research and scholarship that capitalize on inter-institutional and/or interdisciplinary strengths are often touted as the best way to approach a variety of complex issues. However, this type of collaborative work is often challenging for a variety of reasons, including difficulties with communication, disciplinary cultural barriers, the additional coordination time required to facilitate interactions among distant institutions, and the additional time required for building consensus and learning new methods.¹ The UNC System includes a diverse set of universities with a wide range of expertise in research and scholarship. A careful and intentional effort to increase collaboration among UNC Institutions will help the UNC System realize its full research potential.

Although collaborative research efforts face a variety of challenges as defined above, work by Cummings and Kiesler indicates that when collaborators have worked together previously, they are more likely to collaborate again.² In fact, prior experience working together was found to reduce barriers to collaboration caused by both geographic distance and by differences in disciplines and even helped mitigate the barriers caused by a combination of distance and differences in disciplines. Thus, the Inter-institutional Planning Grant (IPG) Program is a focused effort to facilitate new collaborative research efforts to enhance UNC System's competitiveness for external funding.

Higher education institutions can support interdisciplinary work in a variety of ways, including recruiting more diverse (underrepresented minorities and females) faculty including individuals with non-traditional academic backgrounds, (e.g., individuals with experience in government or the private sector), implementing policies (e.g., tenure and promotion policies) that reward collaboration, and implementing funding mechanisms that support inter-institutional and interdisciplinary research.^{3 4}

The UNC System Office is pleased continue the UNC System Inter-institutional Planning Grant (IPG) Program for FY19, an initiative designed to promote collaboration among UNC Institutions (particularly between larger and smaller institutions) and across disciplinary boundaries. The goal of IPG is to incentivize stronger collaborative relationships within the UNC System, and to increase the System's competitiveness in attracting external funds. An IPG is a one-time award to initiate a collaborative team effort, with the expectation that the team will use the funding period to position itself to obtain external funding to support future activities related to the project. There are a variety of resources available to provide guidance regarding the development of a well-structured team. These include the [Team Science](#)

¹ National Academies, C.o.S. Engineering and Public Policy, *Facilitating Interdisciplinary Research*, National Academies Press: Washington, DC, 2005.

² Cummings, JN; Kiesler, S. In *Proceedings of the 2008 ACM Conference on Computer Supported Cooperative Work*, ACM: New York, 2008; p. 437-446.

³ Rijnsoever, FJ; Hessels, LK. Who Collaborates Successfully? Prior Experience Reduces Collaboration Barriers in Distributed Interdisciplinary Research. *Research Policy*, 2011, 40, 463-472.

⁴ Guimerà R, Uzzi B, Spiro J, Nunes Amaral LA. Team Assembly Mechanisms Determine Collaboration Network Structure and Team Performance. *Science (New York, NY)*. 2005;308(5722):697-702. doi:10.1126/science.1106340.

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[Toolkit](#), the [Science of Team Science](#) conference and website, and a rich knowledgebase in the literature (see, e.g., references 5-6).^{5,6,7}

Priority research areas eligible for funding include health sciences; agriculture; water and the environment; advanced manufacturing; marine and coastal sciences; defense, military, and security; pharmacoengineering; energy; and data science. Research projects in the humanities and social sciences are also welcome but are most likely best suited for Stage 1 awards (see below). We encourage proposals that involve collaboration between STEM and non-STEM fields (e.g., a collaboration that spans education and water and the environment).

Pre-proposals will be accepted from any collection of institutions within the 17-campus UNC System. Additional collaborative partners may come from outside the UNC System, but at least two UNC institutions must be involved in each proposal. Only UNC Institutions are eligible to receive funding under an IPG. Invited full proposals will be reviewed externally through a process refereed by the American Association for the Advancement of Science (AAAS).

Award Focus and Scope

UNC System IPG awards are designed to build capacity in research areas that are strategically important to North Carolina. The ultimate goal of the program is to incentivize collaboration among diverse institutions (required for this RFP) and diverse disciplines (encouraged for this RFP) to increase the UNC System's success at attracting external funding for research. Successful proposals will fully describe how the research aligns with the priority areas described above and will outline how the work will have positive short-term and long-term effects on the state. Successful proposals will also delineate the challenges to inter-institutional and/or interdisciplinary work and how the proposed work will seek to overcome those.

UNC System Inter-institutional Planning Grants will provide a maximum of \$25,000 or \$75,000 (see below) for 6 to 12 months to establish new collaborative partnerships as a first step toward pursuing larger external funding opportunities. Up to \$25,000 (Stage 1 Planning Grants) will be awarded for preliminary research planning projects that do not include pilot experiments (see Proposal Review and Evaluation section). Up to \$75,000 will be awarded for more advanced research planning projects that involve the completion of proof-of-concept studies designed to increase the team's likelihood of receiving follow-on funding (see Table 1 in the Guidelines for Proposal Submission section).

Proposers should describe how this funding would make them more competitive for follow-on funding from various external funding sources. Facilities and Administrative (F&A) costs are not allowed. We encourage proposers to carefully consider an appropriate scope for their project given the duration of the award, the amount of funding, and the goals for the project. It is anticipated that proposals will be most successful when they demonstrate how the funds would help to position teams for

- Enhancing collaboration with other UNC Institutions (particularly when the collaboration is among institutions of varying size, research program scope, and institutional mission)
- Enhancing collaboration among disciplines (with special attention given to proposals that promote collaboration between STEM and non-STEM fields)

⁵ Klein, JT. Evaluation of Interdisciplinary and Transdisciplinary Research. *Am J Prev Med*, 2008, 35(2S), S116-S123.

⁶ Nagarajan, R, *et al.* Social Network Analysis to Assess the Impact of the CTSA on Biomedical Research Grant Collaboration. *CTS*, 8(2), 150-154.

⁷ Little, MM, *et al.* Team science as interprofessional collaborative research practice: a systematic review of the science of team science literature. *J Investig Med*, 2017, 65, 15-22.

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- Positive short- and long-term impact on the state (e.g., recruiting top faculty, building specialized instrumentation or research expertise, setting up North Carolina as a hub within a given field)
- Successfully obtaining follow-on funding from other agencies, and
- Successfully commercializing technologies or services (preferred but not required).

Guidelines for Proposal Submission

The UNC System Office will accept pre-proposals from any of the 17 institution in the UNC System. Because these awards are by nature collaborative, proposers must choose a single institution to serve as the lead institution and pre-proposal submitter. **The Chief Research Officer of the lead institution must provide a ranking of applications when submitting multiple pre-proposals for his/her institution. A maximum of four pre-proposals may be submitted per institution, and these four proposals may be any combination of Stage 1 and Stage 2 pre-proposals as deemed appropriate by the Chief Research Officer. Pre-proposals will be accepted only from the Chief Research Officer.** We request that Chief Research Officers share a list of their institution's applicants and proposal titles with their institution's provost. The period of performance is six months to one year. Funding may commence as early as August 1, 2018, and the submission form is located at the following URL:

<https://app.smartsheet.com/b/form?EQBCT=82e23f3020d949148702b5e47529aadd>

Pre-proposals

Pre-proposals may be reviewed by colleagues both inside and outside of the specific discipline(s); therefore, pre-proposals should use language that can be understood by those lacking expertise in the specific research area(s). Pre-proposals must be submitted electronically as a single PDF **by March 23, 2018**. For Stage 1 projects, the pre-proposal will also serve as the full proposal.

While more than one institution may be involved, a single institution must be identified as the primary (lead) institution. Please name the pre-proposal file as follows:

Institution_Lead PI Name_PG

(PG = Planning Grant).

Examples:

Dr. Jones from East Carolina University submits a planning grant. The pdf should be named ECU_Jones_PG

The pre-proposal must contain the following (minimum 11 point font):

- Front matter (1 page) including the title of the project, a list of 5 key words, type of proposal (Stage 1 or Stage 2), principal investigator contact information, other key personnel and their affiliations, a 100-word synopsis of the proposed project, total amount requested, and anticipated duration of project.
- A brief statement (1 page maximum) describing the following:
 - The nature of the collaborative partnership (i.e., whether two or more institutions of varying size and mission are included in the project and whether the project crosses disciplinary boundaries). The statement should describe the motivation for building the collaborative team and should discuss how the project is mutually beneficial to all partnering UNC institutions.

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- A brief plan for how the team will pursue follow-on funding, including specific award programs (if information is available), potential sponsors, assessment of the new work, and timelines for preparing proposals.
- Project description (3 page maximum for Stage 1 projects, as this serves as the full proposal, or 1 page maximum for Stage 2 projects) that specifically addresses how the proposed activities align with the goals of this RFP (see Proposal Review and Evaluation section). The description should include sufficient detail such that reviewers can evaluate the goals and scientific approach of your planned proposal.
- Preliminary combined budget and justification, including a brief timeline for usage of funds (1 page). Facilities and Administrative costs (F&A; also known as indirect costs or overhead) are not allowed. Cost-matching is not required, but if it is part of the proposed budget it must be included in this document.
- Letters of support are encouraged but not required for Stage 1 applications. Stage 2 applications are not prohibited from including letters of support, but proposers will have an additional opportunity to provide letters if invited to submit a full proposal.

Pre-proposals and invited proposals will undergo review based on the criteria outlined in the Proposal Review and Evaluation section.

Proposals

Invited proposals must be submitted electronically by **May 18, 2018**. Investigators who are invited to submit a full proposal will be provided with instructions on how to apply online. While more than one institution may be involved, a single institution must be identified as the primary institution. The Chief Research Officer of the primary institution (home campus of the principal investigator) must be the submitter; proposals from other individuals will not be accepted.

Proposals must contain the following (minimum 11 point font):

- Front matter (1 page) including the title of the project, a list of 5 key words, principal investigator contact information, other key personnel and their campus affiliations, a brief statement describing the nature of the collaborative partnership (i.e., whether two or more institutions of varying size and mission are included in the project and whether the project crosses disciplinary boundaries), synopsis of the proposed project appropriate for general readership (100 words maximum), total amount requested, and anticipated duration of project.
- Project description (8 pages maximum) that specifically addresses how the proposed activities align with the goals of this RFP (see Proposal Review and Evaluation section). The description should include sufficient detail that reviewers can evaluate the appropriateness and feasibility of the proposed plans. This section must outline a clear set of goals that are aspirational yet attainable and a clear set of metrics. This is for both the collaboration and scientific components.
- A management plan (1 page maximum) is required. This section should describe the roles of the various team members and the plans for how the team will function as a unit, including modes and frequency of communication. If applicable, provide evidence for prior partnership.
- A research roadmap (1 page maximum) that includes anticipated milestones during the funding period and projected schedule of activities beyond the funding period. If the project aims to target specific funding mechanisms/RFPs, that information should be included in this section.

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- A single budget and justification, including projected expenditures by quarter (no page limit). Cost-matching is not required, but if it is part of the proposed budget it must be included in this section. Facilities and administrative costs (F&A; also known as indirect costs or overhead) are not allowed. Budget must adhere to the budget template that is used for the UNC Research Opportunities Initiative (posted on the ROI website at <http://roi.northcarolina.edu/info.html>). Proposers selected for funding will be required to submit an Excel version (rather than pdf) of the final budget document.
- One- to two-page biosketches of the principal investigator and all key personnel. There is no limit on the number of biosketches.
- Letters of support from key collaborators and/or partnering organizations. There is no restriction on the number of support letters that may be submitted.

The American Association for the Advancement of Science (AAAS) will manage the review of the invited full proposals. Each proposal will be assigned to three highly qualified third party reviewers from outside the state of North Carolina, selected for their expertise in the particular technical area(s) of the proposal. A full list of review criteria is provided in the Proposal Review and Evaluation section.

The period of performance for Planning Grants may range from 6 to 12 months. Funding may commence as early as August 1, 2018. Annual reports on the activities and progress will be due at the end of the fiscal year. Awardees will be expected to respond to occasional ad hoc requests for information as needed and also must be willing to respond to requests for information from an external evaluator.

Table 1. Stage 1 and Stage 2 Planning Grants Comparison

Award type	Maximum award	Award funds pilot studies?	Number of UNC Institutions involved	External review by AAAS?	Review process
Stage 1	\$25,000	No	At least two	No	Pre-proposals are screened by a multidisciplinary panel using review criteria on page 8 of this RFP
Stage 2	\$75,000	Yes	At least two	Yes	Invited full proposals will undergo external review by AAAS

Timeline

- February 23, 2018: Solicitation release
- March 2, 2018 at 9:30 am: Q&A teleconference call (to cover UNC System ROI research grants and this Inter-institutional Planning Grant program; call 701-801-1230, access code 600444)
- March 23, 2018: Pre-proposals due
- April 20, 2018: Pre-proposal decision
- May 18, 2018: Proposals due
- August 1, 2018: Earliest funding start

Proposal Review and Evaluation

Pre-proposals will be evaluated based on the criteria outlined below to determine invitations for full

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proposals (Stage 2 only). Invited proposals will be evaluated through a separate external review process managed by AAAS. The AAAS scoring is as follows:

- Excellent (very impressive proposal; deserves high priority)
- Very Good (high quality proposal; no serious concerns)
- Good (average proposal; some doubts or concerns)
- Fair (some deficiencies; needs improvement to meet the objectives of the RFP)
- Poor (serious concerns or some conceptual flaws)

Proposals will be reviewed according to the criteria listed below, but special consideration will be given to proposals that have the potential to make North Carolina more competitive for large-scale grants such as NSF Science and Technology Center (STC) grants, NSF Engineering Research Center (ERC) grants, NSF Materials Research Science Engineering Center (MRSEC) grants, DOD Multidisciplinary University Research Initiative (MURI) grants, NIH Clinical and Translational Science Awards, NIH program project/center grants, joint NIH-NSF interdisciplinary awards, or others. Planning Grant awardees (Stage 1 or 2) are eligible for future ROI Research Grants. Applicants must mention any grants that they plan to pursue at the end of their proposed funding period.

Proposed activities for a planning grant may include, but are not limited to the following:

Stage 1 Planning Grants (up to \$25,000)

- Establishing a research team
- Planning a new center or complex collaborative project
- Support for release time, domestic travel, workshops, and other expenses associated with conceptualization and preparation of large grants
- Domestic travel to establish partnerships and to interact with federal and industry program officers
- Planning sessions, stakeholder engagement meetings, or other professional activities related to the project
- Identification and recruitment of partners (industrial, academic or government)
- Concept development and white papers for large scale efforts
- Creation and support of resources such as websites, research collaboration sites, or other social networking tools to facilitate large scale research projects
- Other activities that will make the team more competitive for follow-on funding

Stage 2 Planning Grants (up to \$75,000)

- Any items from the Stage 1 category, plus one or both of the items below
- Developing and carrying out pilot studies (including personnel, supplies, and equipment)
- Developing tools for data management or experimental design

Planning Grants will provide a maximum of \$25,000 (Stage 1 awards) or \$75,000 (Stage 2 awards) for six months to one year. We anticipate awarding approximately six to eight grants in this cycle (FY18). At the end of the award, recipients of a Planning Grant will be expected to deliver a report that outlines the outcomes of the work and defines next steps in the collaborative project.

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Stage 1 Planning Grant evaluation criteria are as follows (pre-proposal serves as full proposal):

- **Intellectual merit**
 - Is the project plan or scientific approach reasonable?
 - What is the potential for the project to advance knowledge or understanding in discipline or disciplines?
- **Project fit and feasibility**
 - Does the project establish new collaborative partnership(s) which include multiple disciplines and at least two institutions?
 - Does the project target one or more of the six priority areas?
 - Is project completion feasible based on the proposed timeline and budget (note project length 6 to 12 months and maximum budget of \$25,000)?
- **Broader Impact**
 - Does the project have the potential to change a paradigm in the field, create a new connection between two or more disciplines, or open up new channels of collaboration?
 - What is the potential for follow-on funding after the period of performance?

Stage 2 Pre-proposal Planning Grant evaluation criteria:

- **Intellectual merit**
 - Will the project significantly advance knowledge or understanding in the discipline or across disciplines?
 - Is the project design and/or scientific approach reasonable?
- **Project fit and feasibility**
 - Does the project establish new collaborative partnership(s) which include multiple disciplines and diverse institutions in one or more of the priority areas?
 - Is project completion feasible based on the proposed timeline and budget (note project length 6 to 12 months and maximum budget of \$75,000)?
- **Broader Impact**
 - Does the project have the potential to shift a paradigm in the discipline or disciplines, create a new connection between two or more disciplines, or open up new channels of collaboration?
 - What is the potential for follow-on funding after the period of performance?

Stage 2 Full proposal Planning Grant evaluation criteria are as follows:

- **Intellectual merit**
 - Importance of the planned project to advancing knowledge or understanding in its own field or in other fields. At this early stage, research ideas that are untested or unconventional are expected.
 - Originality of the planned project. Does the project have the potential to change a paradigm in your field or open up new channels of collaboration?
 - Qualifications of the principal investigator and team to carry out the planning and the ultimate project, including strength of the Management Plan.
- **Project fit and feasibility**
 - Clear targeting of one or more of the priority areas

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- Clear description and feasibility of the milestones, metrics and anticipated planned project deliverables
- Clear beneficial nature of the inter-institutional partnership(s). Proposals that outline a partnership between larger and smaller institutions will be scored most favorably.
- Reasonableness of the budget

- **Broader Impact**

- The possibility that the planned project will lead to major research opportunities that can be supported by federal agencies, industry, or non-profits. Special consideration will be given to proposals that position NC to be competitive for large-scale federal funding such as STC or MRSEC grants.
- The design of the collaborative partnership itself. Is the partnership structured in a way that promotes success? What steps will be taken to ensure effective communication and consistent progress toward metrics?
- The degree to which the planned project builds on existing strengths.
- The future potential for significant commercialization via patents, licensing, spin-offs, and/or investment from the private sector. We do not expect significant commercialization activities to take place during the planned funding period but would like to see this grant set the team up for future commercialization activities.
- Potential for short-term (~1 year) and long-term impact on North Carolina if the team concludes that their collaboration will continue after the planned funding period.

Inquiries

Questions regarding this solicitation may be directed to Dr. Erin Hopper:

Joe B. Whitehead, Jr., PhD
Senior Advisor for Research
University of North Carolina System
jwhitehead@northcarolina.edu
(919) 445-0494 Office
(601) 818-9076 Cell

Sarah Smith
Director of Sponsored Programs
University of North Carolina System
smsmith@northcarolina.edu
(919) 962-4557