



## DRIVING TOMORROW

Our ten-year plan to lead and innovate

Twin Cities Campus Strategic Plan

**Grand Challenges Research**

### Transforming the University of Minnesota through the Enhancement of Interdisciplinary Research

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Provost's Grand Challenges Research Initiative—Phase 3  
*Spring 2018*

#### Frequently Asked Questions

The following information is provided to further clarify the Grand Challenges Research Phase 3 opportunity for faculty members: the competitive call for large-award pre-proposals. The pre-proposal deadline is Wednesday, June 6, 2018. Phase 3 focuses on three of the five Grand Challenges: *Feeding the World Sustainably*, *Advancing Health through Tailored Solutions*, and *Enhancing Individual and Community Capacity for a Changing World*. Questions not addressed below can be submitted to [gcrsrch@umn.edu](mailto:gcrsrch@umn.edu) for a response. Please see the [submission guidelines](#) for additional details.

#### Competitive Call for Proposals

##### Co-Principal Investigator (co-PI) and research team eligibility

###### ***Must co-PIs be tenure track faculty?***

Two or more individuals must be named as co-PIs in the pre-proposal submission. At least one co-PI must be a tenure-track faculty member. If adequately justified by the specific needs of the proposed project, however, other co-PIs may hold a regular line or research support position, rather than a tenure track position. The purpose of this program is to enhance the future interdisciplinary research capacity of the Twin Cities campus research scholars, whether or not tenure track faculty. Scholars who hold continuing positions and who are committed to that objective are eligible to be co-PIs. Eligibility as a co-PI follows Board of Regents policy.

###### ***May the co-PIs be from the same college if the proposed project is broadly interdisciplinary?***

Yes. *The Twin Cities Campus Strategic Plan Driving Tomorrow* calls for steps to be taken to transcend institutional boundaries, in pursuit of movement toward “one university” in which interdisciplinary collaborations flourish without restrictive barriers. In that spirit, the Grand Challenges Research initiative intends to support research collaborations that bring together researchers from different colleges. The fundamental objective, however, is to expand the reach of interdisciplinary collaborations, in order to foster innovative ways of thinking about and studying Grand Challenges issues. If that objective can be met through broadly interdisciplinary collaboration within a college, co-PIs may be based in multiple departments within the same college.

***Are there eligibility requirements for research project team members?***

Research team members must be identified on the cover page of the pre-proposal submission, along with the co-PIs. Teams can include tenure-track faculty members and other categories of research scholars. Co-PIs are strongly encouraged to include post-docs, graduate and undergraduate students, other members of the University’s scholarly community, and external partners in aspects of the proposed work.

***Are only Twin Cities campus faculty and researchers eligible to participate in the competitive call for idea proposals?***

No, but with a caveat. The Grand Challenges Research initiative, an element of the Twin Cities Campus Strategic Plan, is based on resources drawn from the Twin Cities campus, and hence is largely focused on researchers of the campus. At least one co-PI should be a Twin Cities campus-based faculty member as should a significant number of the larger research team. For example, a worthy project might be proposed that, in order to be successful, requires participation by others beyond the Twin Cities campus. If that requirement is well justified in the pre-proposal, then the campus limitation can be relaxed.

**Grand Challenges Research—Phase 2 goals**

***This call appears to intentionally limit the number of scholars who can participate by virtue of funding only a handful of large awards. How does this strategy enhance interdisciplinary research?***

The Provost’s Grand Challenges Research initiative is a work in progress as the University explores strategies for optimal support of interdisciplinary research. We are employing a variety of strategies during the early phases of this “experiment” to identify approaches that reduce barriers to interdisciplinary research, determine best practices, and advance culture change within the institution. As stated in the Guidelines, Phase 3 focuses on a smaller number of larger awards – up to \$500,000 per award – but with opportunities for smaller awards as well.

Indeed, **the initial phase of Grand Challenges Research**, in May 2016, called for proposals across the five Grand Challenges with the possibility of up to \$60,000 plus a potential international enhancement award of up to \$50,000. We were able to fund 21 of these “exploratory” projects within the five Grand Challenges. In Phase 2, we focused on just two of the five Grand Challenges—***Assuring Clean Water and Sustainable Ecosystems*** and ***Fostering Just and Equitable Communities***. Larger award amounts were invested in six interdisciplinary teams. Employing a variety of investment mechanisms is ultimately important in evaluating processes and outcomes from these different strategies. To date, the large interdisciplinary projects have involved more faculty (and students and external partners) on the research team than were involved in the smaller award projects. The goal is not to limit participation but rather to identify best strategies to support research outcomes that notably contribute to solutions and to elevate the capabilities of research faculty and the institution.

***This call also appears to limit participation of the breadth of disciplinary expertise across the campus by focusing on only three Grand Challenges rather than all five of the institutionally embraced Grand Challenges. How does this strategy enhance interdisciplinary research?***

It is especially important to note that the three Phase 3 Grand Challenges—which address food, health, and capacity building—provide a broad umbrella for faculty from the full range of disciplines to participate on proposed research teams. We encourage participation from faculty in the arts, humanities, social sciences, physical and biological sciences and engineering, health sciences, and the professions to work on these three Grand Challenges and their intersections.

We focused on all five Grand Challenges embraced by the campus during the **Grand Challenges Research—Phase 1** call. Proposal submissions clustered under the five Grand Challenges were of high quality. Given the multiple dimensions being addressed in each Grand Challenge through the projects funded in Phase 1, however, there were fewer opportunities for cross fertilization. For Phase 2 (focused on two Grand Challenges) and Phase 3 (focuses on three Grand Challenges), we pair only a subset of the challenges per call to help ensure a more specific focus of scholarship.

***My colleagues and I are interested in more than one of the three Grand Challenges. Is it important to focus on only one?***

No, working at the intersection of two or more Grand Challenges is encouraged. For example, unique opportunities are emerging from Phase 2 awards that included teams who are working at the intersection of clean water and just and equitable communities. Please note that you can work at the intersection of the three Phase 3 Grand Challenges, or including either clean water or just and equitable communities with one of the three Phase 3 Grand Challenges.

**Proposal submission questions**

***May a scholar submit more than one pre-proposal?***

Yes, absolutely. There are no limitations on the number of collaborative interdisciplinary pre-proposals in which a researcher proposes to participate.

***Is June 6 a firm deadline for pre-proposals?***

Yes, and we will move into the review process immediately in order to maintain our schedule for award announcements in early 2019. Please recall that this is an iterative process. . Following peer review of the two-page pre-proposals, invitations for full proposals will be extended in August 2018 to those who described particularly promising research ideas in their pre-proposals. The iterative process is envisioned as a way to provide review comments that will benefit co-PIs and team colleagues in shaping a final full proposal. The deadline for invited full proposals is October 10, 2018.

***Will there be support for faculty salaries?***

The grants are intended to enhance the interdisciplinary capacity of the University to address Grand Challenges, rather than as a salary supplement to enable faculty to complete an existing writing or creative project. Accordingly, the expectation is that most of the funds will be used for research support and capacity enhancement, rather than salary for faculty members or other research positions. If some portion of the funding is required for faculty salary for the success of the proposed research, however, and if that requirement is well justified in the proposal, it is permitted. Please note, however, that we encourage the inclusion of graduate and undergraduate students on research teams. Student appointments should be incorporated into project budgets.

***Why is a budget not required at the pre-proposal stage?***

A well-defined budget is an essential component of a successful research project, and is required of those who are invited, following review of pre-proposals, to submit a full proposal. At the pre-proposal stage, we require only the level of funding that you are requesting for the project. The amount is an estimate, since it may change during the iterative process of review and discussion. The overarching focus of your pre-proposal should be on the potential of your research idea to have a substantial impact on the Grand Challenge and to strengthen the position of the University as a leader in addressing aspects of the Grand Challenge.

### ***May proposals be focused centrally on curricular development?***

A hope underlying the Grand Challenges research initiative is that the supported research will have positive spin-offs for curricular innovation, both programmatically and in the form of new courses for the Grand Challenges curriculum. Identifying such curricular spin-offs in the pre-proposal is appropriate. These grants, however, are expressly to support research collaborations, and so should not focus primarily on curricular development.

## **Criteria for awarding grants**

### ***How will my pre-proposal be evaluated?***

As stated in the guidelines for submission, pre-proposals will be evaluated on:

- Potential of the research to have a substantial impact on the Grand Challenge **and** to position the University to play a leadership role with respect to the Challenge,
- Scholarly strength and interdisciplinary scope of the proposed team,
- Likely impact on shaping change in the University, and
- Potential to leverage substantial external funding.

Please refer to the guidelines for your two-page pre-proposal submission for the six questions that you should address in your pre-proposal idea description.

### ***Who will review idea proposals and full proposals and make final selections?***

Proposals will be reviewed by a panel of scholars drawn from disciplines that inform the potential for research in clean water, just and equitable communities, or the intersection of the two Grand Challenges. We will ensure that each pre-proposal and full proposal are read and evaluated by scholars who understand the proposed topic, the proposed research approach(es), and the institutional commitment to fostering new mechanisms to enhance interdisciplinary research. This interdisciplinary panel of distinguished scholars are well versed in the development of the Twin Cities Campus Strategic Plan and the Grand Challenges Research initiative as well.

As appropriate, additional internal and/or external reviewers may be engaged. The iterative review process will inform recommendations for funding of selected proposals. Collegiate deans will discuss the recommendations and Provost Hanson will make the final funding awards. The funded projects will be announced in early 2019, and funds will be available immediately thereafter.

### ***What is the process for feedback on submitted proposals?***

Written comments will be provided to all co-PIs whose proposals are not selected for funding. Ideally, written comments will be helpful to those who wish to pursue the proposed work through other mechanisms. The PIs of funded projects will be invited to engage with the Grand Challenges Research initiative team and its partners prior to launching their projects.

## **Support for teams receiving awards**

Funded Grand Challenges Research teams can benefit from their ongoing relationship with the Grand Challenges Research Initiative team and its partners. Stewardship meetings can include assistance with University and other sources of expertise and assistance.

***What kind of resources are available to help ensure that newly formed, funded interdisciplinary teams achieve their goals?***

Partner units offer helpful resources to newly formed, funded teams. Grand Challenges Research Initiative partners include the Global Programs and Strategy Alliance, Institute for Advanced Study, Institute on the Environment, Interdisciplinary Center for the Study of Global Change, Office for Public Engagement, Office of Undergraduate Research, and University Libraries. Partners can assist teams with resources and relationship building related to developing community engaged research, identifying undergraduate researchers as team members, or fostering international connections, for example.

**University Libraries** offers dedicated, sustained research support to every Grand Challenges research team. This support is tailored for the needs of each team and can include:

- Kicking off projects with a **research sprint**
- **Subject-specialized librarians** embedding with your team
- Aligning your research practices with **federal funding requirements**
- **Identifying collaborators** across the university
- Connecting you with relevant **scholarship, data, and expertise**
- Managing **interdisciplinary teamwork** with collaborative tools
- Designing efficient **information-management** workflows
- Building and maintaining your **scholarly web presence**
- Engaging in open science and **reproducible** research
- Navigating **author rights and copyright**
- Publishing open educational resources and **open-access scholarship**

***When and who should our team contact if we think some element of the project may have commercial potential?***

The **Office for Technology Commercialization** helps University research move beyond the lab and into the marketplace. If you think any aspect of your project might be something that could either be the basis for a new product/service or that an outside entity may find value in using—a validated questionnaire, data sets, research tools, or other—please contact a **Technology Portfolio Manager** at the Office for Technology Commercialization to discuss your project as early in the research process as possible.

***How can our funded interdisciplinary team most efficiently contact these many resources?***

As a first step, any questions, needs for partner contact information, or clarifications on processes related to your funded project should be directed to the Grand Challenges Research Initiative team at [gcrsrch@umn.edu](mailto:gcrsrch@umn.edu). We will help you navigate all opportunities.