

THE UNIVERSITY OF NEW MEXICO'S

GrandChallenges

Request for Proposals: Grand Challenge Conceptual Goals

Proposal Due Date: January 17, 2019

INTRODUCTION

A thriving, vibrant research community is essential to UNM and to New Mexico's economy and culture. Since the 1940s, New Mexico has hosted groundbreaking research and creative innovation across many fields, in part due to the unique combination of national laboratories, research universities, creative sectors rooted in the diversity of local cultures, military labs and the spectacular natural landscape. These have attracted talent and resources to our state and will continue to do so. Our current opportunity and challenge lie in assuring that together they generate an ecology of innovation that can foster a dynamic economy built on ongoing fundamental and applied research.

Grand Challenges are problems of global, national and regional significance that require researchers to work together across disciplinary boundaries to develop and implement solutions. Grand Challenges address problems that, when solved, have a significant positive impact on people and society. These challenges are large in scale, ambitious in scope, and multi-disciplinary. They have carefully developed specific goals that enable multiple paths towards solutions, and that are relevant across varied disciplines and communities.

Through this RFP process, UNM will select three Grand Challenge Conceptual Goals (two led by UNM Main Campus, and one led by UNM Health Sciences Center), and will fund research planning grants for each.

By implementing the Grand Challenge initiative, UNM will:

- Garner significant extramural research funding
- Enhance student, staff and faculty success and morale
- Create cross-university teams that work collaboratively with community members and organizations
- Enhance the prominence of UNM as a research institution
- Address issues and problems of critical importance to the citizens of New Mexico

The University of New Mexico invites teams of UNM researchers to propose Grand Challenge (GC) Conceptual Goals, and to serve as conveners for further development of these goals. Following the selection of the three UNM Grand Challenge Conceptual Goals, scoping workshops will be held to help GC proposal teams develop detailed research projects. Planning grants of \$70,000 will be awarded to each of these three teams based on their research plans. Teams will: (i) work collaboratively with the UNM administration to develop compelling proposals

for internal seed funding over the next few years (FY20-24), (ii) develop milestones for the GC Goal over this period, (iii) use seed funding to develop strategic targets and prepare successful applications for extramural funding, and (iv) build broader, yet more interdisciplinary, teams across UNM to undergird further work and the extramural applications.

Grand Challenge Conceptual Goal proposals led by HSC should address one of the three previously identified HSC strategic areas:

- Childhood Wellbeing,
- Successful Aging, and
- Brain and Behavioral Health.

Grand Challenge Conceptual Goal proposals led by main campus may address any focus areas that are important to New Mexico (and beyond), and that draw upon UNM's existing expertise. Example focus areas *include, but are not limited to*: mitigation of climate change, sustainability, crime, educational disparities, cyber security, addictions and water resources. Note that these are potential areas of focus for a Grand Challenge but are too broad and general to be Conceptual Goals.

Rather, each Grand Challenge Conceptual Goal must:

- Be broad enough to involve many disciplines and units across main campus, HSC and the branch campuses;
- Leverage and enhance existing UNM expertise and resources;
- Be ambitious and long-term, yet potentially achievable;
- Be sufficiently compelling to generate enthusiasm and engagement, both inside and outside of the University;
- Align with New Mexico needs or established statewide priorities; and
- Have demonstrated potential to generate substantial extramural funding (e.g., through grants, contracts or philanthropic gifts).

Examples of GC Conceptual Goals from other universities include:

- UCLA: Transition Los Angeles County to 100% renewable energy, 100% locally sourced water, and enhanced ecosystem and human health by 2020
- UT Austin: Planet Texas 2050: Sustaining critical resources (including clean drinking water, reliable electricity, clean air, a stable economy and a safe place to live)
- University of Minnesota: Achieve adequate supplies of safe and clean water to sustain people, agriculture, and industry, while protecting water resources and ensuring the sustainability of environmental systems and the vitality of communities on rivers, lakes and seas

PROPOSAL DEADLINE and NOTICE OF SELECTION

- RFP's available: November 1, 2018
- Proposal submission deadline: January 17, 2019 (11:59 pm)
- Grand Challenge Conceptual Goals announced: February 2019

ELIGIBILITY AND PROJECT REQUIREMENTS

Each proposal must designate a “lead convener” who is a UNM tenured or tenure-track faculty member from main campus or HSC, and who will serve as the main point of contact. Other GC proposal team members may include UNM tenured/tenure-track and non-tenure faculty, staff, and external stakeholders/community members.

Each GC proposal team must:

- Include at least five team members across at least three academic disciplines, and from at least two UNM colleges, schools or campuses; teaming across all UNM campuses is encouraged.
- Include the expertise and experience necessary to convene and coordinate a multi-disciplinary research project related to the proposed GC Conceptual Goal;
- Be diverse across multiple dimensions, including, but not limited to, discipline, social identity, and faculty rank;
- Demonstrate connections to networks that will facilitate expanding participation in GC activities across the institution and with external stakeholders;
- Demonstrate prior experience in securing extramural funding; and
- Identify plausible funding opportunities related to the proposed GC Conceptual Goal.

If selected to be one of UNM's three Grand Challenge Conceptual Goals, the proposing team members are expected to:

- Attend a two-day scoping workshop in the spring 2019 to develop and refine research projects and expand research teams;
- Meet regularly with the GC Operations Director or HSC Liaison in order to keep the GC Steering Committee informed as to research needs and accomplishments, and to facilitate outreach to relevant internal and external stakeholders;
- Provide data and reports of progress as requested by the GC Steering Committee.

PLANNING GRANT FUNDING OVERVIEW

Each successful proposal team will receive \$70,000 seed funding to develop and implement GC multi-disciplinary research projects related to their proposed Grand Challenge Conceptual Goal. This funding may be spent on research materials, graduate assistants, release time, summer salary, travel or other generally allowable research costs. The team will develop and propose a budget for this award following the scoping workshops in Spring 2019.

WHAT TO SUBMIT

Proposals are limited to 5 pages, single spaced, with 12-point font (Times, Calibri, Ariel or Helvetica) and 1" margins. Cover sheet, references and CVs do not count against page limit.

Sections should include (see evaluation rubric below for detail):

- Cover Sheet (1 page; does not count against five-page limit):
 - Grand Challenge Conceptual Goal
 - Names, titles, and departments/organizations of lead convener and each team member
 - 200 (maximum) word proposal abstract written for a general audience (this abstract may be made publicly available)
- Proposal Description
 - Description and justification for proposed Grand Challenge Conceptual Goal
 - Evidence this goal is of concern to NM
 - Description of the impact it will have on NM and beyond
 - Examples of potential research thrusts that could be pursued across multiple disciplines
 - Description of relevant UNM expertise in relation to the state of research on the Goal and related major initiatives elsewhere
 - Identification of potential external funding sources that can be pursued
- Research Team and Network:
 - Evidence that lead convener and team members have previous experience participating in successful multi-disciplinary projects and engaging with community members
 - List of UNM researchers who have expressed an interest in participating in multi-disciplinary research related to your GC conceptual goal;
 - List of other UNM researchers who you could reach out to later if funded
 - List of external researchers and stakeholders who have expressed an interest in participating in multi-disciplinary research related to your GC conceptual goal;
 - List of other external researchers and stakeholders who you could reach out to later if funded
- Ideas for leveraging your Grand Challenge Conceptual Goal to engage undergraduate and graduate students, and to connect with community stakeholders
- Attachments: Please attach a biosketch (2-page maximum) for lead convener and key team members

Submit the proposal as a **single document** with file name: GC [keyword]_[lead convener last name] to: grandchallenges@unm.edu by **11:59 pm January 17, 2019**.

REVIEW PROCESS

Each GC Concept Proposal will be evaluated by faculty and external reviewers, who will make recommendations to the Grand Challenges Steering Committee. This committee will make recommendations to UNM President Garnett S. Stokes for final determination.

REVIEW CRITERIA

<p>A. SCOPE OF THE GRAND CHALLENGE AREA AND THEME: 10 Points</p> <ol style="list-style-type: none">1. The proposed GC Conceptual Goal is broad enough to involve a large portion of the University.2. It is ambitious, yet plausibly achievable.3. It is compelling enough to generate enthusiasm and engagement, both inside and outside of the University.
<p>B. FIT OF THE GRAND CHALLENGE: 15 Points</p> <ol style="list-style-type: none">1. This GC Conceptual Goal allows UNM to leverage and amplify existing expertise and resources.2. It aligns with New Mexico needs or established statewide priorities.3. This proposal identifies potential sources for securing significant external funding
<p>C. QUALIFICATIONS OF PROPOSAL TEAM: 25 Points</p> <ol style="list-style-type: none">1. Team members include representatives from multiple (at least three) academic disciplines, and from multiple schools, colleges or campuses (at least two).2. Team members possess the expertise necessary to convene and coordinate a series of externally funded, multidisciplinary research projects related to the proposed GC theme.3. Team members demonstrate the capacity to expand participation in research across the institution, and with external stakeholders.4. Team members demonstrate the capacity to secure extramural research funding.5. Team members are diverse across multiple dimensions, including, but not limited to, race and gender.
<p>D. EDUCATIONAL AND/OR COMMUNITY ENGAGEMENT: 25 Points</p> <ol style="list-style-type: none">1. This proposed GC Conceptual Goal lends itself well to engaging undergraduate and graduate students in the research.2. This proposal demonstrates potential to engage community stakeholders outside of UNM and in areas throughout New Mexico.
<p>E. PLAN FOR EXTRAMURAL FUNDING: 25 Points</p> <ol style="list-style-type: none">1. Proposal includes potential sources of extramural funding, including from federal, state, philanthropic or other sources. Priority will be given to proposals that identify specific funding opportunities that address multiple disciplines.

ADDITIONAL RESOURCES AND INFORMATION

Please visit grandchallenges.unm.edu for additional information and references on university grand challenge programs and ongoing GC activities at UNM.

Submit questions to: grandchallenges@unm.edu.