

W.M. Keck Foundation Research Program Area Limited Competition Briefing

Mary Jo Daniel, PhD
Director, UNM Faculty Research Development
277-0168, mjdaniel@unm.edu

Monica Fishel
UNM Faculty Research Support Officer
277-8114, mlfishel@unm.edu

Betsy Till
Sr. Director, UNMF Corporate and Foundation Relations
277-1589, btill@unmfund.org

Overview

- Keck Foundation Background
- Program Areas
- Grant Criteria
- Grant Process
- Typical Grant Characteristics
- Budget Information
- Applications
- UNM Timeline
- Keck Timeline
- History with UNM
- Recent Grants

Keck Foundation Background

- Established in 1954 by founder of Superior Oil Company
- Mission is to provide far-reaching benefits to humanity through imaginative grants supporting scientific discoveries and new technologies
- 2014 Assets: \$1,234,432,000
Total 2014 Giving: \$55,214,000
- Keck makes awards only to 501c3 nonprofits so UNM Foundation is UNM's applicant agency for Keck
- Betsy Till is Keck Liaison for UNM and UNMF
- www.wmkeck.org

Program Areas

- Science and Engineering Research*
- Medical Research*
- Undergraduate Education
- Southern California Program

* *Main/Branch campus researchers may apply only for Science and Engineering program grants*

* *HSC researchers may apply only for Medical Research program grants. Contact Corey Ford for more information.*

Grant Criteria

- The Keck Foundation's goal is to change the course of 21st Century science.
- Keck supports high-risk/high-impact research “to lay the groundwork for new paradigms, technologies and discoveries that will save lives, provide innovative solutions, and add to mankind's understanding of the world.” Both Senior and Early Career investigators are encouraged to apply.
- Their priority is to invest in pivotal, difficult work; work that overcomes some obstacle; work that falls outside the mission of public funding agencies and that (typically) presents too much risk for NIH or NSF to yet fund.
- <http://www.wmkeck.org/grant-programs/research/eligibility-and-priorities>

Grant Process

- Two grant cycles per year
- Will give feedback on four concepts in each program area per grant cycle
- Submit one Phase 1 proposal per cycle
- Keck will make grants only to private foundations associated with universities (UNM Foundation). Funds are then transferred to university spending accounts.
- Keck will only communicate with the UNM Foundation liaison, not with individual faculty members

Typical Grant Characteristics

- Limited competition – one grant per program area per grant cycle
- Grants are multi-year (each of our previous grants has been three years)
- Emphasis on basic science
- Transformational impact that answers a major question, meets an important need and moves a field or discipline forward
- Strong justification for why Keck should fund

Budget Information

- Keck will not fund indirect costs but can use as imputed overhead
- PI time limited to 10% but will pay 100% of post docs or grad students salary (no tuition)
- Max grant amount = \$1 million
- No international funding
- No funding for federal/national lab salaries, but can pay for post-doc work at labs, contract lab services, etc.
- To be competitive, UNM must provide cost-share (imputed IDC, salaries, equipment, etc.)

Step 1 – Concept Paper

- <http://www.wmkeck.org/component/content/article/214-grantprograms/shared/1482-concept-papers>
- Single-paged concepts should be in 12-point font with 1- inch margins and should include:
 - an overview of the proposed project emphasizing any unique aspects and pilot studies (for Research Program concepts, indicate area of emphasis for project - medical research or science and engineering research);
 - a description of the methodologies and key personnel;
 - a brief justification of the need for Keck support; and
 - an estimated budget broken down, if possible, by major areas, e.g., personnel, equipment, consumable supplies, etc. (budgets can be rough approximations at this stage).
- If there's room, the authors are free to add other details (e.g., background to put the research into perspective, description of the institution's prominence in the field, etc.). Avoid illustrations in these single-pagers – the researchers will need all the room for text. If a reference is necessary, abbreviate it as (Science, 323, 45, '11). DO NOT USE (Jones et al., 2011).

Follow Instructions!!

Concept Paper Template

Title

Overview. [Insert text...]

This section will define the problem or need and provide an overview of your plan to solve the problem or meet the need. Must describe the transformational nature of the work and the potential impact of the research.

Methodologies and key personnel. [Insert text...]

This section will briefly explain your aims and objectives and how you plan to conduct your research program as well as very brief descriptions of relevant experience of key personnel.

Justification for Keck support. [Insert text...]

This section must explain why Keck should fund this program. Reasons could include lack of appropriate federal funding program, high-risk nature of research, etc. Best if you can include feedback quotes from previous reviewers stating why they won't fund.

Budget. [Insert text...]

This section will include the overall term and cost of the program and include dollar figures for broad budget categories such as personnel, equipment, supplies, etc.

The most important concepts here are “Transformational” and “Justification”

Step 2 – Phase 1 Proposal

- Limited comp committee will choose one Phase 1 proposal to submit for November 1 deadline
- <http://www.wmkeck.org/grant-programs/research/application-process-14030/222-grantprograms/medicalresearch/1090-phase-i-application>
- Review the requirements for the Phase I proposal and budget as you write your concept paper

UNM Timeline

- Open limited competition – April 2016
- Concept papers due – June
- Selection committee chooses maximum of four concepts to discuss with Keck – June
- Betsy works with PIs to refine concept papers, sends required information to Keck – July 1
- Betsy and Mary Jo discuss concepts with Keck program officer – between July 1 and August 15
- Based on Keck feedback, committee downselects to one concept and PI is informed – no later than August 31
- Betsy works with PI to refine Phase I application, sends required information to Keck
- Phase I proposal due to Keck – November 1

Note: Proposals must be submitted by the UNM Foundation, but must first be approved by the appropriate UNM pre-award office.

Keck Timeline

- Phase I proposals due November 1, 2016
- Invitation to submit Phase II, January 15, 2017
- Phase II proposals due February 15, 2017
- If interest after Phase II review, site visit will be conducted in March or April
- Grant decision made at June board meeting with grant award by end of that month

Keck Grants are Prestigious and Competitive

- Keck grants fill a special niche in the research community and are prestigious and highly competitive. Per grant cycle, Keck usually receives:
 - 150-200 concepts
 - 65 Phase 1 applications
 - Invites 15-20 Phase 2 applications
 - Conducts 8-10 site visits
 - Makes 5-6 awards

History with UNM

Five grants awarded since 1995 total \$3,930,000

- Ultrahigh-Resolution Imaging Laboratory – 1995 (Science and Engineering), Wolfgang Rudolph and Jean-Claude Diels, PIs
- The Keck-UNM Genomics Resource (KUGR) – 2000 (Medical Research), Cheryl Willman, PI
- A Laboratory and Research Program to Explore and Exploit Complex Fluid Dynamics at Nanoscale Dimensions – 2004 (Science and Engineering), Gabriel Lopez, PI
- The Keck-UNM Small Animal Imaging Resource (KUSAIR) – 2005 (Medical Research), Larry Sklar, PI
- A Facility to Perform Biomolecular Imaging, Real Time Phase Mapping of Biological Dynamics: The Keck Scanning Phase Intracavity Nanoscope (SPIN) – 2008 (Science and Engineering), Jean-Claude Diels, PI

Science and Engineering Recent Grants

Recipient – Arizona State University

Description – Investigate the origins of the Earth's water and hydrogen using innovations in electron microscopy and diamond-anvil-cell pressurization. Successful demonstration of the scientific method would significantly advance high-pressure technology.

Recipient – Montana State University

Description – Characterize and grow novel microorganisms living in extremely high temperature and strongly alkaline environments for potential value in renewable fuels and chemicals, medical applications, and novel thermostable compounds.

Recipient – University of Michigan

Description – Design, create, and test a new near-infrared camera with potential applications in large telescope design, medical imaging, 3D imaging, and photon-number resolving.

Recipient – University of California, Santa Barbara

Description - Create a high-pressure, laser-based optical furnace capable of floating-zone growth of single crystals at the frontier of a new quantum phase discovery.

<http://www.wmkeck.org/grant-programs/research/medical-research-grant-abstracts/science-and-engineering-2015>