

# **Packard Fellowships for Science & Engineering**

## **2017 Internal Review Binder**

Conflict of Interest Policy

External Announcement

Internal Announcement

Tally of Internal Proposals

Proposals

Applicant #1, Assistant Professor, Earth & Environmental Sciences  
Start Date: September 1, 2016

Applicant #2, Assistant Professor, Astronomy  
Start Date: February 12, 2015

Applicant #3, Assistant Professor, Electrical Engineering  
Start Date: June 3, 2016

Applicant #4, Assistant Professor, Neuroscience  
Start Date: December 18, 2013

Applicant #5, Assistant Professor, Business  
Start Date: January 1, 2014

## THE OFFICE OF RESEARCH INITIATIVES – CONFLICT OF INTEREST POLICY

**PLEASE NOTE:** In order to assemble a committee of judges knowledgeable in the fields relevant to a limited competition, potential conflicts are often unavoidable. To manage this issue fairly, the Office of Research Initiatives strives for complete transparency and aims to avoid direct Conflicts of Interest throughout each internal committee process. We rely on committee members to disclose any conflict and ask that each one identify (by return email) any direct conflicts, such as a mentor relationship or joint publication within the last three years. Unlike a tenure process, members of a limited competition committee are expected to be judges rather than advocates. If while further reviewing the internal proposals, one finds that a particular conflict is so substantial, we ask that faculty member to recuse him or herself from reviewing the applicant(s) with whom a conflict exists. Thank you for your understanding.

Some examples of conflicts from the NIH's Conflict of Interest Definition follow by way of guidance:

**Professional Associates:** Professional associate means any colleague, scientific mentor, or student with whom the peer reviewer is currently conducting research or other significant professional activities or with whom the member has conducted such activities within three years of the date of the review, including publications.

**Longstanding Disagreements:** A conflict of interest may exist where a potential reviewer has had longstanding scientific or personal differences with an applicant.

**Financial Benefit:** A reviewer shall have a real conflict of interest if he/she or a close relative or professional associate of the reviewer: (1) has received or could receive a direct financial benefit of any amount deriving from an application or proposal under review; (2) has received or could receive a financial benefit from the applicant institution, offeror or principal investigator that in the aggregate exceeds \$10,000 per year (for reviewers who are federal employees the amount is \$15,000 per year); this amount includes honoraria, fees, stock or other financial benefit, and additionally includes the current value of the reviewer's already existing stock holdings, apart from any direct financial benefit deriving from an application or proposal under review; or (3) has any other interest in the application or proposal that is likely to bias the reviewer's evaluation of that application or proposal.

**Personal Relationships (Relatives):** A close relative means a parent, spouse, sibling, son or daughter or domestic partner. A conflict of interest exists if a close relative of a reviewer submits an application or proposal, or receives or could receive financial benefits from or provides financial benefits to an applicant or offeror. In such case, it will be treated as the reviewer's financial benefit.

# The Packard Fellowships for Science and Engineering

## 2017 Guidelines

The Packard Fellowships for Science and Engineering program invests in future leaders who have the freedom to take risks, explore new frontiers in their fields of study, and follow uncharted paths that may lead to groundbreaking discoveries.

### Program Overview

The success of the Hewlett-Packard Company has been built on technology, derived in large measure from research and development in university laboratories. Because the endowment of the David and Lucile Packard Foundation would not have been possible without the success of HP and because the research performed by university-educated engineers and scientists will provide the basis for future high-value economic activity for the nation, the Foundation has a long-standing interest in strengthening both university-based research and graduate education.

In 1988, the Foundation established the Packard Fellowships for Science and Engineering to allow the nation's most promising early career professors to pursue their science and engineering research with few funding restrictions and limited paperwork requirements.

Every year, the Foundation invites the presidents of 50 universities to nominate two early-career professors each from their institutions. Nominations are carefully reviewed by the Fellowship Advisory Panel, comprised of distinguished scientists and engineers. Eighteen recipients will receive individual grants of \$875,000 distributed over five years. Of the

\$175,000 paid each year, \$17,500 is available to the university as compensation for administrative costs.

Over 28 years, the Foundation has awarded \$378 million to support over 558 scientists and engineers from 52 top national universities. It is among the nation's largest nongovernmental fellowships, designed to allow maximum flexibility on how the funding is used. Packard Fellows have gone on to receive many additional awards and honors, including the Nobel Prize in Physics; the Fields Medal; the MacArthur Fellowships; and elections to the National Academy of Sciences and the National Academy of Engineering.

### What We Fund

Candidates must be faculty members who are eligible to serve as principal investigators engaged in research in the natural and physical sciences or engineering and must be within the first three years of their faculty careers. Disciplines that will be considered include physics, chemistry, mathematics, biology, astronomy, computer science, earth science, ocean science, and all branches of engineering. Candidates engaged in research in the social sciences will not be considered.

The Fellowship Program provides support for highly creative researchers early in their careers; faculty members who are well established and well-funded are less likely to receive the award. Packard Fellows are inquisitive, passionate scientists and engineers

who take a creative approach to their research, dare to think big, and follow new ideas wherever they lead.

The Foundation emphasizes support for innovative individual research that involves the Fellows, their students, and junior colleagues, rather than extensions or components of large-scale, ongoing research programs.

---

*Packard Fellows are inquisitive, passionate scientists and engineers who take a creative approach to their research, dare to think big and follow new ideas wherever they lead.*

---

## What We Do Not Fund

Recognizing that certain areas of contemporary science and engineering already have access to relatively generous funding (for example, clinical research, research associated with the design and construction of large national facilities such as accelerators and space stations, and applied research of direct relevance to national security), the Packard Fellowships are directed to other, less generously supported fields.

## Nomination Procedure

Nominations are requested in January of each year from the presidents of 50 universities selected by the Advisory Panel. Up to two nominations may be made by the president of each institution. Candidates must be faculty members in the first three years of their faculty careers, that is, whose initial faculty appointments began no earlier than May 31, 2014, and no later than May 31, 2017.

## Selection Process

Nominations are reviewed by the Advisory Panel, which makes recommendations to the Foundation's Board of Trustees. The Board then makes the final

approval of the selected Fellows. In 2016, 18 nominees will be selected to receive the Packard Fellowship award. Packard Fellowships are awarded without regard to age, race, national origin, citizenship, religion, gender, sexual orientation, or physical disability.

## Timing of Awards

**January 31, 2017** - Requests for nominations will be sent to university presidents.

**February 15, 2017** - The Foundation's online application system will be available to nominees and referees on [fellows.packard.org](http://fellows.packard.org).

**March 15, 2017** - Nominations are due to the Foundation

**April 20, 2017** - All application materials (described below) must be submitted to the Foundation.

**October 16, 2017** - Awards will be announced

## Nomination and Application Requirements

Please note that nominees will not be able to access the online application system until they have been identified to the Packard Foundation.

1. A completed nomination form from the president of the university. The nomination form, which will be mailed to the universities with the request for nominations, should state the nominee's name and contact information including email address, departmental affiliation, sponsoring institution's name, and president's name and address. It should not include any written comments.
2. An online submission by each nominee should include the following:
  - Complete contact information
  - Departmental and institutional affiliation(s)
  - Disciplinary field(s)

- Educational background
- Professional positions held
- Honors and awards
- Current external research support
- Publications
- Research statement

The research statement should describe why the research is important and outline the general goals for the next five years. The statement should also indicate, in general, how funds will be used. This does not need to be a detailed budget and will not be binding on the actual use of funds. The research statement is limited to 1,400 words (maximum two pages of text, prepared in 12-point font with 1-inch margins). If there are relevant figures, images or references, please include these separately on a third page.

3. Four letters of recommendation that include the following:

- A recommendation from the nominee's department head, which should describe first-hand knowledge of the nominee's ability to do creative research. Nominees with joint appointments may submit a single letter signed by both department heads. Emphasis in this letter should be given to information not available in other letters of recommendation.
- Recommendations from three people outside the nominee's university who are personally familiar with the nominee's work and creative ability. At least one recommendation must be from a person who has had no supervisory or collaborative contact with the nominee.

Letters of recommendation may be submitted through file upload on the Foundation's online application system or sent directly to Foundation staff

by email or standard mail. Due to poor reproduction, letters should not be submitted by facsimile. Letters should not exceed two pages, and should be prepared in 12-point font with 1-inch margins. It should be noted that the referee will not have access to the online system until the nominee enters their name and contact information into the system.

### Reporting Requirements

The Packard Fellowship Program seeks to keep reporting requirements to a minimum for active Fellows. However, because this award is dependent upon satisfactory research progress, Fellows must file annual narrative and financial reports.

- The narrative report must be filed online ([fellows.packard.org](http://fellows.packard.org)) by October 15 of each year and consists of a brief, two-page description of research progress, a publication list, and updated curriculum vitae information.
- The financial report must be submitted by December 31 of each year and should outline actual expenditures and the award balance for the reporting period, as well as cumulative figures for the entire grant period. The financial report should be submitted by a university's financial office on behalf of the Fellow.

Fellows within the first five years of their fellowship will be invited to participate in the annual Packard Fellows Meeting, which is held each fall in Monterey, California. Fellows are expected to give an oral presentation on their work in their first and fifth years and are encouraged to make poster presentations in other years.

## **Fellowship Advisory Panel**

Richard B. Alley, Pennsylvania State University

Kristi A. Anseth, University of Colorado at Boulder

Frances H. Arnold, California Institute of Technology

Jennifer A. Doudna, University of California, Berkeley

Martin Gruebele, University of Illinois, Urbana-Champaign

Cynthia Kenyon, University of California, San Francisco

Andrei Y. Okounkov, Columbia University

Stephen R. Quake, Stanford University

Robert J. Schoelkopf, Yale University

Christopher W. Stubbs, Harvard University

Eva Tardos, Cornell University

## **Invited Institutions**

Arizona State University

Brown University

California Institute of Technology

Carnegie Mellon University

Columbia University

Cornell University

Duke University

Georgia Institute of Technology

Harvard University

Johns Hopkins University

Massachusetts Institute of Technology

Michigan State University

New York University

Northwestern University

Ohio State University

Pennsylvania State University

Princeton University

Purdue University

Rice University

Stanford University

Texas A&M University

The State University of New Jersey – Rutgers

University of Arizona

University of California, Berkeley

University of California, Davis

University of California, Irvine

University of California, Los Angeles

University of California, San Diego

University of California, San Francisco

University of California, Santa Barbara

University of California, Santa Cruz

University of Chicago

University of Colorado, Boulder

University of Illinois, Urbana-Champaign

University of Maryland, College Park

University of Michigan

University of Minnesota – Twin Cities

University of North Carolina, Chapel Hill

University of Pennsylvania

University of Pittsburgh

University of Rochester

University of Southern California

University of Texas at Austin

University of Texas, Southwestern Medical Center

University of Utah

University of Virginia

University of Washington

University of Wisconsin – Madison

Washington University in St. Louis

Yale University

## **Program Modifications**

This program may be modified from time to time as experience is gained from its operation. Suggestions for modification will be solicited on a continuing basis from the Fellowship Advisory Panel and from the Fellows. The Board of Trustees of the David and Lucile Packard Foundation reserves the right to make any changes it considers desirable at any time.

## **How To Reach Us**

### **Fellowships for Science and Engineering**

Conservation and Science Program  
The David and Lucile Packard Foundation  
343 Second Street  
Los Altos, California 94022  
Phone: 650-917-7275  
Fax: 650-948-2957  
Email: [fellows@packard.org](mailto:fellows@packard.org)

The online application and reporting system is found at [fellows.packard.org](http://fellows.packard.org).

Limited Submission Opportunity

## Packard Fellowships for Science and Engineering

Internal Proposal Deadline – 9:00 a.m. on Friday, February 5, 2016

**WHAT:** The Packard Fellowships for Science and Engineering were established to provide support for unusually creative assistant professors early in their careers to pursue their science and engineering research with few funding restrictions and limited paperwork requirements. Faculty members who are well established and well-funded are less likely to receive the award. It is further the intent of the Foundation to emphasize support for innovative individual research that involves the Fellows, their students, and junior colleagues, rather than extensions or components of large-scale, ongoing research programs. In 2016, eighteen recipients will receive individual grants of \$875,000 distributed over five years. Of the \$175,000 paid each year, \$17,500 is available to the university as compensation for administrative costs.

**PROGRAM EMPHASIS:** Disciplines that will be considered include physics, chemistry, mathematics, biology, astronomy, computer science, earth science, ocean science, and all branches of engineering. Candidates engaged in research in the social sciences will not be considered.

**An Information Sheet is available with additional information about the award history and attributes of ideal applicants at:** <http://researchinitiatives.columbia.edu/node/128>. Potential applicants are strongly encouraged to review this information prior to submitting an internal proposal.

**WHO:** The following eligibility terms apply.

1. Candidates must be faculty members in the first three years of their faculty careers. Only those who started their first faculty appointment between May 31, 2013 and May 31, 2016 are eligible – no exceptions.
2. This program is not appropriate for researchers employed in labs of senior researchers, or those conducting work that is an extension of a senior researcher's work.

**WHEN:** Internal Proposal deadline – 9:00 a.m. on Friday, February 5, 2016  
Sponsor deadline – March 14, 2016

**HOW:** The internal proposal must include the following 6 components.

1. Cover Page with candidate's name, title, department, contact information, and start date of first faculty appointment
2. Lay Abstract (limited to one page). In lay terms describe the importance and potential impact of the proposed research.
3. Research Statement (limited to 1400 words, maximum two pages of text, prepared in 12-point font with 1-inch margins). If there are relevant figures, images or references, please include these separately on a third page. The research statement should describe
  - a. why the research is important;
  - b. the general goals for the next five years; and,
  - c. how funds will be used. This does not need to be a detailed budget.
4. Candidate's Biosketch or CV (all dates should note the month and year)
5. Letter of Recommendation (limited to two pages, 12-point font with 1 inch margins) from the candidate's Department Chairperson which should describe first-hand knowledge of the nominee's ability to do creative research.
6. Funding List providing a summary of all current and pending funding (program, sponsor, start, end, and amount).

Please combine the 6 components of the internal proposal in a single PDF file and submit by email to [gcc19@columbia.edu](mailto:gcc19@columbia.edu) and [mb3952@columbia.edu](mailto:mb3952@columbia.edu) by no later than 9:00 a.m. on Friday, February 5, 2016. The subject heading of the email should be "2016 Packard Fellowships."



Applicant #1, Assistant Professor, Earth & Environmental Sciences  
Start Date: September 1, 2016

Cover Page  
Lay Abstract  
Research Statement  
CV  
Letter of Recommendation  
Funding List

Applicant #2, Assistant Professor, Astronomy  
Start Date: February 12, 2015

Cover Page  
Lay Abstract  
Research Statement  
CV  
Letter of Recommendation  
Funding List

Applicant #3, Assistant Professor, Electrical Engineering  
Start Date: June 3, 2016

Cover Page  
Lay Abstract  
Research Statement  
CV  
Letter of Recommendation  
Funding List

Applicant #4, Assistant Professor, Neuroscience  
Start Date: December 18, 2013

Cover Page  
Lay Abstract  
Research Statement  
CV  
Letter of Recommendation  
Funding List

Applicant #5, Assistant Professor, Business  
Start Date: January 1, 2014

Cover Page  
Lay Abstract  
Research Statement  
CV  
Letter of Recommendation  
Funding List