# Packard Fellowships for Science and Engineering



# 2023 Guidelines

The <u>Packard Fellowships for Science and Engineering</u> <u>Program</u> 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 was 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 <u>Fellowship Advisory</u> <u>Panel</u>, comprised of distinguished scientists and engineers. 20 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 the past 34 years, the Foundation has awarded \$464 million to support over 670 scientists and engineers from 55 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 Nobel Prizes in Chemistry and Physics, Fields Medals, Alan T. Waterman Awards, Breakthrough Prizes and elections to the National Academy of Sciences, Engineering and Medicine.

# 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.

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## **Diversity, Equity, and Inclusion**

The Foundation's goals and how we carry out our work reflect our commitment to diversity, equity, and inclusion. In 2021, the Foundation <u>piloted</u> a program to offer additional funding support to Fellows for activities that help increase diversity and representation in science and engineering – whether in their research group, department, university, or scientific fields. The second year of the pilot began in 2022 and will continue into 2023. An invitation and details regarding this diversity funding support will be shared with the 2023 Fellows at the beginning of their grant period.

#### 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, 2020, and no later than May 31, 2023.

The Foundation will host "Nomination Office Hours" for faculty members who might have specific questions about their eligibility for the 2023 Packard Fellowships. These meetings are optional and will not have any influence in the review process. Please click <u>here</u> to sign up for an appointment.

#### 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 2023, 20 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, 2023 - Requests for nominations will be sent to university presidents.

**February 15, 2023** - The Foundation's online application system will be available to nominees and referees on fellows.packard.org.

**March 15, 2023** - Nominations are due to the Foundation.

**April 20, 2023** - All application materials (described below) must be submitted to the Foundation.

October 16, 2023 - 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.

- A completed nomination form from the president of the university. The nomination form, which will be emailed 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 12point 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. 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 reports and a final financial report.

- A narrative report must be filed online (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.
- A final financial report must be submitted by December 31 of the final year of the Fellowship. The report should outline actual expenditures for the entire grant period. The financial report

should be submitted by the 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 S. Anseth, University of Colorado at Boulder Martin Gruebele, University of Illinois, Urbana-Champaign Erich Jarvis, Rockefeller University Celeste M. Nelson, Princeton University Andrei Y. Okounkov, Columbia University Franklin M. ("Lynn") Orr, Stanford University Stephen R. Quake, Stanford University Robert J. Schoelkopf, Yale University Christopher W. Stubbs, Harvard University Eva Tardos, Cornell University Sarah Tishkoff, University of Pennsylvania

# **Invited Institutions**

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 New York University Northwestern University Ohio State University

Pennsylvania State University Princeton University **Purdue University Rice University** Stanford University SUNY at Stony Brook **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 Vanderbilt University 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 modifications 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

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The online application and reporting system are found at fellows.packard.org.