

The Packard Fellowships for Science and Engineering



2021 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 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 Fellowship Advisory Panel, 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 32 years, the Foundation has awarded \$447 million to support over 630 scientists and engineers from 54 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 Science, 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 reflects our commitment to diversity, equity and inclusion. Beginning with the 2021 Packard Fellows, the Foundation will pilot a program to offer additional funding support to Fellows for activities that will help increase diversity and representation in science and engineering – whether in their research group, department, university or scientific fields. An invitation and details regarding this diversity funding support will be shared with the 2021 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, 2018, and no later than May 31, 2021.

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 2021, 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, 2021 - Requests for nominations will be sent to university presidents.

February 15, 2021 - The Foundation's online application system will be available to nominees and referees on fellows.packard.org.

March 15, 2021 - Nominations are due to the Foundation.

April 20, 2021 - All application materials (described below) must be submitted to the Foundation.

October 15, 2021 - 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 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 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. 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 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 S. Anseth, University of Colorado at Boulder

Frances H. Arnold, California Institute of Technology

Martin Gruebele, University of Illinois, Urbana-Champaign

Erich Jarvis, Rockefeller 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

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

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