

STANFORD UNIVERSITY DISCOVERY SCIENCE RESEARCH FUND

As the Science Philanthropy Alliance has highlighted in recent months, it is critical to increase private support for basic discovery science at our universities in the face of declining government research funding. Unless we take a new direction, America's preeminence in science and innovation is at risk. Universities and philanthropic leaders will need to increase efforts to educate the public about the importance of basic science and the value of long-term scientific investments. To this end, Stanford University will explore creating a new fund to attract and award private philanthropic support for basic discovery science conducted throughout the university.

Flexible funding to support scientists conducting basic research is invaluable to those recipients and to the future of basic research. Many faculty researchers, particularly more junior faculty, are struggling to gain access to funding for early-stage work. Federal research funding continues to shrink, and in many fields grant programs have become both highly restricted in topics and intolerant of risk. Such conditions threaten the research excellence and innovation that have made the United States the world leader in science and technology.

In response, Stanford and many of the nation's other leading research universities are making a concerted effort to encourage philanthropists to explore the critical value of funding for more basic discovery research. Stanford will model its new basic research fund on existing competitive internal seed fund programs in interdisciplinary biosciences, energy, and the environment. Designed to encourage innovative, "high risk" work, these "venture fund" programs award relatively small amounts of support at critical junctures for early-stage interdisciplinary, multi-investigator projects that would likely not find other sources of funding. These innovation seed grants are awarded through an internal proposal process, with award decisions made by a peer review committee comprising faculty from multiple departments and schools.

We envision a similar, but broader and more flexible, Discovery Science Research Fund that would support basic research in any scientific field.

The Discovery Science Research Fund would be administered at the university level by the Vice Provost and Dean of Research on behalf of the broader university community. The Vice Provost's committee of senior associate deans from Stanford's schools of humanities and sciences, engineering, medicine, and earth sciences would conduct the review of proposals in a manner similar to the successful processes used to select limited-award nominations for opportunities such as the Packard Foundation Fellows in Science and Engineering.

Any faculty member or team of faculty members would be able to apply for support from the Discovery Science Research Fund. The logistics would be:

- There would be an open application process, with proposals reviewed quarterly.
- Proposals must meet the following criteria:
 - The project addresses a basic science problem (versus applied science or technology)
 - The research is novel and early stage
 - The project would likely not receive federal or other funding (e.g., it is early stage, “high risk” or outside the scope of other grant programs)
- To foster maximum flexibility and responsiveness, we would avoid setting an arbitrary dollar cap and would award a range of grant sizes over one to multiple years of work, depending on the nature of the project being proposed.
- Funding may be used to support:
 - Graduate students
 - Postdoctoral fellows
 - Research supplies and equipment
 - Travel to scientific meetings
 - Other research-related expenses as appropriate
- There would be a preference for younger faculty.

In association with the Discovery Science Research Fund, the Vice Provost and Dean of Research would engage a group of senior faculty to serve as mentors to young investigator recipients to advise them in building their scientific programs and research funding base going forward.

Once we have sufficient resources available in the Discovery Science Research Fund, we would commence awarding grants, beginning with a smaller number of more modest grants until the fund reaches a corpus of approximately \$10,000,000. Then we might set up the fund as “quasi-endowment,” meaning that portions of the corpus may be used, not just the interest earned. This would help guarantee a steady flow of seed funds over an indefinite period of time. For this fund to have a significant impact in the face of declining federal funding, we estimate that a corpus of \$50,000,000 would be a minimum objective.