

UNIVERSITY OF CALIFORNIA, BERKELEY PHILANTHROPY FOR BASIC RESEARCH IN THE SCIENCES

Berkeley is deeply aligned with the mission of the Science Philanthropy Alliance and shares its strong belief in the abiding importance of basic science. From the invention of the cyclotron and other pioneering science across the decades to current groundbreaking work in genomic engineering, discovery-driven research is at the heart of our institutional enterprise. We know from experience that the basic scientific research championed by the philanthropists and universities in the Science Philanthropy Alliance — the fundamental research that leads to the most significant breakthroughs — is as critical to the public good as it is to our country's economic vitality.

Berkeley also shares the Alliance's recognition that private philanthropy is coming to play an increasingly important role in supporting basic scientific research. We look forward to joining in its efforts to advocate with new and established philanthropists for sustaining such basic research. **What is more, we view participation in the Science Philanthropy Alliance as an opportunity to expand and deepen awareness of the importance of basic science across our institutional advancement effort, as well as to create ways for donors at any stage in their philanthropic development to support it.**

Berkeley's Plan to Build Support for Basic Scientific Research

Increasingly, philanthropists who support our research institutions predicate their investment on accountability and require demonstration of its outcomes. For the most part, this results-driven approach has had a positive impact on our ability to attain remarkable achievements. However, this trend has also begun to place pressure on how we represent the merits of research programs whose outcomes are necessarily unforeseen.

Supporting basic research requires investing in the freedom of the best minds to pursue discoveries at the frontiers of knowledge; it entails tolerance for taking risks and for the kind of unconventional thinking that has the potential to revolutionize understanding. It also means having the flexibility to provide all types of support — for people, facilities, instrumentation — to answer needs and remove impediments as research takes its course.

Justifiably, philanthropists want evidence that their investment is being used wisely and effectively. Berkeley intends to address this issue head-on by making support of basic research consistent with the directives of high-impact, results-driven philanthropy. **The key to giving donors confidence is to show that we are rigorous and effective in identifying the best, most creative and innovative minds** — people, as opposed to research projects or predicted outcomes. We aim to instill in our potential donors an unshakeable confidence that they are supporting the very best scientific minds at our

university, researchers who are frequently the best in their fields, or who are in the midst of forging new, multidisciplinary fields. While the destination may be difficult to predict, the caliber of the people blazing these new paths is predictably exceptional. We plan to take a broad approach by supporting the best minds at all stages of their careers: from graduate students and postdocs, to early-career faculty, to established, senior faculty. Our experience tells us that philanthropic investment in these innovative minds will have a tremendous impact over time.

Our plan is to make this approach a part of our fund-raising program at all levels, from conversations with philanthropists capable of making transformational gifts to communications and marketing geared toward donors at much more modest levels. By further integrating awareness of the importance of basic science into our fundraising culture and efforts, we will create a pipeline of basic science donors, some of whom will become the most significant private supporters of scientific research at Berkeley and beyond. **In other words, our objective is not only to secure gifts, but also to improve the University's overall advancement effort by deepening the presence of basic science in our philanthropic culture.**

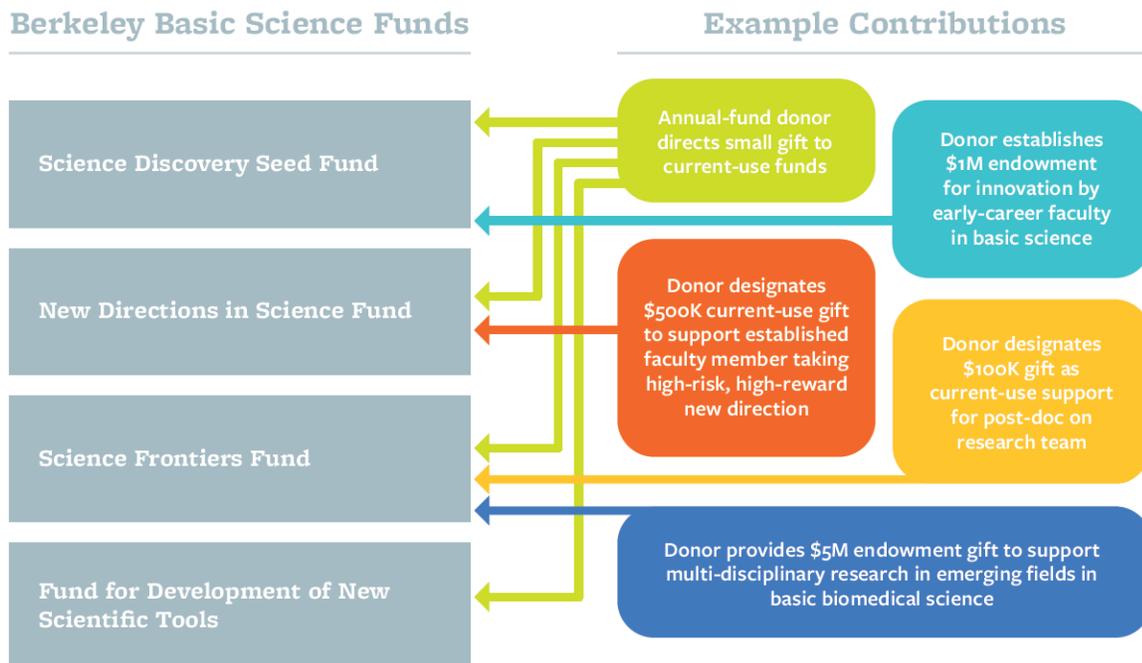
How It Will Work

These are the new giving opportunities we propose in order to support the very best minds pursuing fundamental scientific questions:

- **Science discovery seed fund** to provide flexible support to early-career faculty for the initial stages of basic research. Many funders, including federal agencies, tend to focus on efforts that are already well-developed, leaving a gap in support for pursuit of promising new ideas. Seed funding focused on early-stage research would allow our most creative early-career faculty to explore these ideas; it would also enhance their ability to compete at later stages for federal and other large-scale grant opportunities. Awards might be \$50,000 per year over a period of three to five years.
- **New directions in science fund** — Many of our mid-career faculty would like to change the focus of their research and apply their expertise, experience and research teams to new high-risk, high-reward basic research endeavors, often crossing disciplinary boundaries. However, without a proven track record in new territory, they may find it difficult to secure funding. This new fund would close the gap, providing awards of about \$250,000 per selected faculty member.
- **Science frontiers fund** — The most potentially transformational ideas frequently bring together teams of faculty and researchers from multiple fields in unanticipated combinations. This fund would provide flexible support for multi-disciplinary teams who are advancing the frontiers of knowledge by pursuing core scientific questions. Our experience suggests that — depending on the nature and stage of a project — teams of investigators can be catalyzed by a wide range of investments, from a \$50,000 jump-start grant for an initial symposium, to a \$1,000,000 multi-year award to support a sustained program of research.
- **Fund for development of new scientific tools** — Many of Berkeley's most talented and path-breaking scientists have transformed what is possible by inventing new instrumentation and technology to advance their research — from the cyclotron in the 1930s, to current work on streamlined bioanalytic tools. The campus's close proximity and partnership with Lawrence

Berkeley National Laboratory gives Berkeley an almost unique capacity in this regard. This fund would be devoted to support for developing new scientific tools that enable entire fields of study to advance. Awards might range from \$50,000 one-time grants to more significant, multi-year support.

These funds will be accessible to donors who give support at all levels, as suggested in the graphic below. At the same time, we are always interested in competing for and attaining transformational support for efforts in a scientific field or sub-field through “institute-sized” investments that could encompass various combinations of these funds and award mechanisms.



Governance

Giving donors confidence that their contribution in support of basic science is being used effectively requires a highly credible structure of leadership and vetting. We will need to demonstrate that while we are asking for a greater tolerance for risk, a high level of expertise is applied to deploying funds; this means not only evaluating science, but — even more — identifying the qualities of investigators who, with adequate support, are the most likely to embrace the unknown and revolutionize understanding.

Recipients will be selected by an interdisciplinary faculty committee on the basis of merit. Once the family of funds is funded at a significant level, we will establish a broader advisory board that includes external members to help select recipients and ensure that funds are distributed and used in the most effective possible way. The structures and processes governing use of the funds can be modeled on successful campus programs including the Bakar Fellows program, which differs in its focus on applied research but has an excellent record of selecting outstanding investigators engaged in high-impact research.

The advisory board will be composed of faculty leaders and external partners, appointed by the Chancellor and the Vice Chancellor of Research, with extensive experience of their own in fundamental research. Importantly, they will also need to have significant experience as mentors, so that their acumen and expertise will include recognizing the qualities in people that make for truly creative thinking and, ultimately, groundbreaking discoveries. The advisory board will ensure selection of awardees not only for excellence, but also for innovative thinking. It will define measures of success and monitor the funds' use to assure that the focus on fundamental, high-risk and high-impact research remains clear. Recipients of funds will report formally to the advisory board once each year.

Berkeley has a strong track record of supporting exceptionally talented scientists — and an excellent record of reaping impressive long-term returns on that investment. We are confident that we will be able to show donors that they have made a wise and important investment.

Areas of Particular Strength and Focus in Basic Science

At the end of 2013, Berkeley completed our most ambitious fund-raising campaign to date with great success, exceeding our goal and bringing in \$3.13 billion from more than 281,000 remarkable and visionary donors. As we look to the future and our next, even more ambitious campaign, we will intensify our efforts to identify areas of emphasis in basic science research that are relevant to potential funders and supported by strong faculty interest, robust infrastructure, and vibrant communities of investigators, with a full understanding of the increasingly multidisciplinary nature of paths to discovery.