

Accelerating Discovery Science

2023 ANNUAL REPORT



"The role of science, like the sculptor's chisel, is to continually chip away at the covering, so that what remains is an ever-closer approximation to the complete figure of nature's truths."

—Harvey Fineberg, Advisory Board Chair, Science Philanthropy Alliance, and President, The Gordon and Betty Moore Foundation

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Dear Valued Members and Colleagues,

This past year showcased the impact of decades of discovery science investment with major advances in gene therapy, AI, fusion energy, and our understanding of our universe. These breakthroughs reaffirm the Science Philanthropy Alliance's commitment to our mission to advance scientific discovery through visionary philanthropy.

We delivered on key elements of our strategic plan: to promote science philanthropy as an important contributor to the nation's research enterprise, and to attract new philanthropists to invest in science and promote collaboration and sharing of new approaches. We engaged our members at in-person events and advised new science philanthropists.

Using data from the National Science Foundation's National Center for Science and Engineering Statistics, we produced the *Science Philanthropy Indicators Report*, which highlighted philanthropy's growing role in advancing basic research at U.S. research institutions. It showed that there are opportunities for philanthropy to be a driver of underfunded areas.

Among our 2023 highlights were roundtables and special workshop events attended by hundreds of research institutions to learn about science philanthropy. We held Members' Meetings in Tucson and Raleigh-Durham, where members joined in person for stimulating discussions.

These meetings covered diverse topics such as utilizing art and AI to advance scientific research, addressing research challenges posed by environmental changes, unraveling the complexities of indirect costs related to philanthropic support at universities, and supporting fellowships for emerging scholars. We also held a Measurement, Evaluation and Learning (MEL) workshop in the UK where funders could share their outcomes.

To further ensure that our obligations to members were being met, the Board held its first retreat at the Santa Fe Institute and agreed on several important priorities for member collaborations in the coming year. The Board approved initiating a home base in New York City, thus moving us from a virtual to a hybrid organization.

Through these activities, we continue to foster a robust community of science philanthropists who share knowledge, exchange ideas, and collaborate on new initiatives. One such visionary philanthropist is Ross Brown, who donated \$400 million to Caltech to manage and operate the Ross Brown Investigators Program which supports researchers in chemistry and physics.

Overall, the Alliance completed 112 advisory projects for 55 advisees and influenced \$512 million in funding in 2023.

We also welcomed a new member, the Prebys Foundation, which has a strong commitment to diversity, equity, and inclusion, and through their grants seek to improve and to enhance the lives of San Diegans by contributing to the visual and performing arts, youth success, healthcare, and medical research.

Our member organizations share our commitment to fund discovery science for the benefit of humanity and the planet. We are proud to serve them and to provide the guidance they seek in bringing their endeavors to fruition. Together, we can make a lasting impact on our world.

Sincerely,



France A. Córdova, Ph.D.

President, Science Philanthropy Alliance

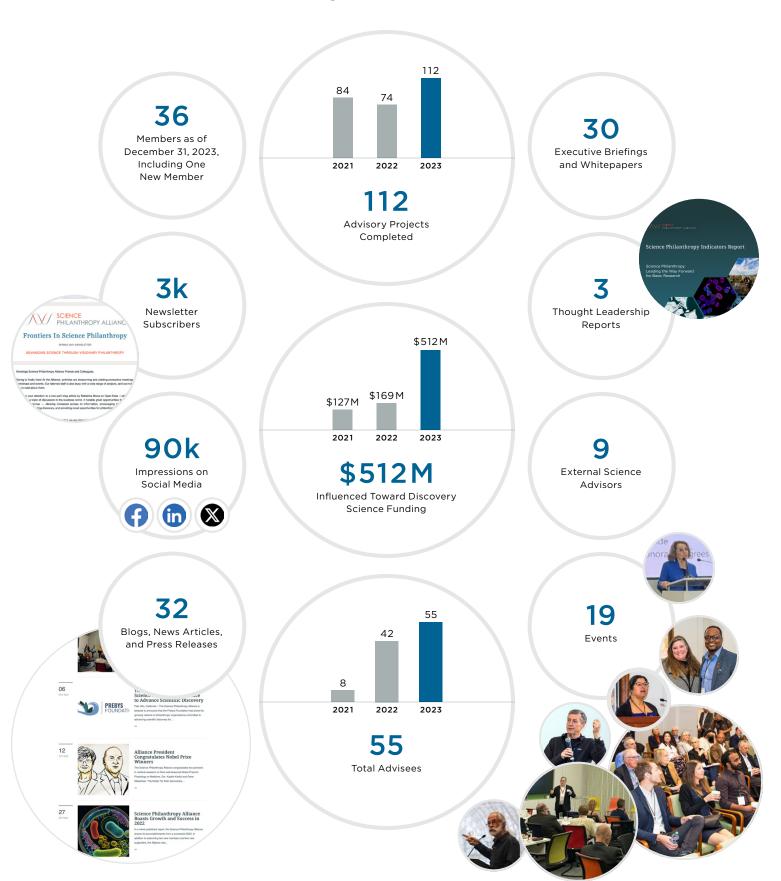


Harvey V. Fineberg, M.D., Ph.D.

Advisory Board Chair, Science Philanthropy
Alliance, and President, Gordon and Betty

Moore Foundation

Our Year in Review—By the Numbers



Our Mission, Vision, and Values

The Science Philanthropy Alliance is guided by a mission, vision, and set of values that realize the great power and promise of philanthropy for science.

Our Mission

is to advance scientific discovery through visionary philanthropy.

Our Vision

is to foster a world which increasingly supports and realizes the full benefit of scientific discovery.

Our Values

propel us to pursue and encourage learning, curiosity, and innovation; collaboration, sharing and partnerships; diversity, equity, and inclusion.



Connecting Ideas and People through Communications

As advocates for science philanthropy, we work closely with our stakeholders to create awareness and interest in basic research. We pursue the pillars of our strategic plan, generating new, impactful, and effective philanthropy for science.

We continue to set the standard for excellence in science philanthropy through the development and dissemination of cutting-edge research and insights. We supported our members and advisees through customized whitepapers, landscapes, and comprehensive member practice documents, providing invaluable guidance to individuals and foundation staff. By sharing that work more broadly, as appropriate, as well as our findings and perspectives, we enhance informed decision-making and foster a culture of continuous learning within the philanthropic sector.

In 2023, our leadership and staff elevated science philanthropy through editorials and articles in *The Chronicle of Higher Education* and *The Chronicle of Philanthropy*. We published numerous blog posts on supporting minority-serving institutions, advancing pain research, and promoting equity in science.

In partnership with the National Academies of Science, Engineering and Medicine (NASEM) Government-University-Industry Research Roundtable (GUIRR), Alliance staff presented at workshops that fueled discussions and deepened understanding around science philanthropy. Consequently, we are now working towards having philanthropy represented as a key sector of the research enterprise.

Alliance President, Dr. Córdova, who lectured frequently throughout the year, spoke about the impact and scale of science philanthropy to the GUIRR Council. Her presentation highlighted the Alliance's analysis of National Science Foundation (NSF) National Center for Science and Engineering Statistics data, which was the basis of our Science Philanthropy Indicators Report.

Over the course of the year, other activities included moderating as well as presenting at key scientific meetings. These activities not only increase our exposure but also reinforce the important role philanthropy plays in science.

The following are some of our key thought leadership offerings presented to Alliance members, other funders, and to the public.



Science Philanthropy Indicators Report

Federal funding has declined as a relative source of support for basic research at U.S. universities and nonprofit research institutes from more than 75% in the 1960s to approximately 50% in 2021—while government support for applied research continues to grow.

The *Science Philanthropy Indicators Report* dives deeply into NSF data examining basic research in the United States through a philanthropic lens focusing on higher education and nonprofit research sectors. Our report illustrates the significant role that philanthropy plays in supporting basic research and demonstrates the value of engaging with philanthropy as a key driver of innovation.



Opportunities and Gaps in Science Philanthropy

"Another underfunded area is food security, i.e., plant microbiology, soil dynamics, climate change, and its impacts. This is a truly important area."

-Shirley M. Tilghman, Ph.D., External Science Advisor

Our world is in flux, and at every turn, we are confronted by serious issues related to climate change, food insecurity and more. When deciding which areas to support, funders have often asked us, "How do we stay at the cutting edge of science that is being developed?" and "Where is funding needed most?" The Science Philanthropy Alliance works not only to increase funding but also to educate philanthropists in making judicious and satisfying investments. In June 2023, the Alliance convened its external science advisors

(ESAs) and several philanthropic leaders for a virtual discussion. During the meeting, they identified funding opportunities that could play a vital role in advancing scientific knowledge and innovation, especially in areas that are underfunded, risky, or interdisciplinary. Our ESAs, chosen for their professional accomplishments, expertise, and vast networks of science professionals, were free to think broadly about the most promising and impactful issues facing society today. *Opportunities and Gaps in Science Philanthropy* represents their collective wisdom.



Staying Ahead of Emerging Issues

Twenty percent or more of America's adult population lives with chronic pain but less than 2%-3% of the National Institute of Health budget goes toward its research. That is why the Science Philanthropy Alliance has highlighted chronic pain as one of several underfunded research areas for philanthropists looking to make informed, effective, and rewarding investments in scientific research.

Our team strives to diligently address the needs of our members and individual funders. One of the tenets of the Alliance is to keep our members and funders ahead of emerging issues with timely and topical analyses driven by their interests. These analyses help them formulate strategies and respond effectively to the insights we uncover.

Our events promote partnerships, encourage peer-to-peer interaction, and facilitate shared learning. In 2023, the Alliance expanded our array of workshops, meetings, and events to enhance the work of our community.

We organized a virtual meeting for more than 270 research and development leaders, convened astrophysicists at Bunker Hill Farms near Chicago, and held our first Advisory Board retreat in Santa Fe.

We engaged funders in London and New York in September, and in Texas in October. Throughout the year, we hosted 18 Shared Interest Group meetings on diversity, equity, and inclusion, and measurement, evaluation, and learning.

At every event, attendees deepened their knowledge, gained greater insights from experts in the field, shared their perspectives with their peers, and expanded their network of professional connections.

"The Alliance takes an active leadership role researching, collecting, curating and disseminating content to our community through education and information exchanges. Our meetings, workshops, and panel discussions serve to inspire and direct our members toward making meaningful investments in discovery science."

France Córdova, Ph.D.,
 President, Science Philanthropy Alliance

SPOTLIGHT:

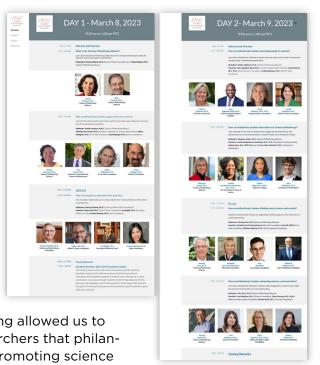
Virtual Research Institutions Meeting

MARCH 2023

"Foundations are well positioned to bring people together across institutions and across disciplines to realize the kind of inclusive environment that we want to create for science today." —Daniel Linzer, Ph.D., President, Research Corporation for Science Advancement

Our March 2023 Virtual Research Institutions Meeting allowed us to reach more than 100 institutions that were new to the Alliance's work. Foundation and research institution leaders shared how they value discovery science, set priorities, consider equity, and

engage with research. Post-meeting resource sharing allowed us to efficiently reach the research institutions and researchers that philanthropy supports. This advanced our objectives of promoting science philanthropy and improving the effectiveness of giving.



SPOTLIGHT: Spring Members' Meeting, Tuscon, Arizona MARCH 2023



SPOTLIGHT: Astrophysicists at Bunker Hill Farms, Chicago, Illinois JUNE 2023

"Bunker Hill provided an ideal, structured framework and venue for connecting with experts. Our discussions were constructive and enlightening and yielded many benefits." —John C. Mather, Ph.D., Senior Astrophysicist, NASA and Nobel Prize laureate in Physics

An Alliance member foundation sponsored a gathering of a dozen astrophysicists at Bunker Hill Farms in Chicago, Illinois, to discuss the most exciting areas of opportunity in their field. The meeting outcomes included novel projects proposed and considered for philanthropic funding, new insights about the gap between funders and researchers, and enthusiasm to continue this kind of interactive venue.





SPOTLIGHT: Wellcome Hosts UK Measurement, Evaluation, and Learning Workshop in London, England SEPTEMBER 2023

"I was missing a group of experts and peers, then I found it here." —Samuel Kembou, Jacobs Foundation

"[Measurement, evaluation, and learning is] a complex process so there's no simple answer. Wellcome is moving toward a portfolio assessment framework that encourages context-specific data gathering, analysis, and decision making." —Peter O'Donovan, Wellcome

With Alliance member organization Wellcome, we hosted a September 2023 member and advisee workshop in London focused on perspectives and lessons learned from our Measurement, Evaluation, and Learning Shared Interest Group.

We welcomed 54 attendees from 37 different organizations and were able to capture key takeaways to help funders improve their impact and effectiveness. This event was a meaningful opportunity to engage with an international funding community and contribute as a convener.



SPOTLIGHT: Members' Meeting in Raleigh-Durham, North Carolina NOVEMBER 2023



Customized Services to Match Philanthropists at Each Stage of Their Journey

The Alliance's expert philanthropic advisors and external science advisors provide advice to new and emerging philanthropists and foundations, enabling them to support scientific research, either for the first time or at a higher level than before and with more confidence and satisfaction.

1. INTRODUCTION & EXPLORATION

- → Defining Mission & Vision
- → Developing Strategies to Advance Visionary Philanthropy
- → Exploring Funding Mechanisms
- → Benchmarking
 Performance

2.CONNECTION & DATA GATHERING

- → Connecting Scientists & Funders
- → Convening Funder Discussions & Events
- → Informing Funders through Landscape Analyses

3.INVESTMENT

- → Crafting Partnerships
- → Supporting Grant Proposal Solicitations
- → Sourcing Funding Opportunities
- → Vetting Proposals



The Alliance at Work

We help philanthropists navigate the rapidly changing world of science philanthropy so they can achieve long-lasting results for their communities and for society.

Toward this end, the Alliance draws on the collective talents and experiences of our External Science Advisors, research analysts, fellows, and staff to provide advisory services tailored to each philanthropist's needs.

Our Advisory Services provide unmatched research capabilities, in-depth analyses, and actionable recommendations.

Underwritten by our members, our services are driven by funders' interests with all recommendations reflecting the highest scientific quality, credibility and objectivity.

The following are examples of our work.



The Prebys Foundation

Improving the Medical Research Ecosystem in San Diego

SITUATION

The Prebys Foundation is a nonprofit leader and change agent in the lives of San Diego County residents with grants that support arts and culture, youth success, healthcare and medical research. In 2023, the foundation spent months meeting with and engaging local researchers, philanthropists, and community leaders so that they could understand the value of greater investments in medical research. Through their conversations, it became evident that philanthropy could play a critical role in bringing more diverse perspectives into the laboratory thereby yielding ground-breaking medical research—but how?

CHALLENGE

Determined to make an impact, the foundation had a plan but not the requisite experience needed to evaluate all the facets of creating and implementing an effective science grantmaking program. They partnered with the Alliance to assist in identifying goals and objectives to help assess possible programs and approaches that would support their goals of contributing to cutting edge medical research. At the same time, the foundation sought to recruit and retain a scientific workforce that represented their local community.

SOLUTION

In response to these discussions, the foundation launched an award program, which provides a total of \$500,000 over a span of two years (\$250,000 per year) to 14 researchers who are studying a vast array of potential treatments for diseases ranging from autoimmune disorders to infectious diseases and more.

The Alliance, in tandem with Prebys, developed the strategy behind and executed the Prebys Research Heroes Program. Our efforts encompassed tasks such as creating the RFP, engaging with stakeholders to identify nominees, overseeing the proposal evaluation process, announcing the recipients, and implementing the grants administration.

The award program is expected to disburse more than \$7 million and serve as a catalyst in creating a more innovative, equitable, and collaborative research ecosystem. This investment will no doubt pay enormous dividends in the future for the health and well-being of millions of San Diegans.

Acknowledging that the award initiative alone was insufficient for achieving a more equitable research environment in the region, the Prebys Foundation, in consultation with the Alliance, provided \$1.5 million in supplementary grants aligned with their goals. The funds supported eight notable research leaders whose work aligns with the Research Heroes program. Additionally, each of the ten institutions invited to submit for the Research Heroes program received \$100,000 to be used towards recruiting a diverse group of postdoctoral researchers to the county. Funds were also used in collaboration with the Shanahan Family Foundation to provide training resources to Research Hero grantees and their trainees through the Research Theory Program.





"Investing in a diverse set of researchers will yield better outcomes that will benefit us all. We know that when more and different people are in the lab, the standard for research and thus our future is brighter, healthier and more inclusive. We are grateful to our research heroes, the institutions that host them, and our partner at the Science Philanthropy Alliance for their willingness to collaborate."

-Grant Oliphant, CEO, The Prebys Foundation

"This was an enormously gratifying project, which aligns closely with the Alliance's mission of supporting philanthropists while eliminating the challenges associated with funding fundamental research. We felt very fortunate to partner with the Prebys Foundation in building a science philanthropy strategy that marries the foundation's desire to support both rigorous and equitable scientific discovery. We look forward to seeing the impact of their long-standing commitment to community, DEI, and fundamental medical research."

-Elizabeth Weiss, Senior Director, Science Philanthropy Alliance

Brown Institute for Basic Sciences and the Brown Investigator Program

Ross Brown—Journey of a Philanthropist

SITUATION

Ross Brown, after selling his company Cryogenic Industries in 2017, approached the Science Philanthropy Alliance for consultation on making a significant philanthropic impact. He intended to give away the majority of his fortune but was unsure of how best to support "the restless scientific minds" whom he felt were most likely to accelerate research discoveries in the relatively underfunded areas of physics and chemistry. Alliance staff worked intensively with Brown to help him determine the most satisfying elements of his past giving and define the outcome most important to him.

One particularly effective strategy used was embedding Brown in a program like what he had begun to envision. The Alliance introduced him to the David and Lucille Packard Foundation, and he added a fellow to their three-decade-old program in exchange for observing the selection process from start to finish. This in-depth encounter gave him the confidence to establish the Brown Investigators Award program, forming a review committee chaired by the Alliance's then-President Marc Kastner. By 2023, the committee was distributing seven generous and unrestricted awards annually.

CHALLENGE

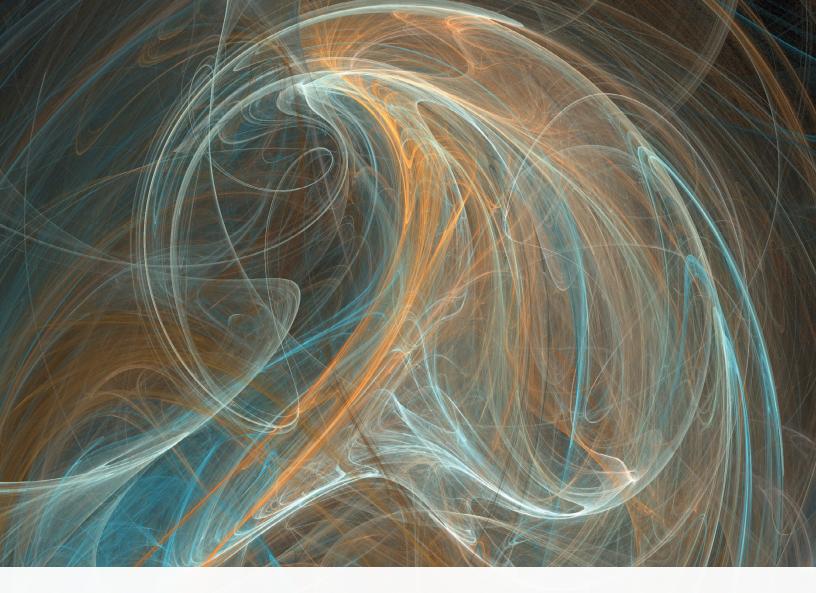
Once the design was complete and initial operation of the Brown Investigators Award program underway, Brown faced the challenge of ensuring that his philanthropic efforts would have a lasting and sustainable impact. He was concerned about high administrative costs and the possibility of mission drift over time. He shifted his aim to designing an effective long-term governance structure and, at the suggestion of Alliance leadership, began talks with Caltech, an institution he had known for decades as a dual alumnus and volunteer.

SOLUTION

Through personalized advice from the Science Philanthropy Alliance, Brown transferred \$400M to Caltech to establish the Brown Institute for Basic Sciences and the Brown Investigator Program. The program model is unique: it relies on an Institute housed at a university, rather than a foundation, to identify and fund compelling research, regardless of the researcher's university affiliation.

By the program's end in 2070, Brown will have provided generous and unrestricted funding to hundreds of carefully vetted scientists at a prime time in their professional lives, seeding opportunities for exploration that could help counter existential threats posed by climate change and pandemics—a world-changing legacy.





"From the beginning, my intent has been to support bold investigations with the potential for transformational discoveries that will ultimately benefit humanity."

-Ross Brown, Caltech Alumnus, Philanthropist

"It's been an honor to help Ross explore his options and a joy to see the culmination of his philanthropic journey, especially knowing how hard he worked to craft a legacy most meaningful to him."

-Sue Merrilees, Senior Director, Philanthropic Advising "Ross Brown's gift was unusual in its long-term vision, focus on fundamental science, and partnership with Caltech as a representation of shared values. We are grateful to the Science Philanthropy Alliance for working with Ross and Caltech to think through and develop this new philanthropic model."

—**Thomas F. Rosenbaum**, *President*, Caltech, and Sonja and William Davidow Presidential Chair and Professor of Physics

More Alliance Success Stories

Gene Therapy for Alzheimer's Disease— Strategy Development

Alzheimer's Disease (AD) is a devastating neurodegenerative disease affecting the brain. Its symptoms are varied while its origin remains a mystery.

For a major family foundation seeking to make an impact on AD funding, the Alliance identified gene therapy for AD as a promising direction for science funding. This project consisted of evaluating various funding opportunities in the field in parallel with the family's past giving. Analyses culminated in key recommendations for future targeted investments by the family.

The work, which was exhaustive, included an update on the state of gene therapy's therapeutic potential, analysis of the foundation's past support of AD research, and the identification of five research groups pioneering gene therapy approaches to combat AD.

Exploring Environmental DNA (eDNA)

Environmental DNA (eDNA) is a field that presents enormous potential for further study, especially regarding biodiversity.

Scientists today can examine genetic material shed by marine life and organisms to determine the state of our oceans and the seafloor, waterways, and marine species.

When one advisee sought to develop a funding program in eDNA, the Alliance completed a landscape analysis that explored the research needs and opportunities for eDNA science and technology.

As our advisee's interests evolved, we provided a deeper dive into the field specifically around data collection.

These success stories illustrate the importance of strategic philanthropy in advancing scientific research and highlight the role of personalized guidance in helping philanthropists achieve their goals.



Advisory Board



Elizabeth Good Christopherson *President and CEO*, Rita Allen Foundation



France Córdova, Ph.D. President, Science Philanthropy Alliance



Adam F. Falk, Ph.D.

President,

Alfred P. Sloan Foundation



Harvey V. Fineberg, M.D., Ph.D. Advisory Board Chair, Science Philanthropy Alliance; President, Gordon and Betty Moore Foundation



Cynthia M. Friend, Ph.D. *President*,
The Kavli Foundation



Daniel Linzer, Ph.D. *President,*Research Corporation for Science Advancement



Caroline Montojo, Ph.D. President, Dana Foundation



Louis Muglia, Ph.D.

President and CEO,

Burroughs Wellcome Fund



Claire Pomeroy, M.D., M.B.A. President, Albert and Mary Lasker Foundation



Sushma Raman, M.P.A. *President and CEO*,

Heising-Simons Foundation



David Spergel, Ph.D. *President*, Simons Foundation

External Science Advisors



Thomas R. Cech, Ph.D.
Distinguished Professor
of Biochemistry,
University of Colorado Boulder



Fleming Crim, Ph.D.
John E. Willard and Hilldale
Professor of Chemistry Emeritus,
University of Wisconsin-Madison



Marc Kastner, Ph.D.

Donner Professor of Physics Emeritus,
MIT; Adjunct Professor of Physics,
Stanford University



Margaret Leinen, Ph.D.
Director of Scripps Institution
of Oceanography and
Vice Chancellor for Marine Science,
University of California, San Diego



Carla J. Shatz, Ph.D.*
Sapp Family Provostial Professor of
Biology and Neurobiology and the
Catherine Holman Johnson Directorship
of Bio-X, Stanford University



Shirley M. Tilghman, Ph.D.
President Emerita and Professor
of Molecular Biology and Public Affairs,
Princeton University

EMERITUS ADVISORS



David Baltimore, Ph.D. President Emeritus, Caltech



Robert Joseph Birgeneau, Ph.D. Former Chancellor, University of California, Berkeley



Robert Tjian, Ph.D. Former President, HHMI; Biochemist, UC Berkeley

^{*} After 2023, Professor Shatz became an Emerita Advisor.

Alliance Team

We promoted neuroscience fellow, **Dr. Bishakha Mona**, and civic science fellow, **Dr. Daren Ginete**, to associate advisors, and promoted infectious disease fellow, **Dr. Andrew Golnar**, to research analyst. We also hired **Dr. Sreeja Asokan** as a research analyst and **Dr. Elyse Hope** as a strategic initiative manager to augment our capacity to serve our members and to engage our research institutions.



France A. Córdova, Ph.D. *President*



Sreeja Asokan, Ph.D. Research Analyst



Emily Bolton* Chief Operating Officer and Chief of Staff



Elenoa Fuka *Assistant Director of Operations*



Daren Ginete, Ph.D. Associate Advisor



Andrew Golnar, Ph.D. Research Analyst



Elyse A. Hope, Ph.D. Strategic Initiative Manager



Kate Lowry, Ph.D. Strategy Director



Kate McCarrel Program and Events Manager



Sue Merrilees Senior Director, Philanthropic Advising



Bishakha Mona, Ph.D. Associate Advisor



Kumba Sennaar* Civic Science Fellow



Mary Thurston Program Manager, Office of the President



Elizabeth Weiss Senior Director, Philanthropic Advising

Our thanks to Rose-Marie Brandwein, our *Strategic Communications Consultant*, **Stevon Burrell**, *Communications Specialist*, and **Michelle D. Novak**, MND, for helping create this annual report.

*Joined in 2024

Thank You to Our Members







































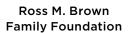








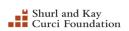
























As of December 2023, all members are listed except those who wish to remain anonymous.



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