# **Annual Report 2019**



Thank you to our board and members for supporting our mission of increasing philanthropic support for basic scientific research.



Marc Kastner, Donner Professor of Physics Emeritus, MIT; Adjunct Professor of Physics, Stanford University and Bob Conn, President & CEO, The Kavli Foundation

A special thanks to Marc Kastner, president, and Bob Conn, board chair, for their dedication to the mission, and their leadership in building the Science Philanthropy Alliance.

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## **Executive Summary**

Six visionary foundation leaders created the Science Philanthropy Alliance to ensure that there would be a pipeline of new philanthropists who choose to support basic science research. By engaging other philanthropists, science leaders, and assembling a staff, this team effort has led to extraordinary success. Over the first five years the Alliance pioneered a movement focused on increasing new commitments to basic science research. What the Alliance built works—advising without fees based on a membership model.

The Alliance is well-positioned to thrive in the current landscape. The need is acute. U.S. federal funding to basic science continues to decline. The opportunities are great. The number of billionaires globally has grown from 1,826 in 2015, to 2,153 in 2019. There will be \$48 trillion transferred by baby boomers to their heirs and charities in the next 25 years. These trends, new wealth, and anticipated transfers present a huge opportunity for the Alliance.

In 2019, the Alliance continued its momentum, advising 32 philanthropists and foundations on giving to science. Membership continued to grow, from 25 in 2018 to 30 at the end of 2019. New members were: Ross M. Brown Family Foundation, The Brinson Foundation, John Templeton Foundation, Winn Family Foundation, and an anonymous benefactor. Members continued their strong engagement with the Alliance's mission, providing referrals and support to new advisees. Members also engaged with the Alliance on improving the effectiveness of science philanthropy in addressing diversity, equity, and inclusion in science, and addressing the importance of focusing on scientific rigor in research culture. On these and other issues, Alliance members demonstrated interest in potential partnerships and collaborations with each other.

Importantly, the Alliance completed smooth and successful leadership transitions for the president and board chair roles. The board created a governance subcommittee to manage both transitions. At the end of 2019 the board named Valerie Conn (formerly executive director) as president to succeed Marc Kastner, who moved into the role of senior science advisor. Robert Conn (president & CEO, The Kavli Foundation), who completed his term as board chair at the end of 2019, was succeeded by Harvey Fineberg (president, Gordon and Betty Moore Foundation) as board chair.

With new leadership in place, the Alliance is poised for continued success in its next phase.

#### Accomplishments since 2015:

- **New funders:** The Alliance has helped 15 new funders support basic science and helped 5 existing funders expand their giving to basic science.
- **New money to basic science:** The Alliance has influenced more than \$1 billion in new funding to basic science research.
- **More advising:** The Alliance continues to work with more than 20 philanthropists to begin or expand their funding to basic scientific research.
- More members: The Alliance's membership has grown to 30.
- **High ROI:** Each dollar of support from members has influenced \$105 in private funding for basic science.

These accomplishments underscore the value of the Alliance to the science research community and to the science philanthropy community.

# A Brief History of the Alliance

The Science Philanthropy Alliance is a unique organization created by science funding organizations to encourage other philanthropists and foundations to fund basic scientific research, which is the foundation for all the discoveries that impact our lives. The following are some highlights in its history:

#### 2013-2014:

Six organizations—Alfred P. Sloan Foundation, Gordon and Betty Moore Foundation, Howard Hughes Medical Institute, The Kavli Foundation, Research Corporation for Science Advancement, and Simons Foundation come together to address the decline in federal funding to basic science. They create the Science Philanthropy Alliance, whose mission it is to increase private funding for basic science.

#### 2015-2016:

Marc Kastner, former dean of science at Massachusetts Institute of Technology, and Valerie Conn, an experienced science fundraiser, are hired. As a first step, they conduct market research to discover philanthropists' needs. They find that there is significant interest in supporting basic science, but that philanthropists need help in developing and executing their giving strategy. The Alliance begins to advise philanthropists and work with research partner institutions, with support from consultants David Baltimore (president emeritus, Caltech) and Robert Birgeneau (chancellor emeritus, Arnold and Barbara Silverman Distinguished Professor of Physics, Material Science, and Public Policy, University of California, Berkeley).

The Alliance and The Giving Pledge partner on a science philanthropy learning session for Giving Pledgers hosted by board member Jim Simons and Marilyn Simons (CEO, Simons Foundation).

The Alliance pilots its advising services. One of its first advisees, the Chan Zuckerberg Initiative, launches its science program in the fall of 2016. Six new members (some of whom are advisees) join to support the Alliance's mission.

#### 2017-2018:

In 2018, the Alliance continues to build a movement for private support of basic science and works with a growing number of advisees. The Alliance hires its first dedicated advisor, Sue Merrilees, and creates the Alliance Fellows program to support advising. Jason Tung, who has a Ph.D. in bioengineering, is the first science fellow, followed by Kate Lowry, who has a Ph.D. in environmental earth system science. Membership grows to 25 by the end of 2018.

#### 2019:

Marc Kastner retires at the end of 2019, and the Alliance board names Valerie Conn president of the Alliance. Board chair Robert Conn completes his five-year term and is succeeded by Harvey Fineberg. The Alliance hires Bishakha Mona, who has a Ph.D. in genetics, development, and disease, as a science fellow. Alliance membership grows to 30 and the number of advisees the Alliance works with continues to grow.

## The Science Philanthropy Alliance has these distinct characteristics:

- All members fund basic research.
- Members represent a broad range of models and stages for funding basic science.
- The Alliance has emerged as the community of basic science research funders who consistently convene to learn, fund, and create best practices.
- Advisees are not charged advising fees because operations are financially supported by the members.
- A culture of direct access to professional and unquestionable scientific credibility.

# **Influencing New Research Funding**

Advising philanthropists on effective giving to basic science is the core activity for the Science Philanthropy Alliance. In 2019, the Alliance advised more than 30 philanthropists and foundations; 16 of these are members of the Alliance. Eight of the Alliance's advisees were new in 2019. Most advisees who came to the Alliance in 2019 were referred by members.

#### Advising Services

The Alliance's advising services grew to include the following:

- introduction to other funders
- partnerships with other funders
- identifying and managing science advisors
- identifying gaps in funding and research
- identifying funding opportunities
- advice on funding mechanisms
- helping with the recruitment of science program staff
- development of mission and vision
- strategy development
- workshops and other events to educate advisees about science philanthropy
- advice on creating requests for applicants
- advice on making grants and grant agreements

The most requested services in 2019 were support on potential partnerships, general advising, funding opportunities, advice and support in identifying science advisors, and funding mechanisms.

The Alliance's advisees continued to be interested in a variety of scientific fields. Ocean science, neuroscience (including neurodegeneration and mental health science), and artificial intelligence, in particular, stood out as areas of interest. Two emerging philanthropists showed particular interest in the physical sciences, an encouraging development given the predominant interest in life sciences in previous years.

# Eight of the Alliance's advisees were new in 2019.

## **Building a Community**

#### Learning Events

The Alliance is emerging as a resource for convening philanthropists and scientists to examine important topics in basic science and philanthropy. This is important, as often new philanthropists don't yet know what they want to support. Alliance meetings, workshops, and other events are stimulated by the interests and challenges of the advisees and members. The result is that these convenings propel Alliance advisees and members into funding new or underfunded areas of science.

Ocean science is of significant interest to Alliance members and advisees. To support philanthropists interested in this field, the Alliance convened two workshops, an ocean data science workshop (January) and an ocean genomics workshop (October). The January workshop invited ocean scientists to present to funders on a variety of topics related to ocean data science, addressing challenges and funding opportunities in the field. Over \$2.3 million was committed to ocean data science initiatives since the workshop. The October workshop was convened on behalf of an advisee that had recently completed a study of funding opportunities in ocean genomics and sought additional funders to support the relevant basic science opportunities.

In February, the Alliance co-hosted a science philanthropy learning session in San Francisco with the University of California, Berkeley (UCB) and the Heising-Simons Foundation. The event featured distinguished as well as up-and-coming UCB scientists, and philanthropists and foundations at different stages of their giving, including the Gordon and Betty Moore Foundation, the Heising-Simons Foundation, the Simons Foundation, The Shurl and Kay Curci Foundation, and the Sergey Brin Family Foundation. Immediately following the event, one attendee was inspired to provide \$2 million in funding to a UCB imaging instrumentation program.

#### Advising Team

The Alliance's advising work includes using our network of members and scientists to provide highly credible expertise while maintaining a high ROI due to our talented and lean team.

We have carefully selected individuals with exceptional expertise—scientists who are our senior



Panelists and audience at the Ocean Data Science Workshop at Schmidt Marine Technology Partners; left to right: Christian Müller, Flatiron Institute, Simons Foundation; Donglai Gong, Virginia Institute of Marine Science, College of William and Mary; Julia Stewart Lowndes, National Center for Ecological Analysis and Synthesis, University of Santa Barbara; and Chris Mentzel, Gordon and Betty Moore Foundation



Science Philanthropy Learning Session at UC, Berkeley. UC, Berkeley Presenters; left to right: Eliot Quataert, Professor of Astronomy & Physics, Bethanie Edwards, Assistant Professor, Department of Earth and Planetary Science, and Courtney Dressing, Assistant Professor of Astronomy

science advisors, advisors who are skilled relationship managers, and science philanthropy fellows who support the advising team as project managers and subject-matter experts.

As the Alliance's advising portfolio grew, staff resources were also expanded. In September 2019, the Alliance hired Bishakha Mona, who has a Ph.D. in Genetics, Development, and Disease, to support Alliance advisees interested in neuroscience.

In 2020, the Alliance will hire another advisor, a civic science fellow who will explore effective ways to communicate with funders (sponsored by the Rita Allen Foundation), and administrative staff to support the growing operations.

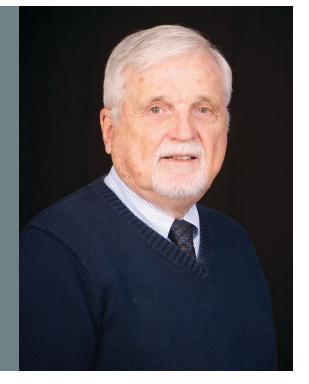
Nobel laureate and former Caltech president David Baltimore and former HHMI president and current UC Berkeley scientist Robert Tjian actively advise philanthropists, particularly those launching their science programs.



Science Philanthropy Alliance Senior Science Advisors, Robert Tjian, Ph.D., former President, HHMI; Biochemist, UC Berkeley, and David Baltimore, Ph.D., President Emeritus, Caltech.

One notable example of a science philanthropist advised by the Alliance is **Ross Brown**, an entrepreneur interested in supporting scientific research. The Alliance helped him create a roadmap for his philanthropy—first narrowing his focus to physics and chemistry and then on mid-career scientists. Ross wanted to get input on these ideas from foundations and universities, so the Alliance introduced him to several member foundations. After presenting different models for fellowship programs, the Alliance facilitated a partnership for Ross with the Packard Fellowships program, which resulted in his funding two Packard fellows in 2019. Following his funding the two fellows, which was a learning opportunity for Ross, the Alliance is now helping Ross identify advisors for a new mid-career investigator

Ross Brown, Cofounder and Trustee, Ross M. Brown Family Foundation



Since 2018, the Science Philanthropy Alliance has partnered with The Audacious Project, housed at TED, to review basic science projects that are "big, bold, and ambitious with the possibility to change systems and affect millions of lives." The Alliance has provided support to ensure the quality of basic science projects. In 2019, the Alliance co-hosted a luncheon for philanthropists to meet scientists during the TED conference to build excitement for basic science in the TED community. As a result of Alliance efforts, the 2019 Audacious projects included two basic science research projects, one at the Institute for Protein Design at the University of Washington and one at the Salk Institute for Biological Studies. These basic science projects attracted more than \$80 million in funding from the TED community.



Panelists at the TED Audacious Science Luncheon, UC Berkeley. From left to right: Thomas C. Skalak, Executive Director, Allen Institute, David Baker, Professor of Biochemistry and Director, Institute for Protein Design, University of Washington; Investigator, Howard Hughes Medical Institute and Joanne Chory, Investigator, Howard Hughes Medical Institute.

#### Membership

Five more organizations joined the Science Philanthropy Alliance as members in 2019: Ross M. Brown Family Foundation, The Brinson Foundation, John Templeton Foundation, Winn Family Foundation, and an anonymous benefactor.

The Alliance's membership grew from 25 to 30 members, half of whom are also advisees of the Alliance.

#### **Convening Members**

The Alliance hosted two videoconference members' meetings (February, September) and two in-person members' meetings (May, November) in 2019.

The February videoconference featured presentations recommended by members in exciting fields of science. The presentations included science leaders who shared their expertise in the growing trend towards convergence, the need for research instrumentation hubs, and opportunities in the use of data science for climate modeling.

The May members' meeting was hosted in New York City by the Rita Allen Foundation. Elizabeth Christopherson (CEO and president, Rita Allen Foundation) and Kathleen Foley (neurologist, Memorial Sloan-Kettering Cancer Center) shared the challenges and opportunities in the emerging area of chronic pain basic science research. Dan Linzer (president & CEO, Research Corporation for Science Advancement) shared how the Alliance has facilitated partnerships for his organization which have resulted in new funding for basic research. Ingrid Daubechies (James B. Duke Distinguished Professor of Mathematics and Electrical and Computer Engineering, Duke University) shared the proposal for New York City to host the International Conference of Mathematics in 2026. This resulted in a spontaneous grant from an Alliance member in attendance. Sue Merrilees shared a case study of the Alliance's advising services. Cyndi Atherton (director, science, Heising-Simons Foundation) and Joyce Yen (director, ADVANCE Center for Institutional Change, University of Washington) described how the Heising-Simons Foundation worked to better support diversity, equity, and inclusion in their programs. The subsequent interest in the diversity, equity, and inclusion presentation led to a full workshop for Alliance members on the topic, hosted by the Heising-Simons Foundation in November. The September video conference featured a presentation by Cheryl Moore, COO, about the New York Genome Center and a discussion about the inadequacies of the current system of scholarly publication, led by Michael Eisen, editor-in-chief at eLife.

The November members' meeting, hosted by the Gordon and Betty Moore Foundation, was focused on the leadership transitions at the Alliance, and the future of science research funding. The program included a discussion by Anne-Marie Coriat (head, UK and Europe Research Landscape, Wellcome Trust) and Malcolm Macleod (Professor of Neurology and Translational Neuroscience, University of Edinburgh) on research rigor and culture. Heather Youngs and Chris Somerville (program officers, scientific research, Open Philanthropy Project) presented on science giving at the Open Philanthropy Project. Marcia McNutt (geophysicist and president, National Academy of Sciences) provided an overview of the Academy's special role as advisors to the United States government. Robert Kirshner (chief program officer, science, Gordon and Betty Moore Foundation), Janet Coffey (program director, science, Gordon and Betty Moore Foundation), Dusan Pejakovic (program director, science, Gordon and Betty Moore Foundation), and Jon Kaye (program director, science, Gordon and Betty Moore Foundation), mad Betty Moore Foundation), presented on current science programs at the Gordon and Betty Moore Foundation. Mary Wooley (president, Research!America) made the case for the public priority of science.

In addition, the Alliance hosted the third annual communicators' meeting for Alliance member organizations in October, during the COMNET conference in Austin, Texas. This is a one-of-a-kind meeting that is organized by a rotating committee of members' communications staff. The meeting was attended by 21 communicators from 13 member organizations and is a focused opportunity to share experiences and learn best practices. The group discussed the findings of the report, "Identifying Best Practices for Communications Workforce at Science Philanthropies" by Anthony Dudo (associate professor, University of Texas at Austin) and John Besley (Ellis N. Brandt Professor of Public Relations, Michigan State University); the report was sponsored by the Albert and Mary Lasker Foundation, the John Templeton Foundation, and the Rita Allen Foundation. The group shared practices on positioning communications as a strategic function, measurement and evaluation of communications, supporting grantees, and communicating with the public.

#### Active Engagement

Members continue their active engagement with the Alliance. In addition to participating in member meetings, workshops, and learning sessions, members support the Alliance's advising work, including:

- providing advisee referrals to the Alliance team
- providing assistance with advising
- educating potential advisees and members about the value of the Alliance
- sharing partnership opportunities
- sourcing potential funding ideas
- sourcing potential science advisors

Members also contributed content to share with advisees and with the science philanthropy community, such as:

- a member practice document on requests for applications
- blog posts about science philanthropy practices
- content for the members-only website (including resources for ocean science funders and for communicators at science foundations)
- workshops and presentations, including the DEI workshop mentioned above and presentations at member meetings
- information about their organization's initiatives
- career opportunities at their organizations

New Member Logos







The Alliance is pleased to see the continued enthusiasm from research institutions to use the Alliance as the go-to resource on information about best practices in basic science fundraising, and for compelling ways to tell stories about the excitement and promise of basic science research. Via presentations and the Alliance website, Alliance staff and members provide knowledge and inspiration to research institutions.

## **Our Team**

2019 saw leadership transitions for the president and board chair roles. At the end of 2019, Marc Kastner stepped down from his role as Alliance president. The board selected Valerie Conn, the Alliance's executive director, to assume the role of president, effective January 1, 2020. Kastner will continue to support the Alliance's advising work as a senior science advisor.

In addition, Robert Conn, president and CEO of The Kavli Foundation, completed his term as Science Philanthropy Alliance board chair. The board selected Harvey Fineberg, president of the Gordon and Betty Moore Foundation, as board chair, effective January 1, 2020.

The leadership transitions were announced to members in October 2019. With new leadership in place, the Alliance is poised for continued success in its next chapter.

Other staffing changes in 2019 included the departure of Ruby Barcklay, director of communications and the hiring of Michael G. Bare, communications manager. The Alliance also hired a science fellow, Bishakha Mona, and recruited Karen Andrade, civic science fellow, to commence work in 2020. Jason Tung, director of partnerships, departed at the end of 2019.



Marc Kastner, Donner Professor of Physics Emeritus, MIT; Adjunct Professor of Physics, Stanford University, Valerie Conn, President, Science Philanthropy Alliance, Harvey Fineberg, President, Gordon and Betty Moore Foundation and Board Chair, Science Philanthropy Alliance, and Bob Conn, President & CEO, The Kavli Foundation

# **Planning for the Future**

In the spring of 2019, the Alliance completed the evaluation, initiated in fall 2018 at the board's request, of its first five years' operating with a staff. The evaluation partner, ORS Impact, shared its report with the board at the May board meeting. Overall, the ORS evaluation report was very positive, noting the Alliance has made noteworthy strides in its mission by creating a basic science funding field that is not only better connected but also more informed by best practices for this work. Specific findings included:

- 1. Member and advisee organizations mentioned how the Alliance has impacted their funding practices by shaping strategies to better understand the role of basic science funding and providing information to help philanthropists make more informed and intentional decisions.
- 2. Members, advisees, and stakeholders (research partners and collaborators) shared that the Alliance contributed to an increased sense of community or connectivity in the basic sciences, the number of collaborations or partnerships between funding organizations, and the number of new entrants who may have not funded basic science without guidance or support.
- **3**. Many organizations reported that the Alliance helped them gain a better understanding of basic science funding, broadened their funding networks, or deepened their awareness of the importance of the Alliance's mission.
- 4. When asked about their observations of the Alliance's impact as an organization, more than onethird of responding members spoke of a noticeable increase in the number of new and potential members.

The ORS Impact report and subsequent board discussions highlighted some potential questions related to the Alliance's strategy moving forward, namely:

- How can the Alliance broaden its mission to include increasing the effectiveness of basic science?
- How should the Alliance structure its business model to be sustainable over the next five to ten years? This includes looking at the membership growth.
- Revisit any decisions or other topics that are surfaced during planning conversations.

A retreat is scheduled for May 2020, at which time the board and Alliance leadership will engage in developing the Alliance's strategy for the next five to ten years. Alliance members will be involved in this process which will result in a strategic plan by the end of 2020.

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## **Board Members**

Robert W. Conn, Ph.D. (board chair) President and CEO, The Kavli Foundation

Adam F. Falk, Ph.D. President, Alfred P. Sloan Foundation

Harvey V. Fineberg, M.D., Ph.D. (incoming board chair, January 1, 2020) President, Gordon and Betty Moore Foundation

**Deanna Gomby, Ph.D.** *President and CEO, Heising-Simons Foundation* 

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

## **Members**

#### **Members**

Heising-Simons Foundation The Kavli Foundation Albert and Mary Lasker Foundation Gordon and Betty Moore Foundation Research Corporation for Science Advancement Rita Allen Foundation Simons Foundation Alfred P. Sloan Foundation

#### **Benefactors**

Howard Hughes Medical Institute David and Lucile Packard Foundation John Templeton Foundation Wellcome Anonymous

### Associate Members

**Sergey Brin Family Foundation The Brinson Foundation Ross M. Brown Family Foundation Chan Zuckerberg Initiative** The Shurl and Kay Curci Foundation **Dalio Philanthropies David and Claudia Harding Foundation** The Leona M. and Harry B. Helmsley **Charitable Trust** Lvda Hill Philanthropies The Klarman Family Foundation Leon Levy Foundation **Open Philanthropy Project** The Page Family The Rockefeller Foundation Schmidt Futures Winn Family Foundation Anonymous

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

Claire Pomeroy, MD, MBA President, Albert and Mary Lasker Foundation

James Simons, Ph.D. Chairman, Simons Foundation

## **Staff and Consultants**

Marc Kastner, Ph.D. President

Valerie Conn Executive Director

Ruby Barcklay Communications Director

Michael G. Bare, M.P.H Communications Manager

**Elenoa Fuka** Operations Manager

Lana Ha Executive Assistant

Julie Kohrt Director of Events

Kate Lowry, Ph.D. Fellow

Sue Merrilees Senior Advisor

Bishakha Mona, Ph.D. Fellow

Jason Tung, Ph.D. Director of Partnerships

#### Senior Science Advisors

David Baltimore, Ph.D. California Institute of Technology

Robert Tjian, Ph.D. University of California, Berkeley



#### 480 California Avenue #304 Palo Alto, CA 94306

info@sciphil.org

sciphil.org



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