

Non-profit Funding

Non-profit organizations make many enduring contributions to the University of California, providing funding to promote specific causes, humanitarian efforts and areas of research that might otherwise receive little governmental or corporate support. In addition to sponsoring diverse research projects in sciences, arts and humanities, non-profit organizations have provided funding for many innovative programs, research centers and project initiatives that support the University's instructional, research and public service missions. Institutional development efforts that non-profit organizations have created and supported at UC over the last five years, involving awards of at least \$5 million include:

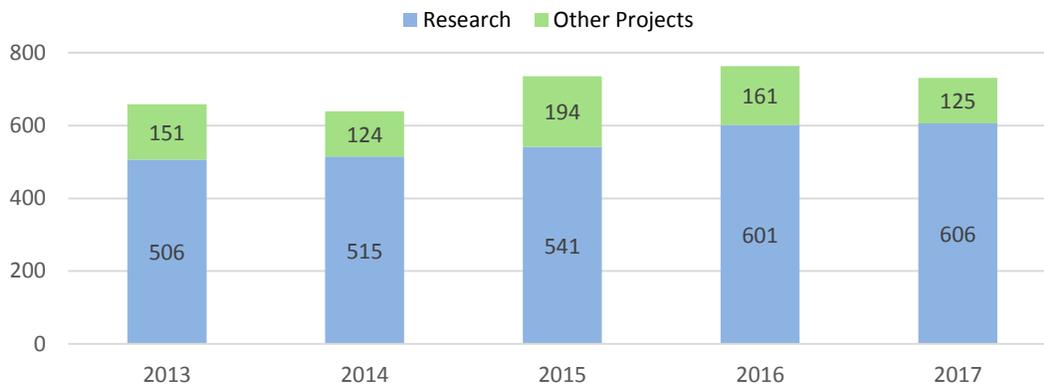
- a program to help relieve the shortage of nurses in the state of California;
- a research institute to study cancer immunotherapy;
- a construction grant to build a 30-meter telescope;
- a research institute for theoretical computer science;
- a research center studying the potential and risks of smart, networked sensors and actuators;
- a global project to reduce the number and improve the health of pre-term infants;
- an international project to reduce the incidence of malaria, region by region;
- a network of health centers specializing in treatment of wounded veterans;
- a residency training program for OB-GYN and family planning specialists in the US and Canada;
- a consortium to observe and study oceanic changes;
- a center for digital media and learning;
- a program to develop improved solid state lighting technology; and
- a center for the study of the theology of immortality.

These examples are just a few of the nearly 14,000 projects sponsored at UC over the last five years by 2,700 non-profit organizations. While most of these projects are for targeted research efforts, and average about \$250,000, many of the largest awards are intended to promote institution-building within UC, with the goal of creating programs and centers that will advance specific humanitarian causes and research agendas.

Growth in non-profit funding

UC's funding from non-profit organizations has increased steadily over the last five years, keeping pace with UC's growing support from governmental and corporate sources. In FY 2016-17, nearly 1,300 non-profit organizations provided over \$730 million in awards to UC, representing about 12% of UC's total project sponsorship of just over \$6 billion. This amount compares to about \$750 million in corporate funding, and \$3.3 billion from federal agencies.

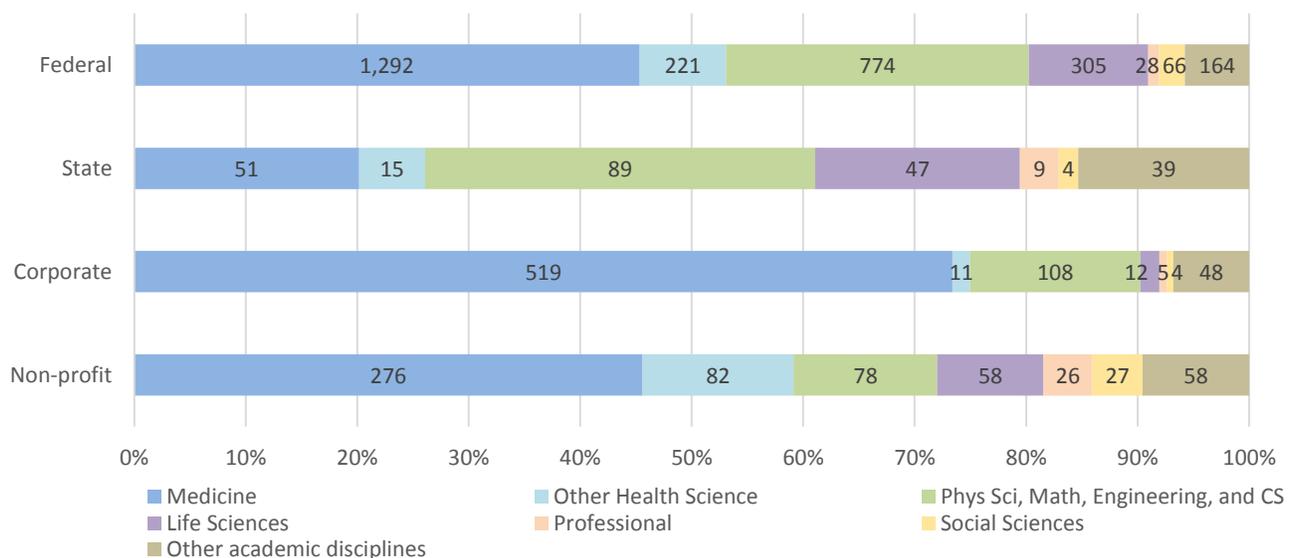
Non-profit project sponsorship, \$ millions



Non-profit support is strongly mission-driven

The kinds of projects and programs that foundations, charities and interest groups support at UC differ from those funded by government and corporate sponsors because non-profit organizations are strongly issue-driven in their partnerships with UC. Broadly speaking, federal agencies primarily support basic, fundamental research through both individual project awards and long-term program grants and are mostly focused on medical research. Private corporations focus on product-driven research and development, and again, the majority of the funding is for work in medicine. By contrast, non-profit organizations focus on mission-driven projects, funding basic research, product development, instructional programs and institution-building at UC; many non-profits concentrate their support on a single issue or research area, such as maternal health or a geographic region.

Research funding by discipline, 2016-17, \$ millions



Of the 3.5 billion that UC has received from non-profit organizations over the last five years, nearly one-quarter is designated to support social service and training programs, and to create new academic programs and research centers. By contrast, only about 15% of federal funding and 5% of corporate funding was for projects other than research. The disciplinary breakdown of project funding by non-profit organizations also illustrates the difference between their relationship to UC and that of federal and corporate project sponsors.

Compared to corporations, non-profit organizations show less emphasis on medical research in their funding preferences. Non-profits support relatively few clinical trials, whereas nearly half of all corporate funding to UC is for clinical trial research of near-market therapies and medical. Non-profit organizations also provide proportionately less for science and engineering than either the federal government or corporations. And non-profits focus considerably more on the social sciences and professional disciplines than UC's other sources of project sponsorship.

Non-profit project portfolios

Over the last five years, 24 non-profit organizations have provided over \$25 million in project funding to UC:

Major non-profit project sponsors, FY 2013 to 2017, \$ millions

Bill & Melinda Gates Foundation	200	Gordon and Betty Moore Foundation	189
Simons Foundation	122	Patient-Centered Outcomes Research Inst.	100
Susan Thompson Buffet Foundation	78	Northern CA Inst. for Research & Education	77
Microelectronics Advanced Research Corp	64	Parker Inst. for Cancer Immunotherapy	51
Robert Wood Johnson Foundation	50	Howard Hughes Medical Institute	42
Andres W. Mellon Foundation	42	Alfred P. Sloan Foundation	37
William & Flora Hewlett Foundation	31	JDRF	29
Adelson Medical Research Foundation	29	David and Lucile Packard Foundation	29
American Cancer Society	28	Veterans Medical Research Fdtn, San Diego	28
American Heart Association	28	FHI 360	27
Benaroya Research Inst., Virginia Mason	26	W. M. Keck Foundation	26
Scripps Research Institute	26	Henry M. Jackson Foundation for the Advancement of Military Medicine	25

The project portfolios of the seven non-profit sponsors that have provided the largest award totals to UC over the past five years demonstrate both the extraordinary impact and the great diversity of issue-driven projects.

Bill & Melinda Gates Foundation

UC's largest non-profit sponsor over the last five years has been the Bill & Melinda Gates Foundation, with over \$200 million in awards. The Foundation focuses its project sponsorship on issues of global health and nutrition, with special emphasis on malaria eradication and child and maternal health.

- combatting malaria worldwide - \$68 million
- child and maternal health - \$47 million
- global health projects - \$42 million
- social and educational projects - \$23 million
- global food and nutrition - \$11 million
- HIV/AIDS projects - \$9 million

Gordon and Betty Moore Foundation

UC's second largest non-profit sponsor provided \$189 million over the last five years, mostly aimed at creating new programs and facilities promoting healthcare and advancing knowledge in physical and environmental sciences. The largest single effort involves \$50 million to create and sustain a new nursing program at the UC Davis School of Medicine (and an additional \$28 million in prior years). Nearly \$36 million was provided for construction of the thirty-meter telescope on Mauna Kea, Hawaii, and other major research instrumentation grants throughout UC amounted to nearly \$13 million. Other funding areas for the Foundation include:

- physical sciences - \$24 million
- ecological and environmental projects - \$18 million
- medical and healthcare delivery projects - \$18 million
- life sciences - \$12 million
- data science institute at UC Berkeley - \$13 million
- science education, principally in the SF Bay Area - \$9 million

Simons Foundation

Of the \$122 million that the Simons Foundation has provided to UC over the last five years, more than half of the total supported just two large projects. UC Berkeley received \$31.1 million to establish the Simons Institute for the Theory of Computing at UC Berkeley. And UC San Diego received \$32.6 million to fund the Simons Observatory, based in Chile's Atacama Desert. This project builds upon the Simons Telescope Array, which was previously funded for \$6 million. Other major areas of support include \$40 million for medicine and life sciences, \$8 million for physical sciences and \$5 million for mathematics.

Patient-Centered Outcomes Research Institute (PCORI)

UC's fourth-largest non-profit funder, with over \$100 million in awards over the past five years, was established in 2010 by the Affordable Care Act as a non-governmental, private, non-profit organization. Its mission is to support research, disseminate findings and build national capacity for patient-centered health care that compares the effectiveness of health-care options and how that varies with different

patient populations. The Institute is funded not by the federal government, but through special fees paid by health insurers and health plans to the Internal Revenue Service, which are earmarked for the Institute's trust fund. The Institute is authorized to operate in this manner through 2019.

The Institute has funded more than \$1.6 billion in projects since its inception, nearly all of this within the last five years, and UC has received more than 6% of its total funding. Major UC projects funded by the Institute include: \$16 million to support the Patient-oriented scalable National Network for Effectiveness Research (pSCANNER) at UC San Diego; \$14 million to UC San Francisco for assessing the effectiveness of personalized versus annual screening for breast cancer; and \$7.6 million to UC Davis to assess screening and diagnosis of breast cancer by breast density.

Susan Thompson Buffett Foundation

The single issue that motivates the Susan Thompson Buffett Foundation's \$78 million in funding to UC over the last six years is family planning. Of this amount, \$52 million was provided to support the Kenneth J. Ryan Residency Training Program, a program based at the department of Obstetrics, Gynecology and Reproductive Sciences at UCSF that provides family planning training for Ob-Gyn residents at medical centers and hospitals throughout the United States and Canada. About \$5.3 million of this amount was directed to residents at UC's other medical schools at Davis, UCLA, San Diego and Irvine so that they could participate in this residency program. In addition, the Foundation sponsored the \$8.6 million Turnaway Study at UCSF's Advancing New Standards in Reproductive Health Center, examining the health and socioeconomic outcomes for women with unintended pregnancies.

Northern California Institute for Research and Education (NCIRE)

NCIRE, also known as the Veterans Health Research Institute, is the nation's largest non-profit research organization focused on advancing research on veterans' health concerns. The Institute's connection with UC is mainly focused on a single issue — research on diagnosis and treatments of Alzheimer's disease. A particular focus is the connection of traumatic brain injury and post-traumatic stress disorder on Alzheimer's onset. Of the \$77 million provided to UC over the last six years, about \$33 million directly supported the Alzheimer's Disease Neuroimaging Initiative (ADNI), a project conducted largely at UCSF but with some components performed at the other UC medical centers as well. NCIRE also provided \$42 million for Joint Personnel Agreements, which are used to support the research and clinical work of UCSF personnel at, and on behalf of, the San Francisco VA Medical Center.

Microelectronics Advanced Research Corporation (MARCO)

MARCO is an industry-funded, not-for-profit organization that is connected to the Semiconductor Industry Association, and that supports university research focused on microelectronic technology. While semiconductor companies directly sponsor many product-oriented research projects at UC, MARCO's recent funding, totalling about \$64 million over the past five years, has been designated to create and support two large centers conducting basic, fundamental research on semiconductor materials and computing technologies. UC Berkeley has received \$29 million for the TerraSwarm Research Center, dedicated to assessing the potential and risks of smart, networked sensors and actuators (in common parlance, the "Internet of Things"). Some of this funding was provided to MARCO by the Federal Defense Advanced Research Projects Agency (DARPA). UCLA also received about \$35 million for the Function Accelerated Nanomaterials Engineering center (FAME), which conducts basic research on atomic-scale materials and structures to promote innovation in logic and memory semiconductors.

Non-profits and project diversity

Support from these seven major non-profit organizations has made a major impact in shaping UC's projects and programs. The funding they collectively provide, however, represents less than one-quarter of the funding UC has received from the 2,650 non-profit organizations that have sponsored projects at UC over the past five years. Each of these organizations has a specific and often unique charter to advance a social issue or an area of research that might otherwise receive little or no attention from governments or corporations. Their concerns range from research into the causes and cures for medical conditions to purely theoretical research in the physical and social sciences, to support for graduate and undergraduate training in the humanities.

This collection of several thousand distinct interests and priorities has produced an extraordinarily diverse portfolio of sponsored projects at UC, and contributes to the unparalleled breadth and depth of the research that UC conducts, the instructional programs it offers, and the services it performs worldwide.

Data source: UC Information Center Data Warehouse Contracts & Grants system. Aggregate award amounts are adjusted for inflation. Amounts noted in the project portfolios are not inflation-adjusted.

For more information about sponsored projects and UC's research activities, see Chapter 9 of the 2017 Accountability Report (<http://accountability.universityofcalifornia.edu/2017/chapters/chapter-9.html>) and the UC Information Center visualizations on Research Sponsorship at UC.