

Fact Sheet: The Importance of the National Institutes of Health Research Partnership with the University of California

The University of California (UC) receives more than half of the National Institutes of Health (NIH) funding distributed to California by the federal government. In fiscal year (FY) 2018, UC received \$1.86 billion in total NIH funding, making the NIH the university's largest research sponsor. A significant portion of NIH funding to UC comes from the National Institute of General Medicine Science, the National Institute of Allergy and Infectious Diseases and the National Cancer Institute. While overall funding for the NIH has increased in recent years, support for medical research has nevertheless lagged behind the rate of medical inflation.

Federal support for medical research is critical for UC to continue to conduct world-class research, address emerging diseases, advance science and save lives.

UC supports a \$2 billion increase for NIH in FY 2020.

UC, with more than 800 research centers, institutes, laboratories and programs spanning ten campuses, five medical centers, three national laboratories and numerous specialized research facilities, performs nearly one-tenth of all academic research and development conducted in the U.S.

- All UC campuses and medical centers receive funding from the NIH. UC Berkeley, UC Davis, UC Irvine, UC Los Angeles (UCLA), UC San Diego and UC San Francisco (UCSF) are six of the top 10 institutions receiving the most NIH funding in California.
- UCSF received more NIH funding in FY 2018 than any other public university in the country – the eighth consecutive year UCSF earned this distinction.
- Investment in medical research has increased by 92 percent since 1997-98, compared to 44 percent for all other disciplines, and accounts for more than 47 percent of UC's total research expenditures.

UC COLLABORATION AND ADVANCEMENTS IN MEDICAL RESEARCH

- UC is leading the way in medical innovation with groundbreaking studies throughout the system:
 - \$9 million grant to help UC San Diego fund two multi-institutional research projects to pinpoint the cause of Type 1 Diabetes, from the National Institute of Diabetes and Digestive and Kidney Disease.
 - \$9.1 million grant to UCSF School of Nursing from the NIH to fund research in diverse areas, such as cancer symptomology and substance abuse disorders.
 - \$12 million grant to UC San Diego for the Metabolics Workbench to further research on the building blocks of human metabolism.
 - \$2 million grant to UC Santa Cruz by the National Human Genome Research Institute for its DNA sequencing research.
 - \$2.5 million grant to UC Merced to help develop an X-ray scanner that could accelerate cancer research.

- \$6.2 million grant to UCSF to translate two widely used in-clinic tests for cognitive decline to electronic versions that can be taken at home, so that cognitive decline is easier to identify in its early stages.
- *UC Biomedical Research Acceleration, Integration and Development (UC BRAID) Consortium*: UC BRAID is a collaboration between UC's five medical center campuses and Office of the President (UCOP) aimed at accelerating biomedical research across UC and streamlining research in California. UC BRAID receives federal funding from NIH and the National Center for Advancing Translational Sciences, and has leveraged the strengths of individual UC campuses to quickly become recognized as a leader in accelerating clinical and translational research.
- *UC Center for Accelerated Innovation (UC CAI)*: A unique component of UC BRAID and supported by funding from the National Heart, Lung and Blood Institute, UC CAI is one of three Centers for Accelerated Innovations in the country. UC CAI aims to accelerate the translation of scientific discovery into commercial products that improve health, particularly for patients with heart, lung and blood diseases, and has contributed funding to develop 24 technologies, garnering a return of \$19.8 million in follow-on funding and external investment.
- UC produces, on average, five new discoveries a day. UC discoveries that have changed millions of lives include:
 - The development of the world's first embryonic stem cell treatment tested in humans;
 - Invention of the cochlear implant;
 - Co-discovery of HIV;
 - World's first domino liver transplant surgery; and
 - World's second documented larynx transplant.

UC CONTRIBUTION TO RESEARCH & DEVELOPMENT WORKFORCE AND ECONOMY

UC's world-class faculty, graduate academic and postdoctoral students are vital to the mission of conducting renowned research. It is crucial to UC's mission to employ a diverse community of faculty, academics, researchers and students to contribute research to all disciplines. Without a richly diverse workforce, the quality of UC's research could be diminished for many years to come.

- In the medical and health science research workforce, UC employs approximately 12,900 full-time-equivalent (FTE) personnel, comprising 47 percent of UC's total FTE research personnel.
- UC's 2015-16 research workforce was about 2 percent larger than it was the year before, due principally to an increase in the numbers of medical researchers.
- The success rate for federal grant proposals for all research universities has declined over the last decade to about one proposal funded for every five received at NIH, yet UC conducts an average of \$516,000 in research per tenured and tenure-track faculty, significantly more than comparable public (\$283,000) and private (\$413,000) institutions.
- NIH research funding enables California's biomedical research industry to remain a global innovation leader, and supports hundreds of thousands of jobs and economic growth in California and across the nation.