

BIOMEDICAL RESEARCH IN THE U.S. AND CALIFORNIA



The National Institutes of Health (NIH) is the world's leading health research agency and an engine for both medical innovation and economic growth. Flat funding or worse, budget cuts, will undermine biomedical progress and hope for millions of patients at a time when we are on the cusp of exciting new advances in cancer, infectious diseases, heart disease, diabetes, Alzheimer's and many other diseases.

THE VALUE OF NIH FUNDING

NIH Saves Lives

- The NIH provides critical funding for basic research, which is the foundation for innovation and is crucial to the development of breakthrough therapies and technologies.
- Over the past 40 years, NIH-funded research has contributed to the discovery of over 150 new FDA-approved drugs, vaccines or new indications for current drugs, and has been the driving force behind advances that were once unimaginable, such as sequencing the human genome.

NIH Funds Scientists' Research

- NIH supports the work of research institutions and small companies across the country, providing \$24.6 billion in extramural research.
- In FY 2016, California received nearly \$3.7 billion in NIH funding, which has funded 7,700 grants.
- Among those, Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) grants have allowed small businesses and start-up companies to bring innovative ideas to commercialization.

NIH Fuels the Economy

- NIH generates almost \$65 billion in economic activity, including over \$10 billion in California.
- Every \$1 in NIH funding generates over \$2 in local economic growth.
- The federal investment of \$3.8 billion in the Human Genome Project from 1988 to 2003 helped drive \$796 billion in economic output.

NIH Supports jobs

- Research funded by the NIH supports almost 380,000 jobs across the U.S, including 57,600 in California.
- In California, the average wage for life science scientists was \$108,752, well above the average annual wage for all industries of \$61,798.

THE IMPACT OF DEFUNDING THE NIH

Impact on the Economy

- NIH funding has not kept pace with inflation over the past decade, which has resulted in NIH losing nearly 25 percent of its purchasing power and researchers having more difficulty securing grant funding, especially young, first-time applicants.
- In FY2016, Congress approved a \$2 billion increase to the NIH budget, the first substantial increase in a decade, which resulted in a gain of \$1.8 billion in research grants, \$4 billion in economic activity, and over 27,000 jobs compared to FY 2015.
- The Trump Administration's proposed 20 percent cut to the NIH for FY 2018 would result in a loss of \$5.8 billion in research grants, \$15.3 billion in economic activity, and almost 90,000 jobs compared to FY 2016.
- California would lose \$870 million in research grants, \$2.4 billion in economic activity, and over 13,500 jobs.

Impact on the U.S. Innovation Ecosystem

- Decreased investments in innovation would be disastrous to the ability of research institutions, academic campuses, and small companies to secure grant funding and could drive away early-stage investors, lead some scientists to other countries to pursue research interests, and discourage talented individuals from pursuing careers in science.
- As a result, research ideas and projects that could lead to life-changing discoveries and potential cures will be delayed or never be developed.
- The U.S. also risks losing global leadership in science and medical innovation. Countries such as China, India, and Russia are all increasing their R&D investments by double digits.

Biocom is California's largest and most experienced life science organization. We work on behalf of more than 900 members, including biotechnology, pharmaceutical, medical device, genomics and diagnostics companies of all sizes, as well as research universities and institutes, clinical research organizations, and investors and service providers, to be a leading voice in the advocacy efforts of the California life science community.

Sources: National Institutes of Health, United for Medical Research, Research America!, Biocom 2017 Economic Impact Report