

Global Health R&D

→ A smart investment for **CALIFORNIA**



Global Health Research and Development:

working to improve lives at home and abroad.

Job Creation

- ∴ In 2010, California received \$3.3 billion in National Institutes of Health (NIH) grants and contracts supporting more than 62,000 jobs in the state.*
- ∴ Approximately 600 private, for-profit companies are engaged in global health activities in California, and their employees earn an average salary of \$71,500.**
- ∴ The global health sector supports 350,000 high-quality jobs in California and generated \$19.7 billion in wages in 2007.**
- ∴ California's academic community plays a significant role in global health, generating at least \$4 billion in business activity in 2007 and employing more than 12,000 people.**

Sources: *United for Medical Research, 2011

**UC Global Health Institute, The Importance of the Global Health Sector in California: An Evaluation of the Economic Impact

***National Science Foundation, Science and Engineering Indicators, 2010

****The Alliance for Science & Technology Research in America, California R&D 2011

California by the Numbers

- ∴ In 2007, an estimated \$49.8 billion of business activity (revenue or income) was generated through global health activities.**
- ∴ Global health-related business is a significant contributor to California's bottom line, accounting for an estimated \$8 billion, or 7%, of the \$114.7 billion in total taxes collected by the state in 2007.**
- ∴ California represents 22% of U.S. R&D expenditures, the top performing state in R&D in the U.S.***
- ∴ California's colleges and universities received more than \$7 billion in federal R&D spending in FY08, ranking it first in the nation.****
- ∴ The state's outstanding universities, businesses, nonprofits, and government create a robust and dynamic global health sector that has significant impacts on job creation, tax revenue and other areas affecting California and its population.**

HEALTH IMPACT

- ▶ **While the threat of TB is greatest in developing countries, in the U.S. tuberculosis continues to cause serious health problems and death. The number of TB cases is declining, but the speed of decline has slowed since 2003.**
- ▶ **A new diagnostic test has recently been developed as the result of a unique partnership between Sunnyvale-based diagnostics company Cepheid and the Foundation for Innovative New Diagnostics. Endorsed by the World Health Organization in late 2010, over 30 countries have already adopted the test.**
- ▶ **This new, easy-to-use TB test now gives results in minutes instead of months at a dramatically reduced cost. The test has the potential to revolutionize the diagnosis of TB, particularly multi-drug resistant strains.**

Sources: CDC; Foundation for Innovative New Diagnostics



CALIFORNIA: PROFILES AND PARTNERSHIPS

Product development partnerships (PDPs) are designed to efficiently develop and manufacture new health technologies for neglected diseases. PDPs with a presence in California include:

OneWorld Health San Francisco ∴ OneWorld Health takes aim at neglected diseases that devastate impoverished populations, especially children, in the developing world. It works with the pharmaceutical industry, successful start-ups, university-based research labs, nonprofit hospitals and others in the U.S. and developing countries to discover, develop and produce treatments and interventions for debilitating diseases around the world.

International AIDS Vaccine Initiative La Jolla ∴ The IAVI Neutralizing Antibody Center at The Scripps Research Institute is on the cutting edge of research into the design of effective AIDS vaccines. IAVI emphasizes the development of vaccines against subtypes of HIV that circulate primarily in the developing world, where approximately 95% of new infections occur. It also seeks to ensure that vaccines developed with its support will be made accessible to developing countries as swiftly as possible.

ECONOMIC IMPACT

Where Does California Rank?

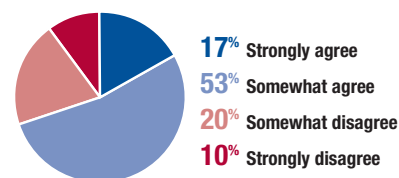
SOURCE OF R&D FUNDING	INVESTMENT	STATE RANK
Federal Government	\$15,398,000,000	1
Industry	\$59,727,000,000	1
University	\$1,293,000,000	1
Nonprofit	\$759,000,000	1
Other	\$431,000,000	2*
Total	\$77,608,000,000	1

Source: National patterns of R&D Resources, National Science Foundation, 2008.
*Other represents funding from state and local governments and funding for Federally Funded Research and Development Centers from non-federal sources. Texas is ranked number one in this category.

What Californians are saying

Californians Think Americans Would Be Better Off If U.S. Invests in Global Health Research

Do you agree or disagree that Americans will be better off if the U.S. government invests in global health research?



Source: California Global Health Survey, July 2011. Charlton Research Company for Research!America



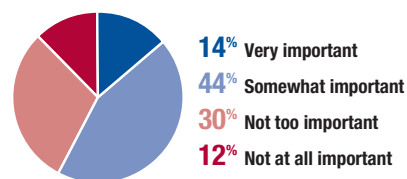
Global Health is America's Health

Public-private partnerships are paving the way for breaking typical R&D bottlenecks, creating competitive gains for the U.S. in science and improving health around the world.

- ▶ **Anacor Pharmaceuticals** in Palo Alto understands that global health is good business. In 2010, they began work with **Medicines for Malaria Ventures** for the treatment of malaria and began collaboration with UCSF's **Sandler Center for Drug Discovery** to tackle river blindness. The same year, Anacor completed their initial public offering. In 2011, they partnered with **OneWorld Health** and the **Drugs for Neglected Diseases Initiative** for work on neglected diseases. Source: Anacor Pharmaceuticals
- ▶ The **IAVI Neutralizing Antibody Center** at **The Scripps Research Institute's** recent breakthroughs could play a major role in ending the HIV pandemic. Its contributions to the discovery and characterization of several powerful broadly neutralizing antibodies have significant implications for AIDS vaccine design. Its strategies may be applied to develop potentially revolutionary vaccines against other infectious diseases, such as influenza. Source: International AIDS Vaccine Initiative

Californians Think Global Health Research is Important to California's Economy

How important do you think spending money on global health research is to the economy of California? Would you say it is...



Source: California Global Health Survey, July 2011. Charlton Research Company for Research!America

California Global Ties

- ▶ California has the largest economy of any U.S. state and is the 10th largest economy in the world. California's global economic position, the depth of its intellectual and creative resources, as well as its geographic position on the Pacific Rim and proximity to Latin America, make it a magnet for international activity and global health efforts. Source: UC Global Health Institute, The Importance of the Global Health Sector in California: An Evaluation of the Economic Impact
- ▶ Every day approximately 33,000 passengers depart from cities all over the world destined for California's San Francisco International and Los Angeles International airports. Among the arrivals are international tourists and business people who spend billions of dollars per year in California. Addressing infectious diseases that may enter the U.S. through California's gateways is critical. Source: Why Does Global Health Matter to California? Families USA's Global Health Initiative, 2008



1101 King Street, Suite 520
Alexandria, Virginia 22314
703.739.2577
Fax 703.739.2372
www.researchamerica.org
info@researchamerica.org