

THE IMPACT OF LIFE SCIENCE IN THE CITY OF SAN DIEGO

The life science industry in the City of San Diego continues to be a leader among other clusters around the world. Employment in the region has increased at a much faster pace than the nation, with direct employment increasing 22% in the past five years. The 2016 average wage of \$113,128 in the life science sector in San Diego City is greater than that of California. The city's life science sector provides 32,000 jobs and supports an additional 73,000 jobs, for a total countywide impact of over 105,000 jobs. There was significant job growth in the Research and Laboratory subsector, with 5,000 jobs added over the past five years.

ANNUAL ECONOMIC IMPACT

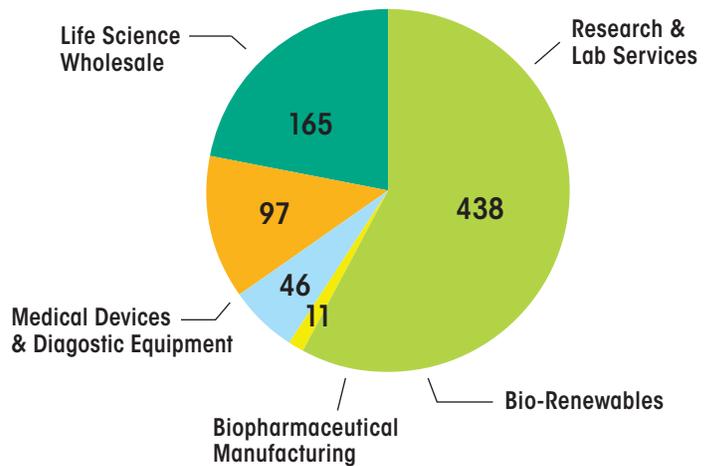
DESCRIPTION	IMPACT
Economic Activity	\$17.5 billion
Gross Area Product	\$10.3 billion
Attributable Jobs	73,000
Labor Income	\$6.7 billion

The industry generates **\$17.5 billion** in annual economic activity.

SUBSECTOR	EMPLOYMENT IN 2016
 Bio-Renewables	283
Includes biofuels, specialty enzymes and chemicals, algae research, and key elements of agriculture.	
 Biopharmaceutical Manufacturing	3,212
The production of medicines, botanicals, pharmaceuticals, in-vitro diagnostic substances, and biological products.	
 Medical Devices & Diagnostic Equipment	4,474
Laboratory equipment and supplies, optical instruments, electromedical apparatus, surgical and medical instruments, and dental equipment.	
 Life Science Wholesale	2,224
Wholesaling and distributing medical equipment and supplies and the wholesaling of drugs and related products.	
 Research & Lab Services	21,979
Research and development in biotech, medical laboratories, and industries representing testing laboratories, as well as higher education.	

Employment in the city's life science industry has increased by **22%** over the past five years.

BREAKDOWN OF LIFE SCIENCE COMPANY SECTORS



There are **757** life science establishments in the City of San Diego.

NIH Funding

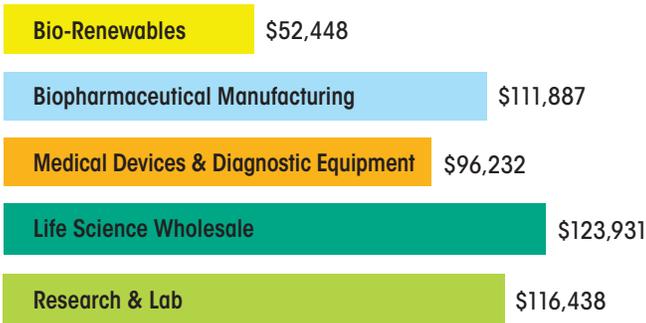
Of California's total \$3.6B of NIH funding in fiscal year 2016, the City of San Diego received \$822 million, which goes towards private and public institutions, including universities, labs, and companies. This funding provides key seed money that boosts local research and encourages innovation for the industry.

The City of San Diego received **\$822 Million** in Research Funding from the National Institutes of Health (NIH) for FY2016.

Economic Impact data prepared by TClower & Associates

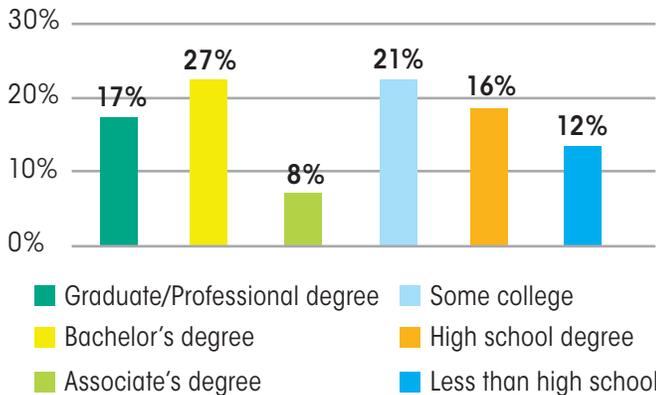


AVERAGE WAGES ACROSS SUBSECTORS



The annual average industry wage was \$113,128 with Life Science Wholesale topping the industry at \$123,931.

EDUCATIONAL ATTAINMENT



The City of San Diego has a highly educated workforce. The share of the population with a bachelor's degree is 27%, 8 percentage points greater than the nation. 17% of the city's workforce has a graduate level degree, well above the national average of 12%. Such above-average statistics reveal that the city's highly educated workforce fuels San Diego's stature as a leading cluster.

Biocom Member Spotlight: Althea



Althea, one of Biocom's members in the pharmaceutical manufacturing subsector, is a fully integrated contract development and manufacturing organization (CDMO) with customers that range from large pharma to early stage biotech companies. Althea has seen tremendous growth in the last five years and has since doubled its workforce. Althea has a 25% sales growth year over year, which is projected to continue into the next three years.

- Products manufactured: all clinical phases through commercial
- Global reach: regulatory approvals in 8 countries and growing
- Aseptic filling of Drug Product in vials and syringes
- cGMP Drug Substance manufacturing
- Broad range of analytical development and testing
- Acquired by Japanese company Ajinomoto Inc. in 2013



Expanding into Antibody Drug Conjugate and High Potency Manufacturing



25%
year over year sales growth between 2013-2020



~500 employees (doubled since 2013)

About Biocom

Biocom is the largest, most experienced leader and advocate for California's life science sector. We work on behalf of more than 900 members to drive public policy, build an enviable network of industry leaders, create access to capital, introduce cutting-edge STEM education programs, and create robust value-driven purchasing programs.

Founded in 1995 in San Diego, Biocom provides the strongest public voice to research institutions and companies that fuel the local and state-wide economy. Our goal is simple: to help our members produce novel solutions that improve the human condition. In addition to its San Diego headquarters, Biocom has continuous staff presence in Los Angeles, San Francisco, Sacramento, Washington, D.C. and Tokyo. Our broad membership benefits apply to biotechnology, pharmaceutical, medical device, genomics and diagnostics companies of all sizes, as well as to research universities and institutes, clinical research organizations, investors and service providers.

This is a condensed summary of the Economic Impact Report produced by Biocom and TClower & Associates. For the full report, please visit our website: www.biocom.org