

LIFE SCIENCES & HEALTHCARE

Greater Seattle

A GLOBAL HUB OF INNOVATION

The Greater Seattle region is among the top ten largest life science clusters in the country, with an abundance of talent and world-renowned institutions collaborating to create a unique and cutting-edge industry. The sector has a strong presence in Washington State as well, with 888 life science companies, institutes and organizations located in 92 cities across the state.

HOME TO THE LARGEST PRIVATE
PHILANTHROPIC FOUNDATION
IN THE WORLD

Bill & Melinda Gates
Foundation

EXCELLENCE THROUGH COLLABORATION

A defining characteristic of Washington state's life science cluster is its diversity and cross-sector collaboration. From universities and incubators to venture capital and industry-leading companies, these various players collaborate to develop groundbreaking treatments for cancer; infectious disease research; medical devices, even life support systems for astronauts.

Attracting international investment

This activity has attracted international notice. Major foreign companies with a presence here include Germany-based **Philips Healthcare** and Denmark's **NovoNordisk**; Switzerland's **Roche** announced investment in Seattle's Stratos Genomics in 2018 and Singapore's **Temasek** recently invested in Seattle-based Columbia Pacific Management to develop medical care facilities in China.

Top life science clusters in the US

Cluster	Ranking
Greater Boston	1
San Francisco Bay Area	2
San Diego	3
Raleigh-Durham	4
Philadelphia	5
Maryland Suburbs/DC Metro	6
Seattle-Bellevue	7
New Jersey	8
Los Angeles/Orange Country	9
Chicago Metro	10

Source: JLL's 2017 Life Sciences Outlook Report

WASHINGTON STATE LIFE SCIENCES SNAPSHOT (2017)

- 888 biotech, med tech, life sciences and digital health companies
- 36,300 life sciences jobs
- \$982 million in NIH funding
- > \$3.2 billion in transactions (IPOs M&As, Venture Equity) in 2015



A DIVERSE INDUSTRY

Washington State's life sciences industry is multifaceted, and companies range from R&D to production and implementation.

NanoString Technologies: A publicly held provider of life science tools that develops products that unlock valuable and clinically actionable genomic information from small amounts of tissue.

Physio Control: This Redmond based maker of heart defibrillators bought out its parent company through a \$487 million deal. Throughout their 55 years of business, Physio Control has continued to set new standards for the design and manufacturing excellence of medical tools used in and out of hospital settings.

Adaptive Biotechnologies: Seattle-based Adaptive received Microsoft financing in 2018 to partner on leveraging AI and machine learning to decode the human immune system and better diagnose and treat disease.

WORLD-CLASS RESEARCH

- **University of Washington (UW)**

One of the top research universities in the world, the UW is the fourth largest public university recipient of federal research funding from the National Science Foundation in the U.S. Since 1990, five UW faculty have won Nobel Prizes in medicine, more than any other institution during that time.

- **Washington State University (WSU)**

In cooperation with UW, WSU has created WWAMI, a partnership that educates new physicians and offers programs targeted toward those interested in working in underserved and rural areas. WSU is among the nation's top land-grant research universities.

- **Fred Hutchinson Cancer Research Center (Fred Hutch)**

One of the world's leading cancer research institutes, Fred Hutch employs over 300 individuals that translate knowledge into treatments. Scientists at Fred Hutch are currently developing the next generation of treatments for HIV, cancer and many other diseases.

- **Institute for Systems Biology (ISB)**

Committed to inventing the 'future of human health', ISB has grown to about 200 staffers and has become one of the top institutions in the life sciences sector.

- **Allen Institute**

The mission of the Allen Institute is to produce free publicly available resources that will contribute to worldwide research in the life sciences sector. It was recently awarded ~\$100 million to lead global collaborations that will build comprehensive atlases of brain cell types.

“Washington State has a rich history of breakthrough research and development in life saving technologies. As we look towards building a stronger culture of innovation and entrepreneurship, we must leverage our history and compete at a higher level to retain this industry.”

Governor Jay Inslee

Economic Impact of the Life Sciences Sector in Washington State

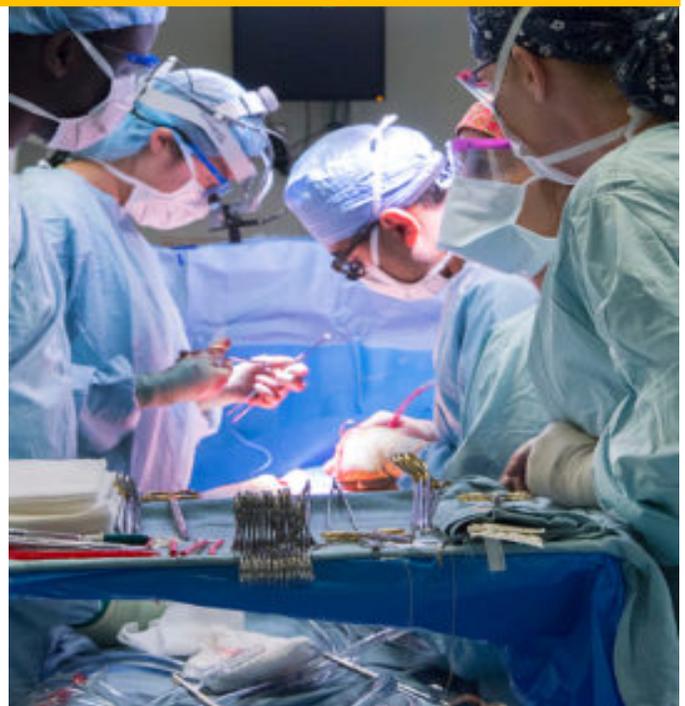
- \$7.8 billion contributed to personal income
- \$12.5 billion added to state GDP
- 98,100 total jobs in the life science sector (direct and indirect)
- 36,300 direct jobs in life sciences
- \$86,400 average annual wage, compared to \$54,400 average wage in all other private sectors

Source: Washington State Life Sciences Economic Impact Report 2016 (Life Sciences Washington)

GLOBAL HEALTH

Companies and research institutions in Washington State’s global health sector improves lives in communities around the world. The presence of the **Bill & Melinda Gates Foundation**, the largest philanthropic organization in the world serves as an industry catalyst, sparking efforts to eradicate disease and enhance patient outcomes.

Representatives from the global health sector include non-profits such as **PATH**, which develops health innovations for women, children and girls; **Intellectual Ventures**, who’s Global Good Fund is the world’s largest investor in inventions for the world’s poor, and the **University of Washington**, who’s School of Public Health ranked No. 3 in the world in 2017.



WE ATTRACT U.S. & GLOBAL COMPANIES

AGC Biologics
Beijing Genomics Institute (BGI)
Blue Heron
Gilead Science
Novo Nordisk
OriGene
Philips Healthcare
Sonosite
ZymoGenetics

SOUTH LAKE UNION & BOTHELL

These two communities are globally recognized life science clusters, attracting worldwide attention and investment. South Lake Union is experiencing extensive redevelopment, transforming the community into a center for biotech, research and IT. The Allen Institute recently opened offices in South Lake Union in addition to Denmark-based Novo Nordisk expanding its presence in the area. AGC Biologics, the world's largest dedicated independent contract manufacturer of biologics, inaugurated its company's new global headquarters in Bothell in 2018.

Did You Know?

- Washington State is #2 in population of STEM professionals *Forbes, 2017*
- Seattle Children's Hospital is ranked #1 in the Northwest *US News & World Report 2017*
- The UW is ranked #3 in best medical schools *US News 2018*
- Led by Dr. E. Donnall Thomas, scientists from Fred Hutch and UW pioneered bone marrow transplantation to treat blood cancers.

COMPANY SPOTLIGHT

• SPACELABS HEALTHCARE

Spacelabs healthcare has been redefining the healthcare industry since 1958. Founded by two scientists, Spacelabs developed the health monitoring systems for NASA used to monitor astronaut health in Gemini and Apollo space missions. Today the company focuses on three divisions: patient monitoring and connectivity, anesthesia delivery, and diagnostic cardiology.

• SEATTLE GENETICS

This biotech company is focused on treating cancer by developing antibody-based therapies. Seattle Genetics is the industry leader in antibody-drug conjugates (ADCs), a technology designed to harness the targeting ability of monoclonal antibodies to deliver cell-killing agents directly to cancer cells. Their first ADC product ADCETRIS is available in more than 45 countries.

• ACUCELA

Sight-threatening ophthalmic diseases impact millions of people worldwide and Acucela has made it their mission to treat and slow their progression. The company strives to accomplish this through an innovative company structure and unique approach. The team's unorthodox path is evident in that they are one of few U.S. based companies to go public on the Tokyo Stock Exchange.

RESOURCES

Biomedical Device Innovation Partnership Zone
<http://www.bothellwa.gov/579/Biomedical-Device-Innovation-Zone>
CoMotion
<https://comotion.uw.edu/>
Life Science Washington
<https://www.lifesciencewa.org/>
Washington Global Health Alliance
<http://www.wghalliance.org>
Washington State Department Of Commerce
<http://choosewashingtonstate.com/why-washington/our-key-sectors/life-sciencesglobal-health>
Washington State University Office of Commercialization
<http://commercialization.wsu.edu>

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GREATER SEATTLE
P A R T N E R S

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