

LIFE SCIENCES & HEALTHCARE

greater seattle

A GLOBAL HUB OF INNOVATION Greater Seattle and Washington State

The greater Seattle region is among the top-five largest life science clusters in the country, with an abundance of talented people and world-renowned institutions collaborating to create a unique and successful industry. Over 70 cities in Washington State host life science organizations, totaling more than 500 biopharma, medical technology, and research organizations.

HOME OF #1 “LIFE SCIENCE STARTUP TO WATCH” OF 2015

(Juno Therapeutics) Source: BioSpace

EXCELLENCE THROUGH COLLABORATION

The Greater Seattle area boasts one of the largest concentrations of life sciences companies in the United States. One of the distinguishing features of the life sciences industry in Greater Seattle is that very little manufacturing takes place in the region. Nearly all life sciences activities in the Puget Sound-area are research and development based. This makes our industry stand out from the rest as one that is dedicated to furthering knowledge in the sector. The work produced by world-renowned research institutions and universities in combination with the innovations of the countless biotech firms in the region, make Seattle one of the top cities in the country for life sciences companies. According to JJI's 2014 Life Sciences Cluster Report, Seattle is one of 10 global life sciences markets to watch – **the only one on this list in the US**. The Seattle life sciences market is considerably smaller than others in the country, but continues to prove its worth in the industry.

Top life science clusters in the US

Cluster	Ranking
Greater Boston Area	1
Raleigh-Durham Metro Area	2
San Francisco Bay Area	3
San Diego Metro Area	4
New York City	5
Los Angeles/Orange Country Area	6
Philadelphia Metro Area	7
Long Island	8
Minneapolis – St. Paul Metro Area	9
Seattle Metro Area	10

Source: JJI's 2015 Life Sciences Outlook Report

WASHINGTON STATE LIFE SCIENCES & HEALTHCARE SNAPSHOT

- 191 Bio-pharma companies
- 294 Medical-device Firms
- 78 nonprofit-research institutions
- 34,000 direct life science employees
- \$904.8 million in NIH Grants



A DIVERSE INDUSTRY

The Washington healthcare industry is multifaceted and companies span the entire range from research and development to production and implementation.

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

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

Juno Therapeutics: This Seattle startup develops immunotherapy treatments for cancer. It raised over \$265 million in a 2014 IPO and signed a \$1 billion licensing deal with Celgene in 2015.

WORLD-CLASS RESEARCH

● University of Washington

One of the top research universities in the world, the UW is the second largest recipient of federal research funding in the nation. Three members of the UW School of Medicine have been awarded grants by National Institutes of Health (NIH) for highly innovative biomedical research. The University ranks fourth in the nation for overall NIH funding.

● Washington State University

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.

● Fred Hutchinson Cancer Research Center

One of the world's leading cancer research institutes, the Fred Hutchinson Center employs more than 200 highly trained 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

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. In 2012, ISB was ranked fourth worldwide by the SCImago Research Group.

● Allen Institute for Brain Science

The mission of the Allen Institute is to produce free publicly available resources that will contribute to worldwide research in the life sciences sector. TIME magazine recently awarded the Institute a "Top Ten Medical Breakthrough of the Year" award.



“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

Life Science Sector Economic Impact in Washington

- \$7.1 Billion contributed to personal income
- \$11.4 Billion contributed to GDP
- 92,400 total jobs in the life science sector
- 34,200 direct jobs in life sciences
- \$83,000 average wage in the life science sector, compared to \$53,000 average wage in all other private sectors

Source: WBBA 2014 Annual Report

FUN FACTS AND ACHIEVEMENTS:

- Seattle has the 13th most patents per capita in the world (Forbes, 2013)
- Seattle Children's Hospital voted 6th best in the nation
- The University of Washington's School of Medicine is ranked #1 in the nation for primary care
- The State of Washington ranks 8th in the United States for NIH funding
- Seattle boasts a life science trade association with over 600 members (WBBA)

CUTTING-EDGE HEALTHCARE

Significant scientific discoveries are being made by both start-up and established bio-pharmaceutical companies within the Greater Seattle region. The state has become a major center for global health, leading efforts to eradicate disease and improve the lives of billions of people. The region provides the industry with the tools necessary to continue discovering and producing life-changing products and services. The world-renowned research institutions within the region not only provide the space and human capital to fuel this rapidly growing industry, but they provide modern, exciting, and innovative means of pushing the boundaries of the healthcare industry. Virginia Mason Medical Center has been continuously recognized for its groundbreaking patient care and dedication to making their patients their #1 priority.



WE ARE ATTRACTING U.S. & GLOBAL COMPANIES

- Amgen
- Philips Healthcare
- ZymoGenetics
- CMC Biologics
- Blue Heron
- OriGene
- Sonosite
- Novo Nordisk
- Battelle
- Gilead Science

SOUTH LAKE UNION & BOTHELL

These two communities are globally recognized life science clusters, attracting worldwide attention and increasing investment. In the coming years, South Lake Union will experience extensive redevelopment to turn the community into a center for biotechnology and research. In the next year, the neighborhood will see the addition of the Allen Institute for Brain Science and the expansion of Novo Nordisk. CMC Biologics, the world's largest dedicated independent contract manufacturer of biologics, just signed a deal that will double the capacity of its operations in Bothell. The relatively high availability of space and low rent costs promise rapidly continuing growth.

RESOURCES:

Life Science Washington
<http://www.lifesciencewa.org/>

Life Sciences Discovery Fund
<http://www.lsdfa.org/>

Bothell Biomedical Manufacturing Innovation Zone
<http://www.wameddev.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/>

Economic Alliance Snohomish County
<https://www.economicalliancesc.org/>

Economic Development Board Tacoma-Pierce County
<https://www.edbtacomapierce.org/>

Economic Development Council of Seattle & King County
<http://www.edc-seaking.org>

Washington Global Health Alliance
<http://www.wghalliance.org/>

COMPANY SPOTLIGHTS

1. VIRGINIA MASON MEDICAL CENTER

Ranked one of the best hospitals in Washington, Virginia Mason is dedicated to reducing the cost of care, designing care methods around patients, and increasing the overall quality of care. The Center is recognized as world leader in transforming care and has a staff of over 5,000 – more than 400 of which are physicians – that work together and collaborate daily to serve the needs of their patients the best.

2. SEATTLE GENETICS

This biotechnology 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, demonstrating their prominence in this field.

3. ACUCELA

Sight-threatening ophthalmic diseases impact millions of individuals worldwide and Acucela has made it their mission to treat and slow their progression. The Acucela team is guided by their goal to serve the needs of patients in this underserved field. They strive to accomplish this through an innovative company structure and unique approach. Their unorthodox path is evident in that they are one of few US based companies to go public on the Tokyo Stock Exchange.



P R O M O T E C O N N E C T E D U C A T E