



## Bioscience in Oregon: Economic Analysis and Overview January, 2009

ECONorthwest was asked by the Oregon Bioscience Association (“OBA”) to measure the economic contributions of the bioscience industry to the Oregon economy. The study, *“The Dimensions and Contributions of the Bioscience Industry in Oregon”* resulted (see [www.oregonbio.org](http://www.oregonbio.org)). The following are the key findings of this study.

### Highlights:

- Contributed \$3.5 billion directly to Oregon’s economy
- Employed more than 13,630
- Average Oregon biotech workers wage: \$55,000
- Provided \$800 million in personal income
- Nearly \$459 million spent on research, with most of this coming from federal funding sources
- Over 600 private companies and research institutions
- Total economic impact of more than \$6 billion and 37,000 jobs.
- And growing...

1. **As defined in this study, Oregon’s bioscience industry directly generated almost \$3.5 billion in output or economic activity, including \$800 million in personal income and over 13,630 jobs in Oregon in 2007.** The economic dimensions for the two major components of the bioscience industry follows:

- The private bioscience industry, defined using The Battelle Institute’s industry definition, consisted of **615 establishments** that generated **\$3.0 billion in output**, and employed **10,218 workers** who received **\$561.7 million in income**. With many production processes requiring high-skilled workers and/or advanced university degrees, the average annual wage in the private bioscience industry was approximately **\$55,000 or almost 40 percent** greater than the 2007 statewide average.

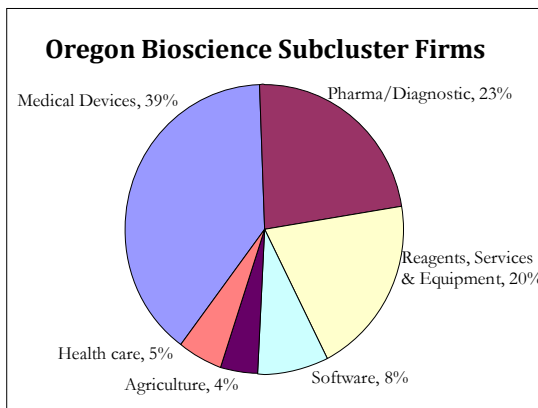
- Funding for life science research conducted in hospitals, institutions and universities has grown in Oregon. Bioscience or “life science” research activities at universities and hospitals will not show up in government statistics for private industry. According to data provided by universities and hospitals, in 2007:
- Spending on life science research totaled **\$458.9 million**. Most of this spending was financed by federal funds, thus life science research brings “new” money into the state.
- Spending on life science research directly generated an estimated **3,420 jobs** (FTEs) and **\$237.8 million** in personal income.

(continued)

**2. Between 2002 and 2007, growth in the bioscience industry was significant and far exceeded the growth rate for the Oregon economy as a whole.** From 2002 to 2007, the following growth in direct impact has occurred cumulatively in Oregon bioscience's private industry and life science research:

- Growth in personal income: **\$313.8 million, or 64.6%**
- Growth in employment: **3,009 jobs or 28.3%**
- Differential in biotech worker income to average Oregonian's pay: **39%**

**Breakdown of subclusters within Oregon's bioscience industry:**



**3. Patents with an Oregonian either as the inventor or assignee steadily increased from 2002 through 2006,** totaling more than 15,000 from 2002-2007, as noted in the *"2007 Pacific Northwest Intellectual Property Metrics"* analysis, commissioned by Portland law firm Swider Medeiros Haver LLP. From 2002 to 2007, the number of federal trademarks issued to Oregonians also increased, totaling more than 8,800. ([http://www.smhllaw.com/wp-content/uploads/2007 Pacific Northwest Intellectual Property Metrics 1.pdf](http://www.smhllaw.com/wp-content/uploads/2007_Pacific_Northwest_Intellectual_Property_Metrics_1.pdf))

• **According to Greenlight Greater Portland and data source Milken Institute in 2007:** More patents per capita were issued to inventors in greater Portland than in San Francisco and than in Denver, Los Angeles, Sacramento and Seattle combined. (<http://greenlightgreaterportland.com/economy/greater-portland-innovation/>)

**Here are some of Oregon's recent bioscience and innovation success stories:**

- "OTRADI: Drug development center gets \$5.2M" - December 7, 2007  
<http://portland.bizjournals.com/portland/stories/2007/12/10/story5.html>
- "Next: Molecular Glue" - November 4, 2008  
<http://www.oregonbusiness.com/.docs/action/detail/rid/34757/pg/10002>
- "OIT students perform remarkable research" - July 18, 2007  
<http://www.oregonbusiness.com/.docs/action/detail/rid/27389/pg/10002>
- "OSU leads the nation in agriculture research" - March 14, 2007  
<http://portland.bizjournals.com/portland/stories/2007/03/12/daily19.html>
- "FDA clears Vesticon Corp.'s medical device for vertigo" - June 26, 2008  
<http://portland.bizjournals.com/portland/stories/2008/06/23/daily43.html>
- "Oregon Medical Laser Center shares grant to treat soldiers" - April 17, 2008  
<http://portland.bizjournals.com/portland/stories/2008/04/14/daily43.html>
- "Gleevec, the cancer drug, stars in clinical trials" - December 3, 2008  
<http://www.oregonlive.com/business/oregonian/index.ssf?/base/business/1228263912108410.xml&coll=7>
- "Corvallis lab to expand work on small pox treatment" - September 4, 2008  
[http://www.oregonlive.com/news/index.ssf/2008/09/corvallis\\_lab\\_to\\_expand\\_work\\_o.html](http://www.oregonlive.com/news/index.ssf/2008/09/corvallis_lab_to_expand_work_o.html)
- "OHSU launches four spinoffs in 2008" - December 29, 2008  
<http://portland.bizjournals.com/portland/stories/2008/12/29/daily15.html>
- "Bioscience industry a force" - August 8, 2008  
<http://portland.bizjournals.com/portland/stories/2008/08/11/editorial3.html>
- "Early cancer studies win UO prof big award" - June 16, 2008  
<http://blog.oregonlive.com/pulse/2008/06/>
- "Research brings \$231 million to OSU professors" - August 18, 2008  
<http://portland.bizjournals.com/portland/stories/2008/08/11/daily31.html>