OREGON POLICIES AND PROGRAMS

HIGHLIGHTS

- Oregon's bioscience sector, which includes bioscience industry and research activities, supported more than 37,000 jobs and contributed $6.2 billion to the state's economy in 2007, including direct, indirect and induced impacts
- The Oregon Translational Research and Drug Development Institute brings together the state's companies, research institutions and government, to work together to accelerate the process of bringing new drugs to the market and new jobs to Oregon
- The state has created a signature research center to stimulate discovery and commercialization in therapeutic, vaccine and diagnostic development

Oregon's Biopharmaceutical Industry

Oregon has a modest though growing bioscience industry.[1] The Oregon Bioscience Association, with sponsorship from private firms and the Oregon University System, commissioned a study to assess the economic impact of the bioscience sector. The bioscience sector was defined as including 1) bioscience-related activities carried out by private industry and identified by industrial classification codes and 2) bioscience-related research at hospitals and universities.[2] Principal findings of the report based on 2007 data are that the sector

- Contributed $3.5 billion directly to the state's economy
- Employed more than 13,630 people
- Paid an average wage of $55,000
- Provided $800 million in personal income
- Channeled $459 million in research, most from federal sources
- Comprised 600 private companies and research institutions
- Had a total economic impact, including indirect effects, of $6 billion and 37,000 jobs.[3]

Biopharmaceutical Sector Performance Measures	OR	US
Direct Employment, 2007	13,630	NA
Direct Employment Growth, 2002-2007	28.3%	NA
Average Annual Wages (Direct Employment), 2007	$55,000	NA
Total Supported Employment (incl. Direct), 2007	37,050	NA
Total Economic Output, 2007 ($ billions)	$6.2	NA
S&L Tax Revenues, 2007 ($ millions)	$250.5	NA
Active Clinical Trials, 2008	1,490	21,795

Source: Oregon Bioscience Association, *The Dimensions and Contributions of the Bioscience Industry in Oregon, January*, 2009.

"The biosciences continue to be an integral part of Oregon's economy. Now, Oregon is growing beyond measure in innovation, start-ups, new research funding, technical expertise and medical device development. From 2002–2007, the number of Oregonian assignees who received patents and trademarks grew, totaling more than 23,000.

Clearly, Oregon's pioneer path has cascaded into the innovation sector, with biosciences leading the way in economic development statewide. With the industry's economic expansion, job growth and accompanying wage increases, it's clear the bioscience industry is poised to lead the way in countering our current economic recession."

Nathan Gibson
Chair, Oregon Bioscience Association
"Annual Report 2008 on Community, Collaboration and Commercialization"
05/19/2009
http://www.oregonbio.org/Portals/0/docs/oba_2008_annual_report.pdf

Oregon's Approach to Growing the Biopharmaceutical Industry

Biotechnology/medical products are one of nearly 20 clusters identified by the Oregon Business Development Department as part of the "Oregon Business Plan," a cluster-based strategy to reorient the state from a natural-resources economy to one based on innovation.[4] The Oregon Business Plan is a public-private planning partnership created in 2002, supplemented by the creation in 2005 of the Oregon Innovation Council (Oregon InC), intended to steer the state's programs for innovation-based economic development.

In turn, Oregon InC has recognized the biosciences as one of three sectors it is targeting with university-based "signature research centers" intended to spur academic/industrial collaboration and rapid commercialization of university discovery. Oregon InC programs are funded by lottery proceeds, and will receive $20.5 million in the current biennium.[5] Both the original Oregon Business Plan bioscience cluster study and a follow-up study commissioned in 2008 recommended that the state government increase the availability of early-stage capital, create a statewide network of bioscience incubators and accelerators, and further develop managerial leadership talent necessary for the cluster.[6]

In one significant change announced in 2009, the state exempted technology-licensing deals negotiated by the public universities from additional external review by the Attorney General. Granting autonomy to university counsel is expected to speed up commercialization efforts across all sectors.[7]

Within six weeks of its operations, researchers at OTRADI tested and identified new compounds with properties capable of prohibiting up to 75 percent of the growth of some forms of fungi, bacteria (including Staphylococcus aureus [Staph A] and Escherichia coli [E. coli]), and parasites that cause malaria. Researchers are conducting tests on almost 200 synthetic compounds that had never been tested for their abilities to destroy organisms that cause infectious diseases. Of the compounds tested, 28 appeared effective as anti-malarial treatments and 21 displayed anti-bacterial and anti-fungal activity. Implications for the findings include new leads for researchers seeking infectious disease treatments for global health problems.

"OTRADI identifies new compounds to treat infectious diseases".
Oregon Translational Research and Drug Development InstitutePress Release, 07/15/2008
http://otradi.org/doc/press_080715.pdf

"No other state has a program where donors can receive such a generous tax credit in return for helping move research from lab to market," Edwards said. "Oregon leads the nation in creating innovative approaches for increasing the return on investment in publicly funded university research. This is an important link in moving innovation to new companies and jobs for Oregon."

State Treasurer Randall Edwards
"Oregon introduces unique 60% tax credit to donors supporting commercialization of university research"
Oregon University System Press Release, 10/04/2007

Major State Initiatives to Attract and Grow the Biopharmaceutical Industry

Oregon Translational Research and Drug Development Institute (OTRADI)

Launched in 2007 with $5.2 million in seed money, OTRADI, one of the state's three signature research centers, is a consortium that includes the Oregon Health and Sciences University and the three research campuses of the University of Oregon system (University of Oregon, Oregon State University, and Portland State University). Its overall mission is to stimulate discovery and commercialization in therapeutic, vaccine and diagnostic development, and its initial focus is on infectious disease therapies. It is creating core facilities and providing assistance in all steps in the pre-clinical pipeline from chemical screening to toxicology to medicinal chemistry. One significant initiative is creation of the "Oregon Collection," a library of promising chemical compounds discovered or screened by the participating institutions. OTRADI is funded at $2.8 million in the FY 2009–2011 budget.[8]

Oregon Venture Development Fund

To provide non-appropriated funds for pre-commercialization and proof-of-concept capacity across the university system, the legislature created a state tax credit for donations to "venture development funds" established at any of the state's eight public universities. Capped at $14 million statewide, the program offers donors credits of 60% on their donations to these funds, capped at $50,000 per year.[9] Such funding, which can be used to build prototypes, conduct testing, or develop business and marketing plans, can be critical to bringing university-developed technologies to the point at which they can attract private investment.

[1] The biopharmaceutical sector is defined as including pharmaceutical and medicine manufacturing and scientific research and development services. The bioscience sector is broader and includes medical devices and agricultural feedstocks and chemicals in addition to biopharmaceuticals. Some states use the term life sciences or biomedical sciences, which often include hospitals and health care institutions as well.

[2] The bioscience industry sectors was defined as including agricultural feedstock and chemicals, drugs and pharmaceuticals, medical equipment and devices and research, testing and medical laboratories.

[3] The Dimensions and Contributions of the Bioscience Industry in Oregon, January 2009, http://www.oregonbio.org/Portals/0/docs/economic_impact_study.pdf.

[4] Oregon Business Plan, http://www.oregonbusinessplan.org/index.html

[5] Governor's Recommended Budget, 2009-2011, http://www.oregon.gov/DAS/BAM/docs/Publications/GRB0911/E_Economic.pdf.

[6] Oregon Bioscience Industry Segmentation and Cluster Analysis, 7/03/08 http://www.washingtonlifescience.com/econ_dev_reports/Oregon_Bioscience_Report_July_2008.pdf.

[7] Oregon Department of Justice, Press Release, 2/26/2009, http://www.doj.state.or.us/releases/2009/rel022609a.shtml.

[8] The Governor's Budget 2009-11, "A Budget for Progress In Challenging Times", http://www.oregon.gov/DAS/BAM/docs/Publications/GRB0911/2009_11GRB_Summary.pdf.

[9] Oregon University System, Press Release, 10/04/2007, http://www.ous.edu/news_and_information/news/100407.php.

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