Oregon Bioscience Association

Annual Report 2008 on Community, Collaboration and Commercialization

AT A GLANCE

The Oregon bioscience cluster is built on the four-cornered foundation of Research, Workforce, Funding and Infrastructure.

In 2007, the bioscience industry in Oregon had a total economic impact of more than $6 billion and 37,000 jobs. This halo effect:

- Contributed $3.5 billion directly to Oregon's economy
- Employed more than 13,630 in direct professional, research and technical positions
- Paid Oregon biotech workers an average wage of $55,000
- Provided $800 million in personal income
- Received nearly $459 million in federal research funds
- Counted more than 600 private companies and research institutions

Source: Oregon Labor Market Information System and *The Dimensions and Contributions of the Bioscience Industry In Oregon* report, published January 2009.

The Oregon Bioscience Association Works for You

Dear Members,

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.

We're especially excited about what's new to this year's report. We present to you our most current economic impact data, which helps describe the role bioscience plays in creating jobs and commerce within Oregon. With *The Dimensions and Contributions of the Bioscience Industry In Oregon* report, published this January by EcoNorthwest, it's proof positive that our cluster continues to grow and prosper, bringing a bright halo effect to Oregon.

We invite you to read on, absorb and plan for 2009 and beyond, traveling onward to more community, collaboration and commercialization. Engage today in these new opportunities for your company, lab, supply chain or classroom!

Bob Lanier, Executive Director

Nathan Gibson, 2009 Chair

2008 Milestones

Throughout 2008, OBA focused on strengthening its core benefits, adding new collaborative opportunities, and reaching out to new members. The response has been substantial, with 70 percent membership growth last year alone. Here is a snapshot of our 2008 accomplishments:

- Funded: In 2008, we received a $170,000 grant from Worksystems Inc. to implement a new workforce development strategy, the first grant of its kind for a professional association in Oregon. By the end of the year, we hosted 51 classes for 422 students across 24 companies for sessions on technical training, FDA and regulatory compliance, Lean manufacturing and project management... Read more on page 2.
- Measured: For the first time in its history, OBA commissioned a formal benchmarking survey to gather data on bio's economic footprint. Coming in at three times the size of the wine industry, the biosciences in Oregon have far greater impact than was known... Read more on page 2.
- Launched: In 2008, we launched three regional bioscience chapters statewide to engage partners more broadly. These started up in the Willamette Valley, Central Oregon and Southern Oregon... Read more on page 3.
- Innovated: Last year we piloted BioResearchConnect, a new platform that brings together researchers, institutions, resources and industry experts to facilitate new agreements, new relationships and better supply-chain usage in Oregon.
- Networked: 2008 saw a spike in the opportunities for networking and collaborations through educational gatherings. Via CEO dinners, BioForum sessions, Bio On Tap and Bio on the Vine events, the annual meeting and cluster meetings, members experienced valuable networking time.

Collaboration > Workforce and Economic Development

Bioscience in Oregon: Growing the Economic Footprint

Despite the troubled economy, biotechnology, life sciences and medical research continue to thrive in Oregon, as measured in the recently released *The Dimensions and Contributions of the Bioscience Industry In Oregon* report, conducted by EcoNorthwest. In 2007, the industry directly and secondarily contributed $6 billion of activity to Oregon's economy and accounted for more than 37,000 jobs. About 602 bioscience-related firms and 13 life science research institutions call Oregon home.

The bioscience cluster is a broad, multi-sector industry drawing from private industry, public institutions and academia. Medical devices and equipment continue to be the largest and most rapidly expanding portion of the cluster. Other sectors include research, testing and medical laboratories; drugs and pharmaceuticals; and bio-agricultural feedstocks and chemicals. Funding for life science research conducted in hospitals, institutions and universities has also continued to grow. Spending on life science research totaled $458.9 million in 2007. Most of this spending was funded by federal funds, thus this type of research is considered to bring "new" money into the state.

In addition, the bioscience industry generated approximately $250.5 million in state and local tax revenues. Secondary economic impacts have also increased through wholesale trade, purchased goods and services, household consumption and support of other business sectors.

The industry is poised to lead the way in countering the recession with its economic expansion, job growth and wage increases. There is great opportunity for additional growth in the number of companies and related employment opportunities through the industry's increasing attractiveness to out-of-state bioscience companies.

BioPro: A New Approach to Workforce Training

WorkSystems, Inc. began a pilot effort in workforce training in 2006 when it made the decision to fund an FDA regulatory training program through the Oregon Bioscience Association. Several Oregon-based companies showed interest by sending members of their staff to the class. The feedback from this initial class was far beyond what anyone could have hoped for, and the official BioPro Workforce Training program was launched in 2008. From February through June 2008 alone, 374 workers from 47 companies participated in almost 44 classes.

This success has inspired WorkSystems, Inc. to graciously again grant $200,000 in 2009 toward the workforce program. This grant from WorkSystems Inc. comes from funding from the Oregon Employer Workforce Training fund. BioPro is administered by the department of Community Colleges and Workforce Development and by the state of Oregon.

BioPro's objectives include developing a more knowledgeable and skilled workforce, improving productivity and enhancing recruiting capabilities to strengthen the Oregon bioscience community.

The classes offered are suited for all levels of staff, and attendees can participate in half-day, full-day or two-day sessions, which may include regulatory and FDA topics, Lean manufacturing, management, applied statistics, marketing, and communications topics. Each class concludes with a basic post-test, and successful trainees receive an Oregon Bioscience Association certificate.

This training partnership between an industry association and a workforce board is helping to grow the bioscience cluster within Oregon. Companies are more engaged with each other and with regional workforce, economic development and training partners. Industry specific training helps staff effectively prepare to operate in an FDA-regulated environment, implement manufacturing best practices, and develop project and communication time management skills.

Growing OBA's Regional Outreach

2008 saw the launch of a regional outreach and engagement strategy in the three new chapters to maximize industry integration, support and exposure.

The three chapters—Willamette Valley, Central Oregon and Southern Oregon—launched last year to address, represent and unify the common concerns of Oregon bioscience-related companies outside of the Portland area. It is vital for each geographic region in Oregon having bioscience companies to form local communities that leverage collaborations between industry, government and academia. Opportunities abound for these chapters, including networking, business collaborations, economic development and workforce training.

The Willamette Valley Chapter began in Spring, 2008. To date 27 companies, 9 industry consultants and more than 25 service sector and research organizations are participating. In addition, Linn-Benton Community College, Oregon State University and the University of Oregon play active roles in addressing the workforce needs of member companies. The chapter takes the "cluster" approach to bring the right mix of industry, educators, researchers, state and local entities investors and interested individuals to the table. Partners, including Oregon State University's Office of Technology Transfer, Life Technologies, Linn-Benton Community College, the Governor's Strategic Training Fund and the Regional Workforce Investment Board, work together to increase the revenue stream of traded sector dollars into the valley.

In the Southern Oregon chapter, 33 organizations have become involved and connections are being established with Southern Oregon Regional Economic Development Inc. At a recent meeting at Ashland's ScienceWorks Museum, several local executives met to discuss training, resources and how to capitalize on the funding appropriated through the federal stimulus package. These chapters also serve the Association as feet on the ground regarding relationships with researchers, academia and institutions.

OBA Shares its Voice

In late 2008, the Oregon Bioscience Association created its capacity to raise its voice on matters of public policy, governmental regulation and legislative affairs. The new government affairs committee went into action, talking to members about issues of importance and carving out an important agenda ahead of the 2009 legislative session.

Strategy was put in place to address the important issues of funding for OTRADI (Oregon Translational Research and Drug Development Institute), support for the potential Life Sciences Collaborative Complex, defeat of a proposed prescriber data ban, and defeat of financial disclosure data that would hinder drug development.

Attention is also being paid to the platform laid out by the national Biotechnology Industry Organization. BIO represents most state bioscience chapters and is advocating patent reform and protections, support of sustainable agriculture and biofuels development, increased SBIR and NIH appropriations, preservation of follow-on biologics, capital formation tax incentives, and acquisition of federal stimulus monies.

FROM A MEMBER

I am writing to let you know that the OBA is becoming (before my very eyes!) a valuable stimulus to my efforts to bring medical device development tasks to Oregon. I have two companies that are relevant in this regard. Innovasa makes a device for medical hemostasis, and Chipper Medical is developing a spine surgery tool.

Much of our work—R&D and manufacturing—has been performed in California , but thanks in great part to the increasingly focused networking I have been able to do through the OBA, I have begun to move development efforts to Portland-based firms. In addition, patent work done previously in Los Angeles and Washington, D.C., is now planned for Portland.

As part of the ongoing research and development work done at Innovasa, I have recently contemplated setting up a plasma fractionation facility to produce certain procoagulant enzymes. Thanks in part to some discussions at a recent OBA "CEO's dinner," I was able to imagine that the resources for this project may be available right here in Oregon.

It is quite clear to me that OBA is exerting an important influence with respect to establishing Oregon (and particularly Portland) as a Silicon Valley of biotech. I think this is a very exciting time for all of us here in Oregon, and I am very happy that OBA has been able to feature so prominently in the development of a sophisticated bioscience community.

Patrick J. Bergin, M.D., President
Innovasa Corporation, Eugene, Oregon

DID YOU KNOW?

Between 2002 and 2007, growth in the bioscience industry was significant and far exceeded the growth rate for the Oregon economy as a whole. In these six years, the following growth in direct impact occurred cumulatively in Oregon bioscience's private industry and life science research:

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

Source: *Oregon Labor Market Information System* and *The Dimensions and Contributions of the Bioscience Industry In Oregon* report, published January, 2009.

Bioscience in the News

2008 saw an unprecedented increase in success stories from around the state. Here are just a few of the headlines we saw:

"Oregon Medical Laser Center shares grant to treat soldiers" April 17, 2008
http://portland.bizjournals.com/portland/stories/2008/04/14/daily43.html

"Early cancer studies win UO prof big award" June 16, 2008
http://blog.oregonlive.com/pulse/2008/06/

"FDA clears Vesticon Corp.'s medical device for vertigo" June 26, 2008
http://portland.bizjournals.com/portland/stories/2008/06/23/daily43.html

"Bioscience industry a force" August 8, 2008
http://portland.bizjournals.com/portland/stories/2008/08/11/editorial3.html

"Research brings $231 million to OSU professors" August 18, 2008
http://portland.bizjournals.com/portland/stories/2008/08/11/daily31.html

"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

"Next: Molecular Glue" November 4, 2008
http://www.oregonbusiness.com/.docs/action/detail/rid/34757/pg/10002

"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

"OHSU launches four spinoffs in 2008" December 29, 2008
http://portland.bizjournals.com/portland/stories/2008/12/29/daily15.html

What kind of Companies Join and Benefit From OBA's Programs and Services?

- Engineering
- Infrastructure
- Construction
- Scientific
- Regulatory
- Quality Systems
- cGMP Manufacturing
- Business and Professional Services
- Financial Services
- Clinical Trials
- Universities and Academic Research Centers

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oregonbio.org
2828 SW Corbett Avenue, Suite 113 | Portland, OR 97201