Oregon Bioscience Association

ADVOCATE. CULTIVATE. EDUCATE.

ANNUAL REPORT 2015-'16

2015 funding for Oregon's bioscience research, innovation and technology transfer

Fiscal Year 2015 saw a dip in funding from the National Institutes of Health, with a decrease of 5 percent, evening out the 6 percent increase from FY 2014. Oregon companies, labs, universities and start ups still received federal grants and awards from myriad sources such as NIH, Small Business Technology Transfer (STTR) and Small Business Innovation Research (SBIR), Department of Defense, and National Science Foundation, among other sources.

NIH Extramural Awards for FY2015 in Oregon: $291,128,895

- Total NIH awards in Oregon for FY2015 = 649 awards to 46 firms
- Current National Science Foundation awards active in Oregon = $179,471,576
- In FY 2014 and FY 2015, SBIR and STTR awards to Oregon firms = $5,638,345

"Growth in the bioscience industry will provide substantial dividends for the Portland region today and into the future, as it is well-positioned to capitalize on our talented workforce and the network of industries already present in our community."

– Tom Hughes, Metro Council President

2015: Delivering on the Promise

2015 was a year of delivering on results. The bioscience industry and Oregon Bio have steadily gained momentum over the last several years. The past year's achievements are a testimony to Oregon Bio's commitment and success in engaging and educating state leaders on every level—efforts that successfully articulated the economic importance of the bioscience sector.

Clearly, two of 2015's most impactful financial events include the successful culmination of the OHSU Knight Cancer Institute's philanthropic efforts to match Phil and Penny Knight's generous contribution of the Knight Cancer Challenge. This record-setting initiative attracted international attention to both the goal of curing cancer, but also the growing reputation of Oregon and our medical research achievements. From a commercial perspective, Genentech's $125 million decision to expand their Hillsboro facility revalidates the economic case for other pharmaceutical manufacturers interested in locating in Oregon.

2015 also saw the conclusion of the first-in-the-nation, BioCatalyst workforce training program, which focused on re-employing Oregon's pool of dislocated workers. The Business Oregon-sponsored pilot program did not disappoint. After fully measuring the placement statistics, more than 70% of graduates found employment. This was triple the projected placement rate, an accomplishment made all the more remarkable considering the average salary garnered by graduates of more than $85,000. BioCatalyst conclusively demonstrated the power of public/private partnerships.

On the economic development front, Oregon Bio created and launched the Central Eastside taskforce, following eighteen months of research and coalition building. This endeavor seizes on the opportunity to help put forth a vision for this valuable, strategic area. This initiative has attracted the support of major municipal, regional and state leaders as we all work to leverage the opportunities presented by this unique confluence of transportation, workforce and medical research and innovation resources.

Last year also showed as a great year for many of Oregon's best-known emerging companies. The beneficiaries included both well-known companies like DesignMedix, Paragon BioTeck, as well as other emerging stars. Of particular note is the growing research reputation of the Providence Cancer Center and the success of their commercialization efforts—with Agonox and UbiVac both attracting licensing interest from powerful multi-national pharmaceutical companies. For the first time, Oregon's growing reputation as an emerging bioscience hub was also on display at the preeminent J.P. Morgan Healthcare investor conference, where Oregon Bio hosted two investor information suites.

In 2014, the Oregon Bio annual conference theme speculated that the Oregon's bioscience sector was at an inflection point. In 2015, this speculation became a reality.

Matt Smits, 2015 Chair

Dennis McNannay,
Outgoing Executive Director

New Executive Director announced

The Oregon Bioscience Association's Board of Directors announced in March Denise McCarty will take over leadership from Dennis McNannay.

McCarty joined the association from the Columbia River Economic Development Council in Vancouver, Washington after three years' leadership. While there, McCarty led the effort to successfully recruit 25 new companies to Clark County, as well as numerous expansion projects. One such project, Banfield Pet Hospital, was awarded Project of the Year by the Washington Economic Development Association in 2015 in acknowledgement of the creative collaboration of numerous public and private partners.

"I am thrilled to have the opportunity to build upon the solid foundation that Dennis McNannay has put in place to further cultivate the bioscience ecosystem in Oregon," said McCarty. In collaboration with the Port of Vancouver, she also managed the planning and initial implementation of the new Columbia River Life Sciences Building in Vancouver.

Before joining CREDC, McCarty worked for 16 years at Avnet Electronics marketing. She directed global business management, overseeing two multi-national corporations with 60 operating sites. •

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Now here's a tool we need: New interactive map of OR's bioscience companies - bizjournals.com/portland/blog/ .... **Thanks** @OTRADIBio

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Clean technology and high job placement rate marks dynamic growth for BioPro and BioCatalyst programs

As Oregon Bio's BioPro training and certification progressed to a more expansive, more stably funded program over the past 12 months, one central theme in its evolution remains: Staying nimble and listening to what Oregon's bioscience companies need in workers' skill sets means employers and employees both succeed.

Just ask Robert Wilmington, a product marketing manager with Cambia Health Solutions whose BioPro training experiences have ranged from "Business Communications" to "Overview of the FDA."

"The Oregon Bio program solicits direct input from the sector's companies about the unique skills that are frequently missing from individuals interested entering this industry segment or moving between companies," Wilmington said.

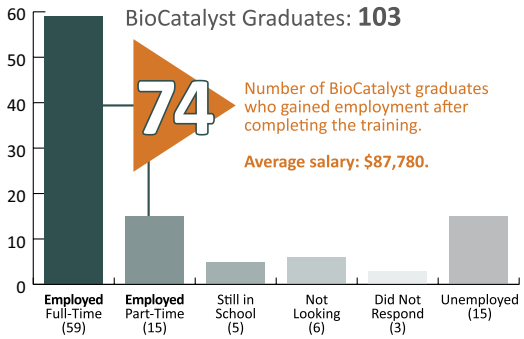
Julie Black, director of Oregon Bio's member services, training and business development, agrees that the growth, stability and effectiveness of BioPro come down to the constant dialogue with the industry and its hiring trends.

"Our steering committee puts all of this together in a very collaborative effort with the industry in order to build the most relevant, robust training curriculum," said Black. "If we have companies starting to hire more process engineers, for example, we can quickly produce training options to reflect the skills needed in those job openings."

The BioPro training umbrella features both the BioCatalyst and BioBridge programs for workforce training and certification. Black said Biotronik-MSEI in Lake Oswego was a key industry partner that helped give Oregon Bio's workforce training the foundation for its many offerings Oregon biocompanies and workers benefit from today.

In 2015, BioPro's grant funded classes cast a big net to serve the local industry's bio-training needs. One Oregon Bio grant area designed for employed workers, for instance, is known as BioBridge. While initially incorporating industry experts in 2014 to conduct classes such as "Medical Devices" and "Health and Safety," the program expanded its curriculum extensively in 2015. Over the past year, BioBridge offered several cohorts focused on Lean Six Sigma "Yellow Belt" she describes as "hugely successful" and "very popular with Oregon Bio member companies."

BioCatalyst Employment and Placement



The other branch of Oregon Bio's grant-funded training in 2015, the BioCatalyst Advanced Training, focused on unemployed and underemployed workers. Following $325,000 in grants awarded both by the 2015 Legislature and from Business Oregon in 2014, the BioCatalyst program trained 103 students in classes ranging from "Quality Assurance" and "Medical Device" to "Cloud Computing." Refining the displaced workers' job-seeking skills and gaining exposure to industry hiring managers, BioCatalyst graduates were poised to compete for Oregon jobs that otherwise might have gone to out-of-state candidates. Black said Oregon Bio completed all of the Business Oregon grant's training in 2015, placing 74 of the 103 graduates in jobs.

Separately, Worksystems, Inc. (WSI), a non-profit focused on improving workforce quality through training, funding and other resources in Multnomah and Washington Counties, has partnered with Oregon Bio in the BioPro grant programs. In 2014 and 2015, a Metro In-Sourcing Training Initiative grant from WSI totaling $143,000 supported the BioBridge training to upskill employed workers. Black said WSI also awarded a Reboot grant of $150,000 for unemployed bio professionals.

Last year, 90 employees of Hillsboro's SolarWorld were trained through Oregon Bio's Lean Six Sigma "Yellow Belt" certification program. SolarWorld set out to extend the training, so 30 of its employees were soon training in the Lean Six Sigma "Green Belt" certification program.

"We've had a great relationship with the Oregon Bioscience Association," said Jesse Aronson, a senior project manager with WSI. "We're pleased that, along with others, we've been able to bring resources to the region that have touched a lot of individual workers and companies."

For the rest of this BioPro story, go to www.oregonbio.org/bio-in-oregon/industry-reports. •

As Oregon bioscience companies hum, so does the next generation in the OTRADI incubator

As Oregon's bioscience industry continues its impressive growth, it follows that the OTRADI Bioscience Incubator (OBI) is at capacity and bursting at the seams.

Over the last half of 2015, the OBI, located in Portland's South Waterfront district, has added eight startup bio companies and a venture capital company to its initial six.

"I'm happy we filled the incubator to capacity very quickly," said Jennifer Fox, Ph.D., executive director of the Oregon Translational Research and Development Institute (OTRADI). "I'm also incredibly happy the state has put funding into incubating bioscience companies and recognizing this opportunity here in Oregon."

Fox said a $325,000 commitment from the Governor's strategic Reserve Fund in 2015 enabled OTRADI to expand the two and-a-half-year-old OBI from 14,000 to 18,000 square feet – enough to host and support the companies working to establish themselves independently.

OTRADI's incubator tenant list now includes 14 companies that share equipment and have access to bio-mentoring.

"The incubator has been absolutely fantastic in helping us get started," said Tracy Thompson, CEO of Costanoan Immunotherapies. "We now have real wet labs where we can do real molecular biology, a great network of area contacts and support in our grant writing.

"I looked for five years for a suitable place to land that wasn't insanely expensive to live and work and still had access to talent and capital. We found that at OBI," added Thompson.

Even though there isn't an iron-clad time limit on a startup's length of residence at OBI, Fox said companies are generally at incubators for two to five years. She said some companies graduate because they've added employees and need more space, or they've attracted major funding and can move onto their next stage. OTRADI's goals with an OBI tenant include raising the startup's profile and attract funding from other companies, investors and angel groups, as well as find the company space in Oregon when it's ready to move out of the OBI – especially to create more Oregon jobs.

In addition to its bio-startup tenants, the OBI facility houses OTRADI's 3,000 square-foot Portland lab where specialized equipment aids in drug-discovery research. The activity in the lab involves experiments in the early, idea stage of drug discovery.

The Portland lab inspired the OTRADI-South lab in Corvallis, at Oregon State University's campus – a facility created with OSU's College of Pharmacy that took hold in 2015. Fox said OTRADI-South is going strong, running 10 projects for a number of professors there. She said just as the OTRADI lab in Portland is critical for testing performed by OHSU researchers, the same demand inspired the OTRADI-South lab to provide the best testing environment for Oregon State and U of O research professors.

Fox said Oregon Bio and OTRADI's goal of growing bioscience companies throughout the state has been energized not only by the popularity of OTRADI-South, but also by its BioMentor program's statewide outreach.

With the goal of having bio experts share specialized knowledge with both established and budding members of the bioscience community, OTRADI added 80 mentors to the program in 2015. Fox said the enthusiasm surrounding the BioMentoring program has been increased by the hiring of new OTRADI Operations and Programs Officer Sarah Biber. OTRADI has begun regular 'Lunch and Learn' workshops for the bio-community entreprenurial education.

Fox said the statewide outreach continues to include work with the growing Central Oregon bioscience community and the goal of establishing facilities that allow Bend to serve as a networking hub for bio-entrepreneurship and startup company incubation.

"Our whole mission is making sure we are launching companies ready to stand on their own," said Fox of the OBI. "Once they graduate from the incubator, we want to help them find space, funding and people to help grow a larger, more prosperous and job-filled bioscience landscape in Oregon." •

OTRADI's incubator client companies:

- AbSci (cancer, autoimmune, blood disorder and hormone therapies)
- Aronora (anti-thrombotic drug therapy)
- BV Biomed (neuro-degenerative disease compound discovery)
- Costanoan Immunotherapies (bio-nanoparticle technology)
- Floragenex (RAD Sequencing applications)
- Gamma Therapeutics (blood-clot biotechnology/medical devices)
- GeTein Biomedical (in-vitro biotechnology)
- Neuralexo (tissue-protection biotechnology)
- Oregon Heart (T.A.H. – total artificial heart technology)
- Senju Pharmaceutical (ears, eyes, nose, skin and throat products)
- Sonivate Medical (ultrasound technology)
- Sympano (medical diagnostics)
- 13therapeutics (anti-inflammatory therapeutics)
- TomegaVax (immunotherapy)

The incubator also houses Northwest Technology Ventures (a formation-stage venture fund). •

Angel investors keep close eye on opportunities in Oregon's bioscience ecosystem

When it comes to the dynamic topics of life-science startups and investment opportunities in Oregon and beyond, Don Megrath gets on a roll.

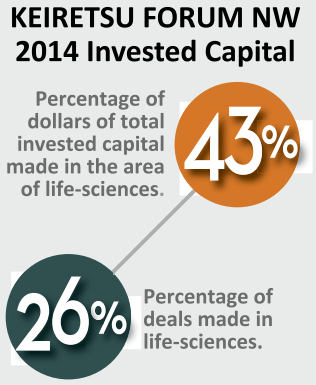
"The players and the ecosystem here in Oregon are continually growing and changing," an enthusiastic Megrath said of the state's bioscience scene. "It wasn't long ago I heard many angel investors saying they were avoiding early-stage, life-science companies because of the regulatory risks and length of time involved. It's definitely a different landscape now than it was five years ago."

Megrath, a Portland-based angel investor and co-founder of VectorPoint Ventures, served as the moderator of Oregon Bio's 2015 "Pitchfest" event where nine bioscience startups competed to win "best pitch" in categories such as Emerging Bioscience (won by startup Ab-Sci) and Digital Health (won by companies Health123 and Motiosens).

"A total of $32.8M was invested by the Keiretsu Northwest Chapter in life-science companies – many located in the Northwest region since 2006."
– Mark Kraus, Keiretsu Forum NW

He said the event continues to be an excellent opportunity for startups to hone their pitches for angel investors because the event's environment resembles that of venture-capital or angel-investor meeting or conference. The Davis Wright Tremaine law firm awarded the Pitchfest winners with approximately $3,000 each in legal services.

"Any CEO feels honored to present in respected forums such as Oregon Bio's Pitchfest event," Megrath said. "The startups' leaders get the chance to pitch in front of people at the forums who are potential investors or advisors, or in front of people there who may lead the company to eventual investors.



For the rest of the story, go to www.oregonbio.org/bio-in-oregon/industry-reports. •

2015 an active legislative session for Oregon Bio

During the 2015 session, Oregon Bio's advocacy efforts focused on dozens of issues critical to Oregon[1]s bioscience and biotech sector. Here is a summary of some of the key issues where Oregon Bio took a leadership role.

Patient Access to Non-FDA approved products (HB 2300 "Right to Try"):
Oregon Bio led efforts to educate legislators on the risks associated with Oregon allowing terminally ill patients to procure non-FDA approved drugs, known as the "Right to Try." Oregon Bio testified in various committees and met with a variety of legislators and stakeholders to explain ethical concerns, risks to clinical trials, application of the FDA's "Compassionate Use" program, and other policy developments around the country. Ultimately, the legislature agreed to Oregon Bio's guidance, seeking language providing liability protection for manufacturers and distributors as well as informed consent to patients about Compassionate Use.

Research and Development Cost Reporting (HB 3486):
Oregon Bio took a leading role in opposing HB 3486, which died in the House Health Care Committee. HB 3486 would have required drug manufacturing companies to report research and development costs to the Oregon Health Authority, not only placing valuable trade secrets and other proprietary information at risk, but posing serious antitrust concerns.

HB 3486 was especially threatening to many Oregon Bio small Oregon companies that would have been forced to do business elsewhere to survive rather than comply with a bill with no clear connection to reducing health care costs.

Following the session, Oregon Bio secured a seat on the House Health Care Committee's interim workgroup on drug pricing to further address these issues.

Medication Adherence (SB 93 and SB 841):
Oregon Bio joined in coalition with a variety of patient groups, pharmacies and pharmacists in passing two separate bills that would facilitate adherence to prescriptions, thereby improving health outcomes and reducing overall health care costs.

SB 93, a bill borne of Oregon's efforts regarding earthquake resiliency planning, allows patients to receive 90-day supply of prescriptions for chronic conditions through their local retail pharmacy. SB 841 allows patients to synchronize prescriptions to fill multiple prescriptions on the same day of the month, avoiding multiple trips to the pharmacy.

Both bills are important developments to ensure the ethical and effective use of the products our members produce.

Enterprise Zones (HB 2643):
Several Oregon Bio members leverage enterprise zones to reduce costs in locating or expanding operations in Oregon. This can be critical to Oregon Bio members weighing whether to expand operations in Oregon or invest elsewhere. HB 2643 removes the limit on the number of Enterprise Zones in Oregon, allowing local governments to act more quickly when incentivizing potential investment or expansion in Oregon. Oregon Bio worked with the bill's sponsor, the Senate and House revenue committees and the governor's staff to advocate for its passage.

Other:
Oregon Bio submitted testimony or met with legislators on myriad other topics affecting biotech companies conducting business in Oregon, including research and development tax credits, workforce development issues, biosimilars, pricing for medical devices, taxation of foreign affiliates, and other issues germane to our members' businesses. •

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