

# OREGON

The largest bioscience subsector in Oregon is medical devices and equipment (4,766 jobs). Medical devices and research, testing, and medical laboratories each grew faster than the nation during the 2001–2006 period. Biological sciences accounted for the largest share (42 percent) of the \$388 million in academic bioscience research expenditures. During the past 6 years, \$121 million in bioscience venture capital was invested, mainly in human biotechnology, followed by medical/health information technology, medical diagnostics, and pharmaceuticals. The 1,112 bioscience patents issued over the same period were also well diversified across fields.

### Major Industry Developments and Recent Successes

- **Genentech** selected Hillsboro as site for a biotherapeutics “fill/finish” facility targeting up to 300 new jobs by 2015. State incentives included worker training and infrastructure improvements.
- Several Oregon companies were acquired without relocation by **Welch Allyn**, **Biotronik**, and **Invitrogen**, leaving R&D and manufacturing facilities in-state.

### Recent State Initiatives

In 2007, Oregon appropriated a \$5.25 million seed grant for start-up of the **Oregon Translational Research and Drug Development Institute (OTRADI)**, the second of three “signature research centers” planned by the Oregon Innovation Council. A collaboration among all the State’s principal research universities, OTRADI will provide commercialization support to start-up bioscience companies, starting with shared availability of a new **High Throughput Screening Facility**. The appropriations also include funding for faculty recruitment at the participating universities.

Since the last BIO report, Oregon’s universities also began raising funds for commercialization support through the State’s **University Venture Development Fund**, which authorizes donors to these funds to take offsetting tax credits. The State Treasurer’s Oregon Growth Account also received expanded authority to invest in venture-capital funds targeting investments in the region.

For additional information on Oregon’s bioscience policies and programs, please see <http://econ.oregon.gov>, <http://www.oregoninc.org>, and <http://www.oregonbio.org>.

## Bioscience Industry Base, 2006

Industry Subsector	Oregon		United States	
	2006	2001-06 Change	2006	2001-06 Change
<b>Agricultural Feedstock &amp; Chemicals</b>				
Establishments	36	85.0%	2,183	3.8%
Employment	496	40.9%	105,846	-6.1%
Location Quotient	0.37		n.a.	
Direct-Effect Employment Multiplier	5.09		11.22	
Total Employment Impact	2,522		1,214,709	
Average Annual Wage	\$49,377		\$67,870	
<b>Drugs &amp; Pharmaceuticals</b>				
Establishments	35	-7.9%	2,654	1.9%
Employment	749	-2.1%	317,149	4.0%
Location Quotient	0.19		n.a.	
Direct-Effect Employment Multiplier	3.62		9.92	
Total Employment Impact	2,709		2,880,242	
Average Annual Wage	\$37,509		\$86,892	
<b>Medical Devices &amp; Equipment</b>				
Establishments	287	7.5%	15,215	0.3%
Employment	4,766	13.5%	422,993	-0.9%
Location Quotient	0.89		n.a.	
Direct-Effect Employment Multiplier	2.86		4.85	
Total Employment Impact	13,652		1,980,128	
Average Annual Wage	\$43,997		\$59,441	
<b>Research, Testing, &amp; Medical Laboratories</b>				
Establishments	285	29.6%	22,857	32.7%
Employment	3,551	25.4%	449,991	17.8%
Location Quotient	0.62		n.a.	
Direct-Effect Employment Multiplier	2.26		3.25	
Total Employment Impact	8,029		1,440,500	
Average Annual Wage	\$58,712		\$71,284	
<b>Total Private Sector</b>				
Establishments	122,396	11.5%	8,575,730	10.2%
Employment	1,432,999	6.7%	113,463,842	3.1%
Average Annual Wage	\$37,711		\$42,272	

Note: n.a. = metric is not applicable.

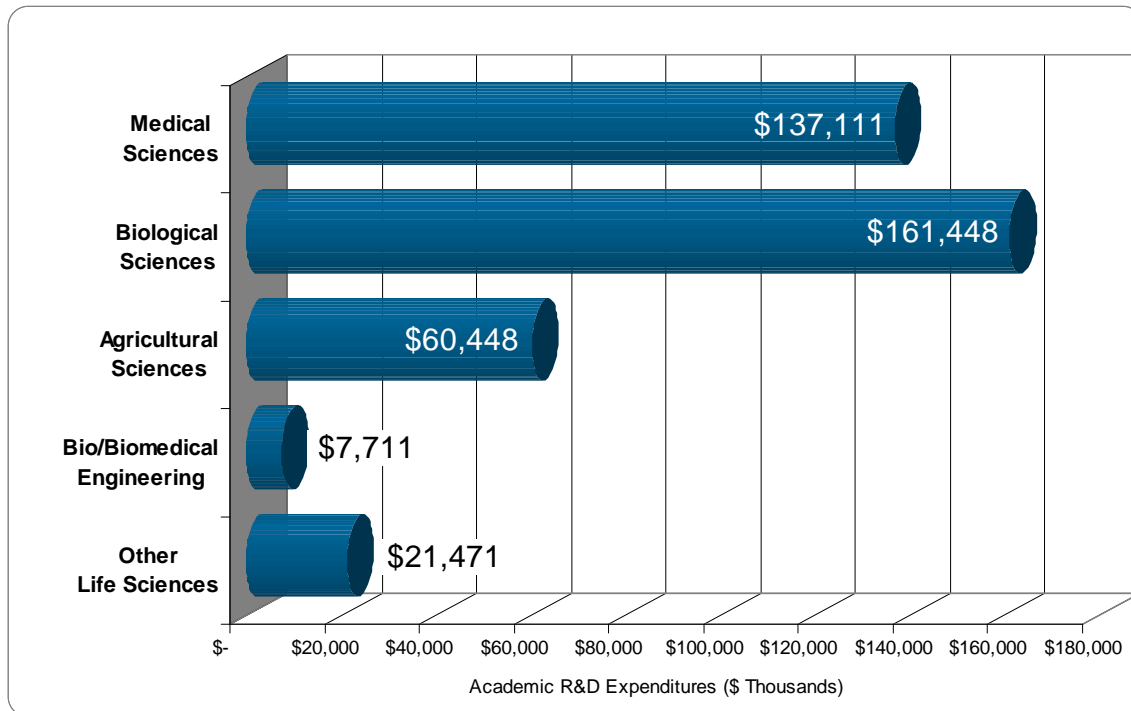
## Additional Bioscience Performance Metrics

### Summary of State Performance in Selected Bioscience-related Metrics

	Oregon	United States	Rank
Academic R&D Expenditures, FY 2006			
Total (\$ thousands)	\$557,405	\$47,760,402	26
Bioscience R&D (\$ thousands)	\$388,189	\$29,307,628	24
Bioscience Share of Total R&D	69.6%	61.4%	
Bioscience R&D Per Capita	\$105.17	\$98.10	
Change in Bioscience R&D FY 2002–2006	43.7%	36.9%	
NIH Funding, FY 2007			
Total (\$ thousands)	\$277,732	\$21,066,389	20
Per Capita Funding	\$74.11	\$69.84	
Change in Funding, FY 2002–2007	18.7%	11.2%	
Higher Education Degrees in Bioscience Fields, AY 2006	1,748	143,433	29
Employment in Bioscience-related Occupations, 2006	6,250	588,520	25
Bioscience Venture Capital Investments, 2002-2007 (\$ millions)	\$120.5	\$51,260.9	30
Bioscience and Related Patents, 2002-2007	1,112	121,817	29

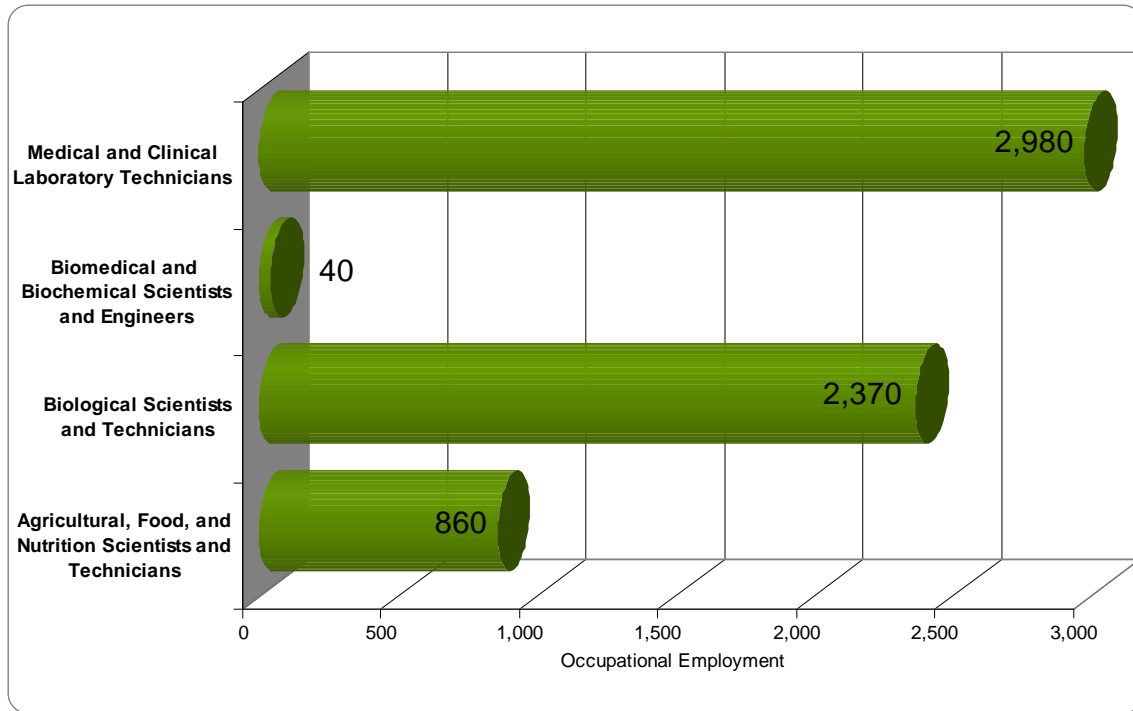
## Bioscience R&D Base

### Bioscience Academic R&D Expenditures in Oregon, FY 2006

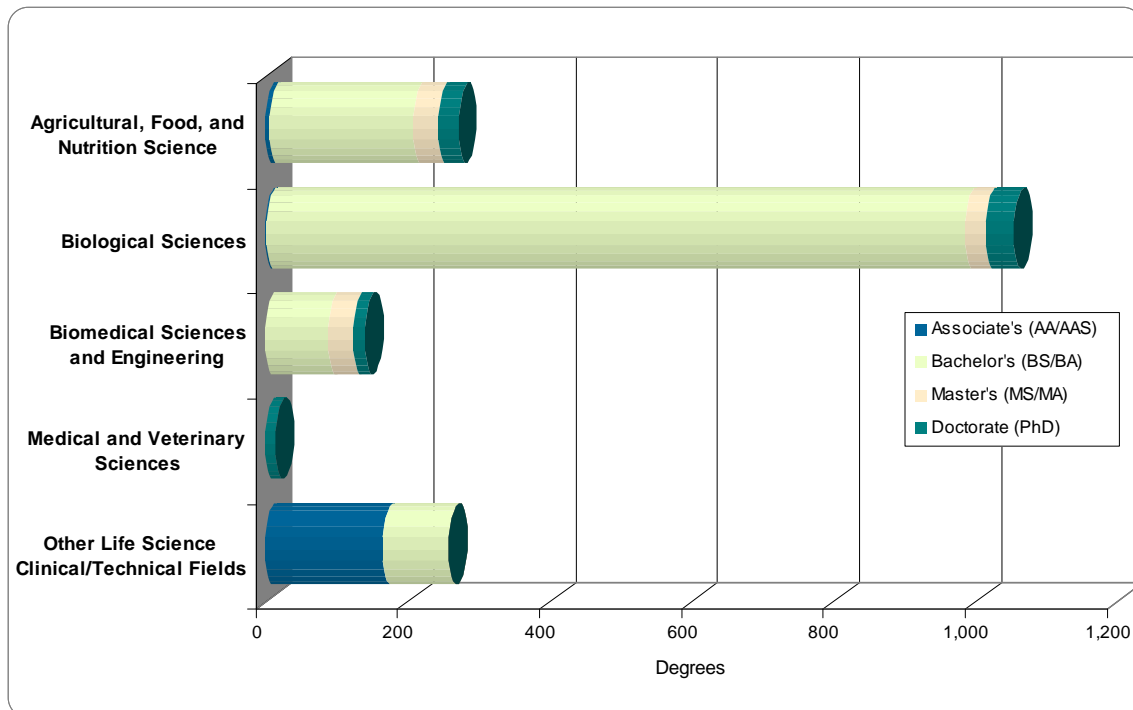


## Bioscience Talent Base

### Bioscience-related Occupational Employment in Oregon, 2006

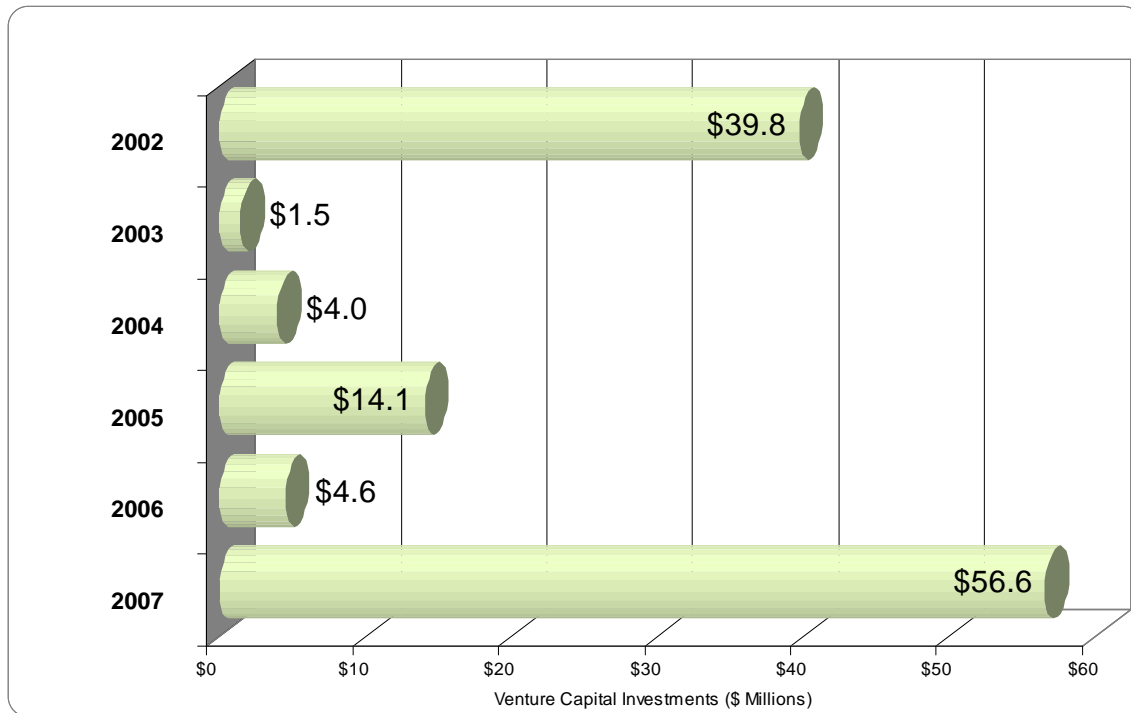


### Bioscience-related Degrees in Oregon, AY 2006

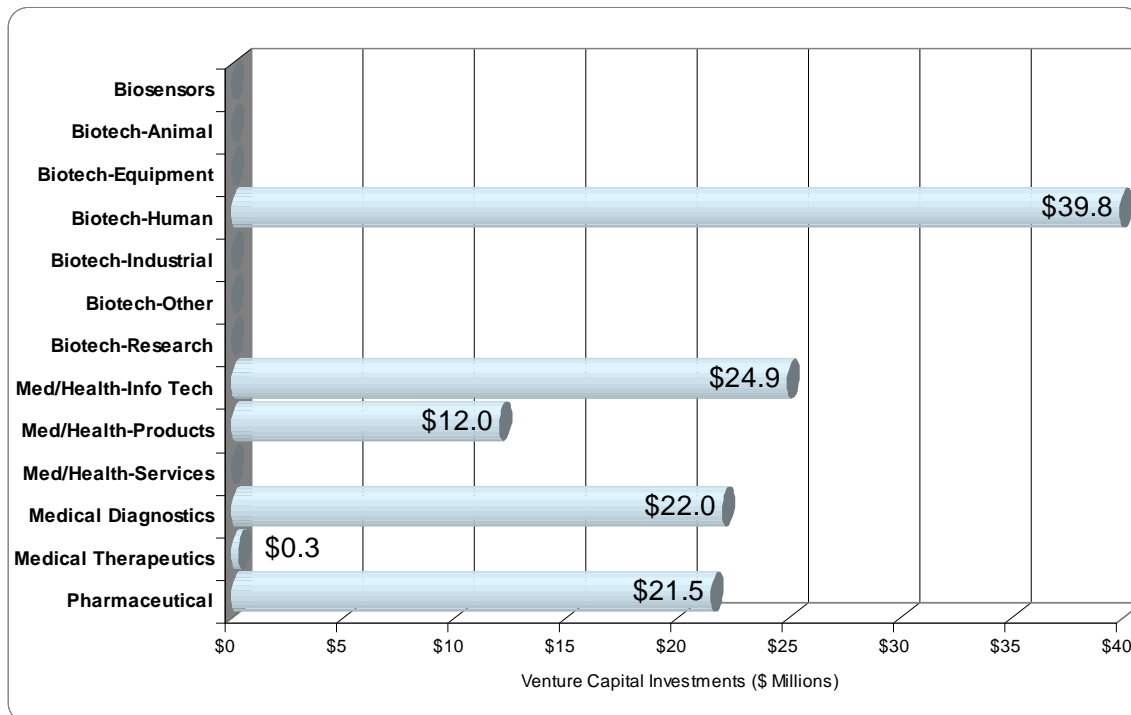


## Bioscience Venture Capital

### Bioscience-related Venture Capital Investments in Oregon, 2002–2007

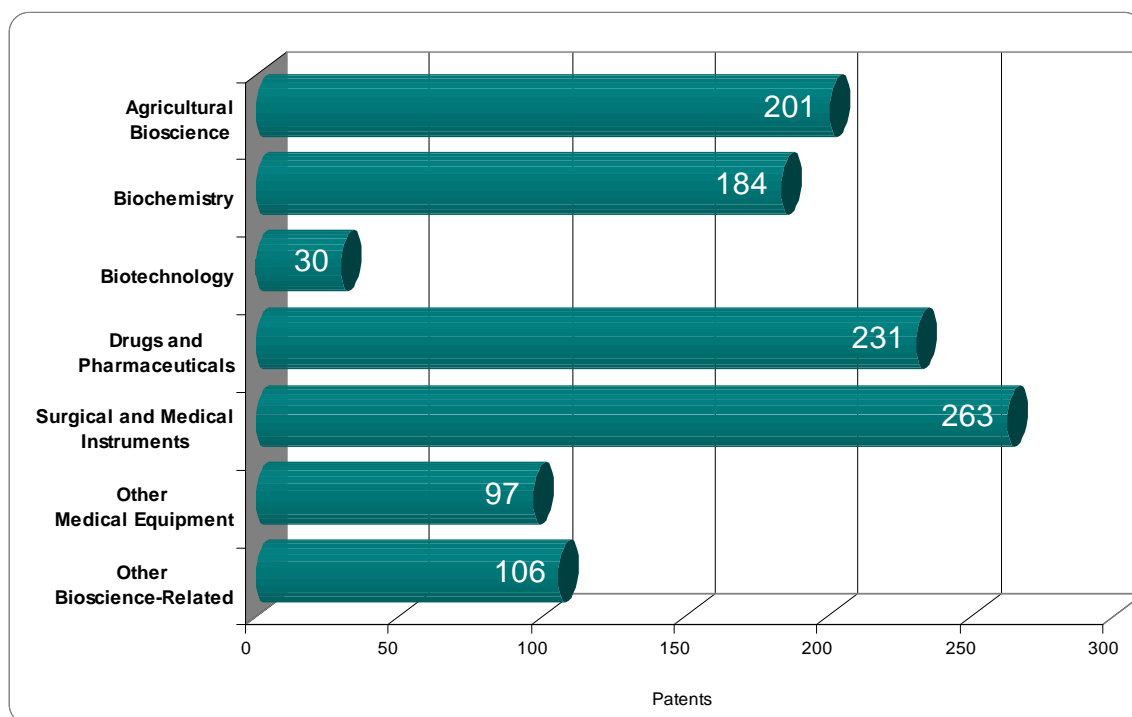


### Bioscience-related Venture Capital Investments in Oregon by Segment, 2002–2007



## Bioscience Patents

### Bioscience-related Patents by Classification Group in Oregon, 2002–2007



## State Bioscience Contacts

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### Source Notes:

**Employment, Establishment, and Wage Data:** U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW) industry data provided by the Minnesota IMPLAN Group, 2001 and 2006.

**Employment Multipliers:** U.S. Bureau of Economic Analysis RIMS II Employment Multipliers, 2005 (most currently available).

**Academic R&D Expenditures:** National Science Foundation (NSF) Survey of Research and Development Expenditures at Universities and Colleges, 2002 and 2006.

**NIH Funding:** National Institutes of Health – Office of Extramural Research, Award Trends – Dollars Awarded by State, 2002 and 2007.

**Higher Education Degrees:** National Center for Educational Statistics, Integrated Postsecondary Education Data System (IPEDS), 2006.

**Occupational Employment:** U.S. Bureau of Labor Statistics, Occupational Employment Statistics (OES) survey data, 2006.

**Venture Capital:** Thomson Reuters VentureExpert Database, 2002–2007, as of May 1, 2008.

**Patents:** U.S. Patent & Trademark Office data as available from the Thomson Reuters' Delphion Patent Analysis Database, 2002–2007, as of May 1, 2008.

For a more detailed discussion of the data and methodology used please see the Appendix to the full national report.