



# Oregon

The Bioscience Economy: Propelling Life-Saving Treatments, Supporting State & Local Communities

Oregon’s bioscience industry has experienced strong growth since 2016, with state firms increasing their employment base by 11.5 percent. In 2018, Oregon had nearly 15,000 bioscience jobs that span 1,333 business establishments across the state. Four of the industry’s five subsectors contributed to the overall employment increase. The state’s research universities conducted nearly \$567 million in bioscience-related R&D in 2018. Oregon has a particularly strong focus in biosciences research across its universities, accounting for 73 percent of all academic R&D. Funding for university research has been fueled by steady increases in NIH awards which by 2019 totaled \$399 million. Venture capital investments in Oregon bioscience companies have been increasing and totaled nearly \$262 million during the 2016-19 period.

## Bioscience Performance Metrics

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

Metric	Oregon	United States	Quintile
<b>Bioscience Industry, 2018</b>			
Bioscience Industry Employment	14,943	1,869,955	III
Bioscience Industry Location Quotient	0.61	n/a	IV
Bioscience Industry Establishments	1,333	101,143	III
<b>Academic Bioscience R&amp;D Expenditures, FY 2018</b>			
Academic Bioscience R&D (\$ thousands)	\$566,618	\$47,183,197	III
Bioscience Share of Total Academic R&D	73%	63%	I
Academic Bioscience R&D Per Capita	\$135	\$144	II
<b>NIH Funding, FY 2019</b>			
Funding (\$ thousands)	\$399,354	\$30,886,675	II
Funding Per Capita	\$95	\$94	II
<b>Bioscience Venture Capital Investments, 2016-19 (\$ millions)</b>	\$261.69	\$102,728.33	III
<b>Bioscience-Related Patents, 2016-19</b>	1,248	108,438	III

State ranking figures for bioscience performance metrics are calculated as quintiles, where I = top quintile, III = middle quintile, and V = bottom quintile. For source notes, see end of State Profile.



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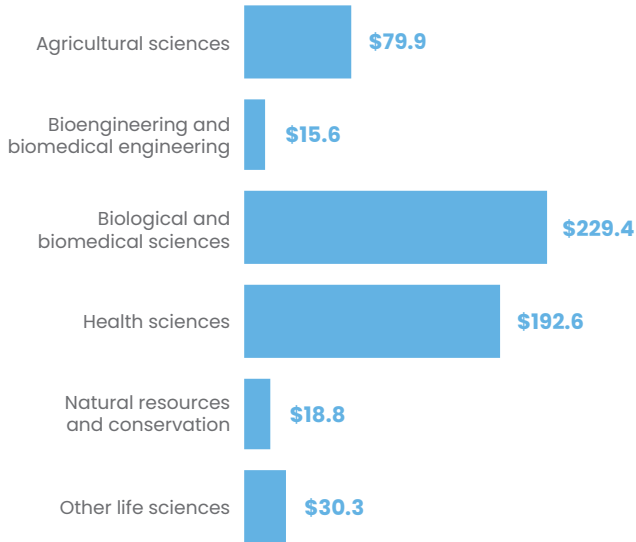
Industry Subsector	Oregon		United States	
	2018	2016–2018 Change	2018	2016–2018 Change
<b>Agricultural Feedstock and Industrial Biosciences</b>				
Establishments	42	9.8%	1,785	4.4%
Employment	580	6.2%	68,642	0.9%
Location Quotient	0.64		n/a	
Direct-Effect Employment Multiplier	4.51			
Total Employment Impact	2,616			
Average Annual Wage	\$63,118	6.5%	\$83,151	2.7%
<b>Bioscience-Related Distribution</b>				
Establishments	689	109.7%	51,582	31.8%
Employment	5,927	32.0%	545,055	16.1%
Location Quotient	0.83		n/a	
Direct-Effect Employment Multiplier	3.44			
Total Employment Impact	20,393			
Average Annual Wage	\$92,774	41.5%	\$105,905	13.1%
<b>Drugs and Pharmaceuticals</b>				
Establishments	51	13.3%	4,451	18.6%
Employment	1,027	21.7%	308,357	3.1%
Location Quotient	0.25		n/a	
Direct-Effect Employment Multiplier	4.22			
Total Employment Impact	4,330			
Average Annual Wage	\$57,902	10.5%	\$113,544	-0.2%
<b>Medical Devices and Equipment</b>				
Establishments	115	5.5%	8,753	8.3%
Employment	4,683	10.2%	378,431	5.3%
Location Quotient	0.94		n/a	
Direct-Effect Employment Multiplier	2.53			
Total Employment Impact	11,828			
Average Annual Wage	\$69,896	-11.0%	\$90,541	6.8%
<b>Research, Testing, and Medical Laboratories</b>				
Establishments	436	4.6%	34,572	4.7%
Employment	2,725	-16.7%	569,470	4.0%
Location Quotient	0.36		n/a	
Direct-Effect Employment Multiplier	2.10			
Total Employment Impact	5,736			
Average Annual Wage	\$70,391	6.0%	\$120,320	12.5%
<b>Total Bioscience Industry</b>				
Establishments	1,333	42.1%	101,143	18.0%
Employment	14,943	11.5%	1,869,955	7.2%
Location Quotient	0.61		n/a	
Direct-Effect Employment Multiplier	3.01			
Total Employment Impact	44,903			
Average Annual Wage	\$77,973	13.4%	\$107,610	8.7%
<b>Total Private Sector</b>				
Establishments	150,037	6.0%	9,776,674	3.1%
Employment	1,647,397	5.8%	125,195,944	3.3%
Average Annual Wage	\$52,082	6.6%	\$57,043	6.9%

Note: U.S. employment metrics include Puerto Rico.

## Bioscience Research in Oregon

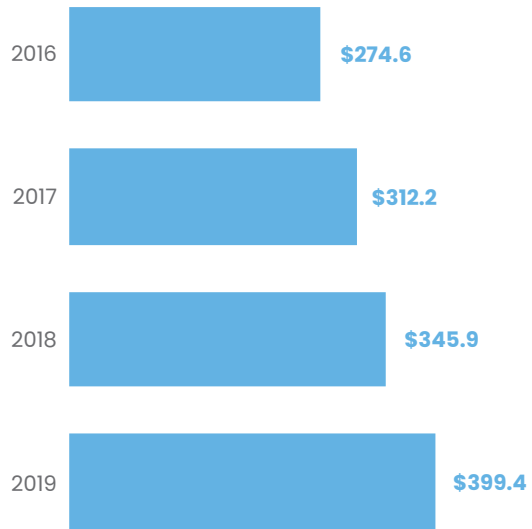
### Bioscience Academic R&D Expenditures

\$ Millions, FY 2018



### NIH Awards

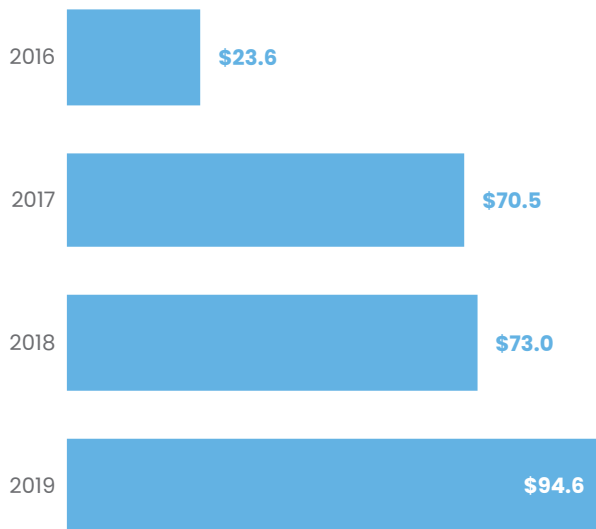
\$ Millions, FY 2016-2019



## Bioscience Venture Capital in Oregon

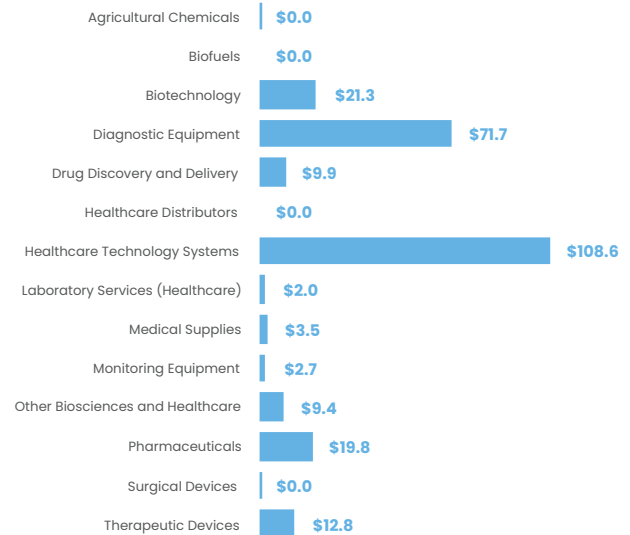
### Bioscience-Related Venture Capital Investments

\$ Millions, 2016-2019



### Bioscience-Related Venture Capital Investments by Segment

\$ Millions, 2016-2019

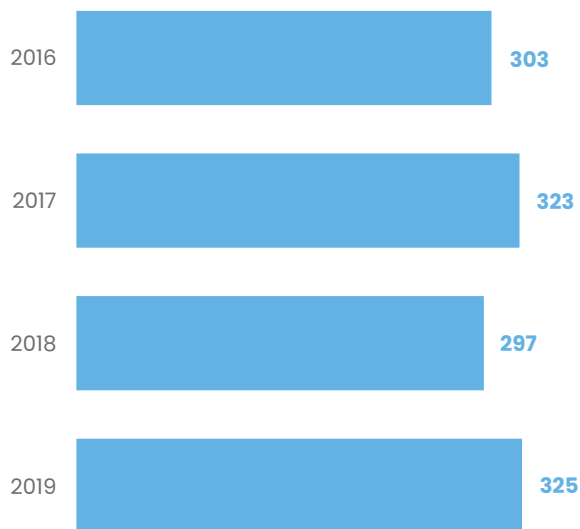




## Bioscience Patents in Oregon

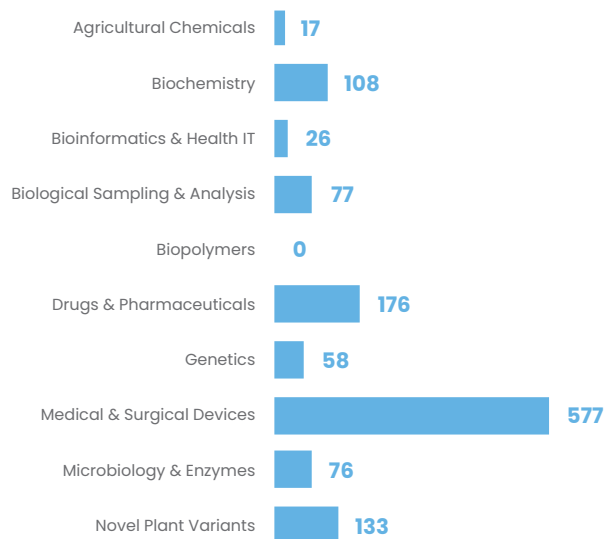
### Bioscience-Related U.S. Patents

2016-2019



### Bioscience-Related U.S. Patents by Segment

2016-2019



## Source Notes

Employment, Establishments and Wages: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW), enhanced file from IMPLAN Group, LLC.

Employment Multipliers: state-level Input/Output models from IMPLAN Group, LLC.

Academic R&D Expenditures: National Science Foundation (NSF), Higher Education Research and Development (HERD) Survey.

NIH Funding: National Institutes of Health, NIH Awards by Location & Organization (summary information within RePORT database).

Venture Capital: PitchBook Data, Inc.

Patents: U.S. Patent & Trademark Office data from Clarivate Analytics' Derwent Innovation patent analysis database.

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

