



Montana’s bioscience industry is modest in size but has grown in recent years. State bioscience firms have increased their employment base by 4.1 percent since 2014 to reach 2,782 industry jobs in 2016 in 378 state establishments. Montana’s largest industry subsector is bioscience-related distribution with more than 1,100 jobs. Inventors in Montana are associated with 126 patents awarded since 2014 in bioscience-related technology classes, with the innovation focus areas primarily in medical and surgical devices, drugs and pharmaceuticals, and biochemistry.

## Bioscience Performance Metrics

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

Metric	Montana	United States	Quintile
<b>Bioscience Industry, 2016</b>			
Bioscience Industry Employment	2,782	1,743,639	V
Bioscience Industry Location Quotient	0.52	n/a	V
Bioscience Industry Establishments	378	85,702	V
<b>Academic Bioscience R&amp;D Expenditures, FY 2016</b>			
Bioscience R&D (\$ thousands)	\$97,867	\$41,972,205	V
Bioscience Share of Total R&D	53%	62%	IV
Bioscience R&D Per Capita	\$94	\$130	III
<b>NIH Funding, FY 2017</b>			
Funding (\$ thousands)	\$35,991	\$26,150,485	V
Funding Per Capita	\$34	\$80	IV
<b>Bioscience Venture Capital Investments, 2014-17 (\$ millions)</b>	\$57.03	\$66,168.62	IV
<b>Bioscience and Related Patents, 2014-17</b>	126	102,862	V

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.

Industry Subsector	Montana		United States	
	2016	2014-2016 Change	2016	2014-2016 Change
<b>Agricultural Feedstock and Industrial Biosciences</b>				
Establishments	16	14.3%	1,709	-3.2%
Employment	145	15.0%	68,027	-1.2%
Location Quotient	0.70		n/a	
Direct-Effect Employment Multiplier	4.53			
Total Employment Impact	659			
Average Annual Wage	\$52,389	16.6%	\$80,961	2.7%
<b>Bioscience-Related Distribution</b>				
Establishments	213	-8.1%	39,149	3.8%
Employment	1,164	-2.5%	469,640	3.7%
Location Quotient	0.81		n/a	
Direct-Effect Employment Multiplier	2.05			
Total Employment Impact	2,382			
Average Annual Wage	\$69,221	8.7%	\$93,677	2.7%
<b>Drugs and Pharmaceuticals</b>				
Establishments	12	-25.0%	3,754	13.7%
Employment	408	8.2%	299,113	2.0%
Location Quotient	0.44		n/a	
Direct-Effect Employment Multiplier	2.59			
Total Employment Impact	1,055			
Average Annual Wage	\$47,279	16.1%	\$113,815	-3.2%
<b>Medical Devices and Equipment</b>				
Establishments	31	3.3%	8,083	5.9%
Employment	430	13.1%	359,293	2.9%
Location Quotient	0.39		n/a	
Direct-Effect Employment Multiplier	2.27			
Total Employment Impact	975			
Average Annual Wage	\$41,298	3.5%	\$84,746	6.5%
<b>Research, Testing and Medical Laboratories</b>				
Establishments	106	1.9%	33,007	13.1%
Employment	635	6.6%	547,566	8.2%
Location Quotient	0.38		n/a	
Direct-Effect Employment Multiplier	2.35			
Total Employment Impact	1,490			
Average Annual Wage	\$74,229	7.1%	\$106,942	5.5%
<b>Total Bioscience Industry</b>				
Establishments	378	-4.5%	85,702	7.7%
Employment	2,782	4.1%	1,743,639	4.4%
Location Quotient	0.52		n/a	
Direct-Effect Employment Multiplier	2.36			
Total Employment Impact	6,561			
Average Annual Wage	\$61,952	7.9%	\$98,961	3.1%
<b>Total Private Sector</b>				
Establishments	43,740	4.6%	9,243,034	3.4%
Employment	370,794	3.6%	120,884,570	4.2%
Average Annual Wage	\$39,513	4.4%	\$53,354	4.3%

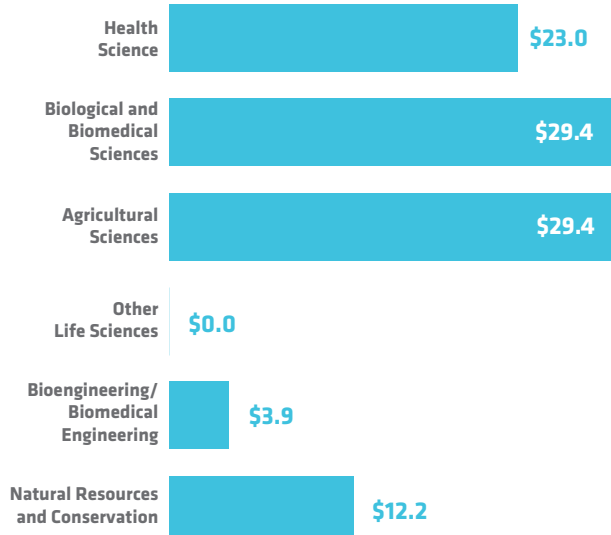
Note: U.S. employment metrics include Puerto Rico.

## Bioscience Research in Montana

### Bioscience Academic R&D Expenditures

\$ Millions

FY 2016



### NIH Awards

\$ Millions

FY 2014-2017

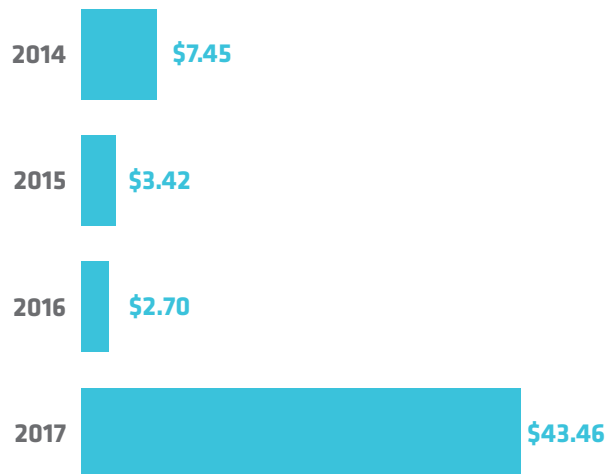


## Bioscience Venture Capital in Montana

### Bioscience-Related Venture Capital Investments

\$ Millions

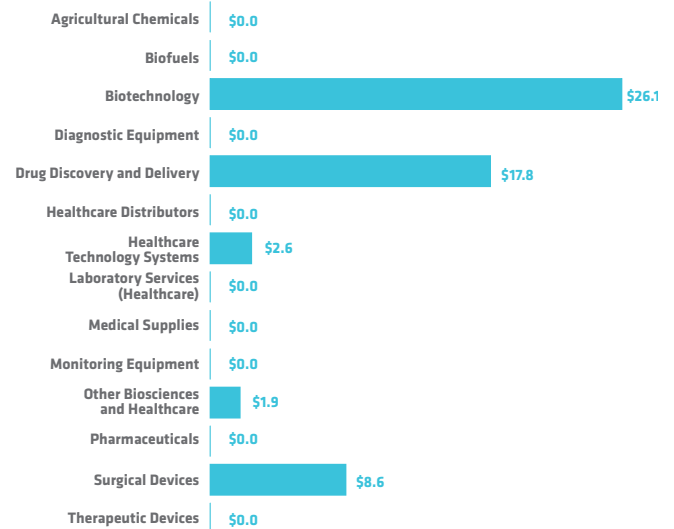
2014-2017



### Bioscience-Related Venture Capital Investments by Segment

\$ Millions

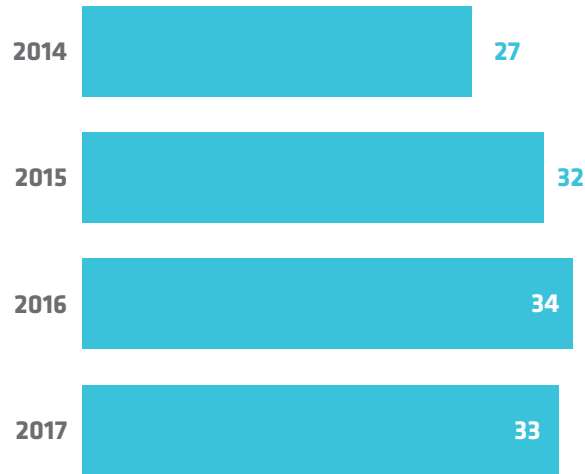
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## Bioscience Patents in Montana

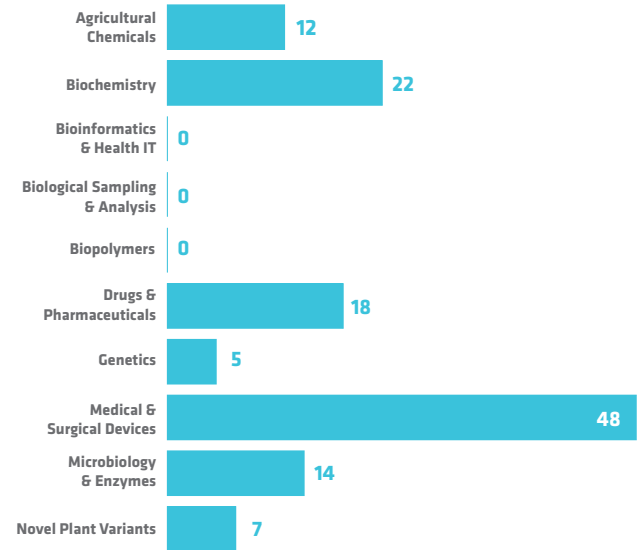
Bioscience-Related U.S. Patents

2014-2017



Bioscience-Related U.S. Patents by Segment

2014-2017



### Source Notes

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

**Employment Multipliers:** IMPLAN state-level Input/Output models.

**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.