



Kansas' bioscience industry is growing, and its firms employed nearly 15,000 in 2016 in 884 individual business establishments across the state. Since 2014, the state industry has increased its employment base by 6 percent with four of its five major industry subsectors gaining jobs during the period. Kansas has two specialized industry subsectors based on their employment concentration—agricultural feedstock and industrial biosciences and research, testing and medical labs. In recent years, Kansas institutions have seen an increase in their receipt of NIH funding awards which have grown from \$85.7 million in 2015 to \$100.6 million in 2017.

## Bioscience Performance Metrics

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

Metric	Kansas	United States	Quintile
<b>Bioscience Industry, 2016</b>			
Bioscience Industry Employment	14,756	1,743,639	III
Bioscience Industry Location Quotient	0.91	n/a	III
Bioscience Industry Establishments	884	85,702	IV
<b>Academic Bioscience R&amp;D Expenditures, FY 2016</b>			
Bioscience R&D (\$ thousands)	\$309,656	\$41,972,205	III
Bioscience Share of Total R&D	65%	62%	III
Bioscience R&D Per Capita	\$106	\$130	III
<b>NIH Funding, FY 2017</b>			
Funding (\$ thousands)	\$100,626	\$26,150,485	IV
Funding Per Capita	\$35	\$80	IV
<b>Bioscience Venture Capital Investments, 2014-17 (\$ millions)</b>			
	\$60.88	\$66,168.62	III
<b>Bioscience and Related Patents, 2014-17</b>			
	745	102,862	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.

Industry Subsector	Kansas		United States	
	2016	2014-2016 Change	2016	2014-2016 Change
<b>Agricultural Feedstock and Industrial Biosciences</b>				
Establishments	31	-3.1%	1,709	-3.2%
Employment	1,044	-0.5%	68,027	-1.2%
Location Quotient	1.64		n/a	
Direct-Effect Employment Multiplier	6.73			
Total Employment Impact	7,032			
Average Annual Wage	\$68,894	13.7%	\$80,961	2.7%
<b>Bioscience-Related Distribution</b>				
Establishments	420	1.3%	39,149	3.8%
Employment	3,706	0.1%	469,640	3.7%
Location Quotient	0.84		n/a	
Direct-Effect Employment Multiplier	2.11			
Total Employment Impact	7,838			
Average Annual Wage	\$80,106	5.5%	\$93,677	2.7%
<b>Drugs and Pharmaceuticals</b>				
Establishments	30	20.0%	3,754	13.7%
Employment	2,775	19.8%	299,113	2.0%
Location Quotient	0.99		n/a	
Direct-Effect Employment Multiplier	4.65			
Total Employment Impact	12,905			
Average Annual Wage	\$66,577	8.8%	\$113,815	-3.2%
<b>Medical Devices and Equipment</b>				
Establishments	53	26.2%	8,083	5.9%
Employment	847	0.4%	359,293	2.9%
Location Quotient	0.25		n/a	
Direct-Effect Employment Multiplier	2.45			
Total Employment Impact	2,076			
Average Annual Wage	\$49,429	8.7%	\$84,746	6.5%
<b>Research, Testing and Medical Laboratories</b>				
Establishments	350	23.5%	33,007	13.1%
Employment	6,384	6.3%	547,566	8.2%
Location Quotient	1.25		n/a	
Direct-Effect Employment Multiplier	2.00			
Total Employment Impact	12,737			
Average Annual Wage	\$64,044	4.2%	\$106,942	5.5%
<b>Total Bioscience Industry</b>				
Establishments	884	10.9%	85,702	7.7%
Employment	14,756	6.0%	1,743,639	4.4%
Location Quotient	0.91		n/a	
Direct-Effect Employment Multiplier	2.89			
Total Employment Impact	42,587			
Average Annual Wage	\$68,059	6.0%	\$98,961	3.1%
<b>Total Private Sector</b>				
Establishments	85,256	5.9%	9,243,034	3.4%
Employment	1,129,292	1.4%	120,884,570	4.2%
Average Annual Wage	\$44,768	2.8%	\$53,354	4.3%

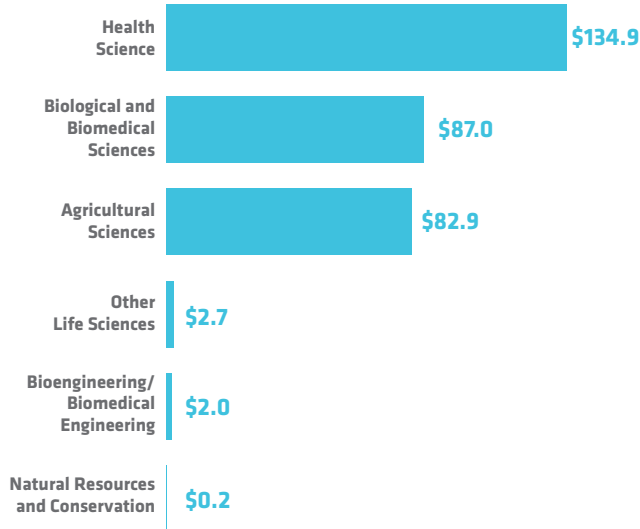
Note: U.S. employment metrics include Puerto Rico.

## Bioscience Research in Kansas

### Bioscience Academic R&D Expenditures

\$ Millions

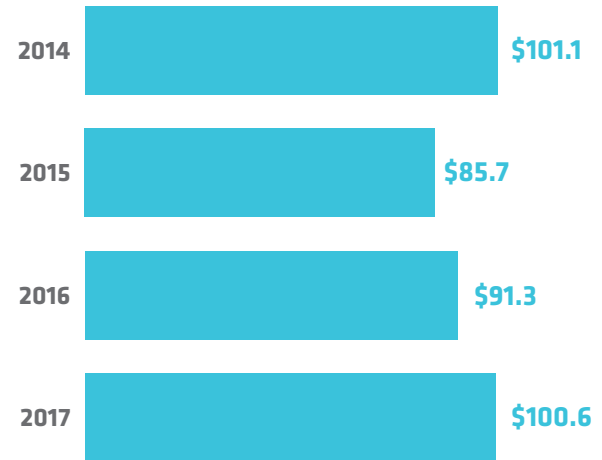
FY 2016



### NIH Awards

\$ Millions

FY 2014-2017

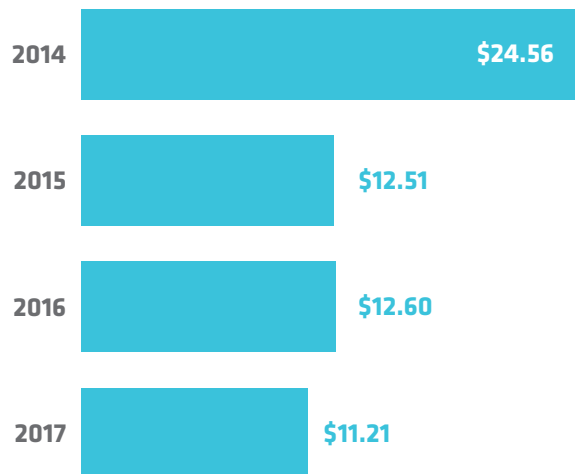


## Bioscience Venture Capital in Kansas

### Bioscience-Related Venture Capital Investments

\$ Millions

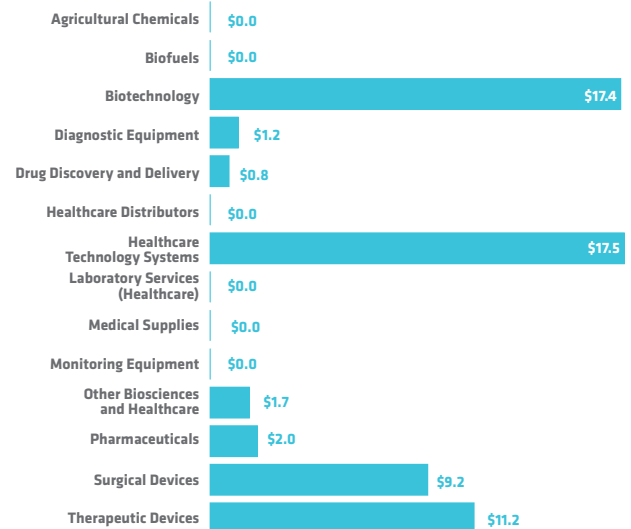
2014-2017



### Bioscience-Related Venture Capital Investments by Segment

\$ Millions

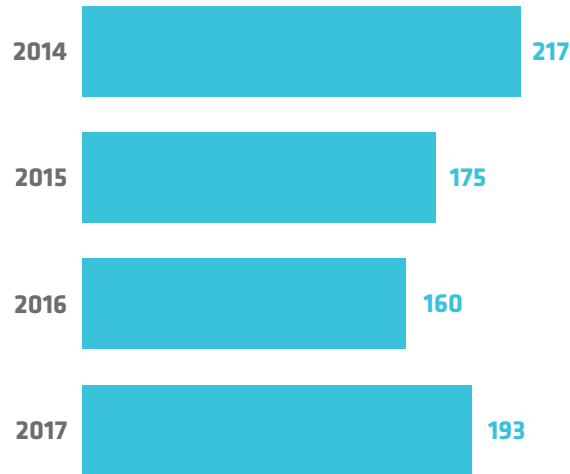
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## Bioscience Patents in Kansas

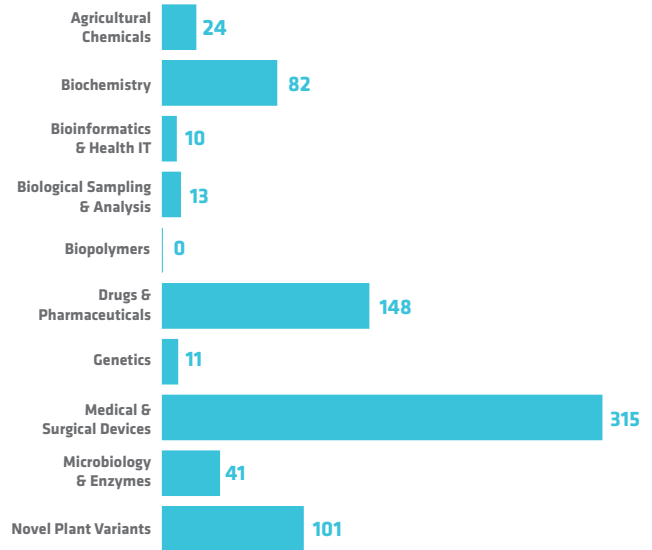
Bioscience-Related U.S. Patents

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.