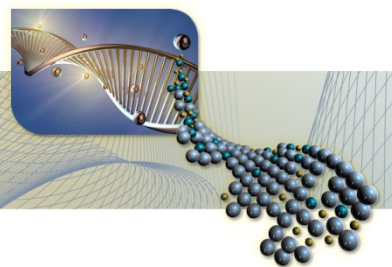


# NEW YORK



New York has 5 percent or more of national employment in three bioscience subsectors—drugs and pharmaceuticals (also concentrated with a location quotient of 1.07), research, testing and medical laboratories, and medical devices and equipment. Academic bioscience research and development expenditures totaled \$2.68 billion in 2008, with the vast majority in medical sciences and biological sciences. Academic R&D in the biosciences and funding from the National Institutes of Health to New York institutions are well concentrated with per capita totals that far exceed the national averages. The State’s biomedical institutions play a key role in clinical trials, participating in more than 1,000 active trials in 2009. During the last six years, \$1.8 billion in venture capital was invested in New York bioscience companies, led by medical therapeutics. Drugs and pharmaceuticals were the largest category among 4,975 bioscience patents issued during the same six-year period, followed by biochemistry and surgical and medical instruments.

## ●●● Bioscience Performance Metrics

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

Metrics	New York	United States	Rank*
<b>Bioscience Industry, 2008</b>			
Total Bioscience Industry Employment, 2008	76,195	1,420,324	I
Bioscience Industry Location Quotient, 2008	0.85	n/a	III
Biosciences Industry Establishments, 2008	2,639	47,593	I
<b>Academic R&amp;D Expenditures, FY 2008</b>			
Bioscience R&D (\$ thousands)	\$2,677,763	\$31,818,810	2
Bioscience Share of Total R&D	66.2%	61.3%	17
Bioscience R&D Per Capita	\$137.55	\$104.54	8
Change in Bioscience R&D, FY 2004–08	16.9%	22.3%	32
<b>NIH Funding, FY 2009</b>			
Total, Including ARRA Funds (\$ thousands)	\$2,318,843	\$25,837,590	3
Per Capita Funding	\$118.66	\$84.16	9
Change in Baseline Funding, FY 2004–09**	-1.1%	-4.7%	25
Change in Total Funding, FY 2004–09	18.2%	14.6%	26
<b>Clinical Trials, Initiated 2009</b>	1,008	5,299	3
<b>Higher Education Degrees in Bioscience Fields, AY 2008</b>	9,630	161,811	4
<b>Employment in Bioscience-related Occupations, 2008</b>	38,910	717,510	4
<b>Bioscience Venture Capital Investments, 2004–09 (\$ millions)</b>	\$1,844.7	\$60,099	7
<b>Bioscience and Related Patents, 2004–09</b>	4,975	75,593	5

\*State ranking figures for bioscience industry employment metrics are calculated as quintiles (I=Top Quintile; V=Bottom Quintile). All other metrics are ranked 1-52.

\*\*Baseline Funding does not include American Recovery and Reinvestment Act (ARRA) funds for 2009.

For source notes, see end of State Profile.

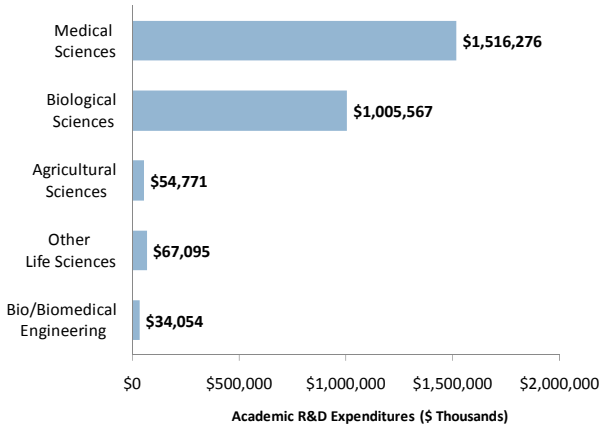
## ●●● Bioscience Industry Base, 2008

INDUSTRY SUBSECTOR	New York		United States	
	2008	2001–08 Change	2008	2001–08 Change
<b>AGRICULTURAL FEEDSTOCK &amp; CHEMICALS</b>				
Establishments	67	11.7%	2,440	16.0%
Employment	2,124	12.6%	114,793	1.9%
Location Quotient	0.29		n/a	
Direct-Effect Employment Multiplier	3.53		11.33	
Total Employment Impact	7,498		1,284,650	
Average Annual Wage	\$67,884		\$72,279	
<b>DRUGS &amp; PHARMACEUTICALS</b>				
Establishments	173	12.3%	2,771	6.4%
Employment	21,067	2.1%	311,882	2.3%
Location Quotient	1.07		n/a	
Direct-Effect Employment Multiplier	4.38		9.92	
Total Employment Impact	92,267		2,873,278	
Average Annual Wage	\$72,721		\$93,378	
<b>MEDICAL DEVICES &amp; EQUIPMENT</b>				
Establishments	915	6.6%	15,227	0.4%
Employment	21,827	1.3%	435,509	2.0%
Location Quotient	0.80		n/a	
Direct-Effect Employment Multiplier	2.53		4.87	
Total Employment Impact	55,180		2,029,581	
Average Annual Wage	\$63,927		\$63,606	
<b>RESEARCH, TESTING, &amp; MEDICAL LABORATORIES</b>				
Establishments	1,484	34.0%	27,154	57.7%
Employment	31,177	12.7%	558,140	46.1%
Location Quotient	0.89		n/a	
Direct-Effect Employment Multiplier	1.89		3.30	
Total Employment Impact	58,836		1,853,127	
Average Annual Wage	\$69,532		\$80,785	
<b>TOTAL BIOSCIENCES INDUSTRY</b>				
Establishments	2,639	21.1%	47,593	28.3%
Employment	76,195	6.2%	1,420,324	15.8%
Location Quotient	0.85		n/a	
Direct-Effect Employment Multiplier	2.81		5.82	
Total Employment Impact	213,781		8,040,636	
Average Annual Wage	\$68,762		\$77,595	
<b>TOTAL PRIVATE SECTOR</b>				
Establishments	570,912	7.7%	8,860,956	13.8%
Employment	7,162,962	1.9%	113,917,377	3.5%
Average Annual Wage	\$62,085		\$45,229	

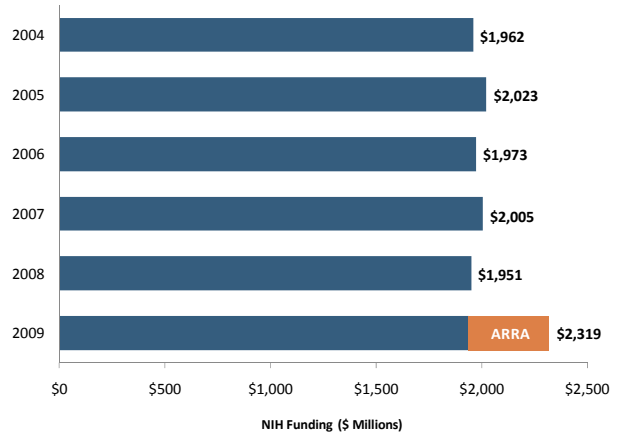
Note: U.S. employment metrics include Puerto Rico. Estimates of total employment impacts do not include Puerto Rico.

## Bioscience Performance Metrics

**Bioscience Academic R&D Expenditures in New York, FY 2008**

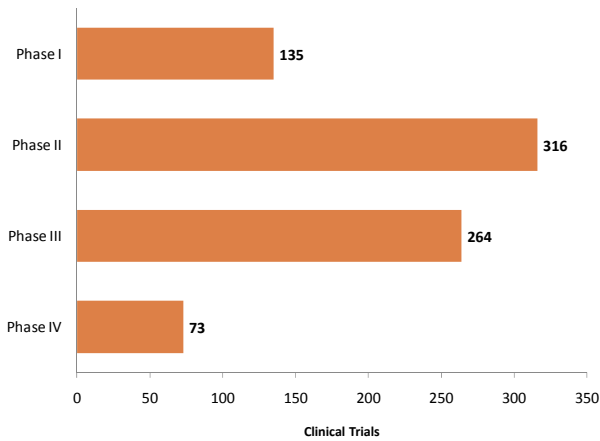


**NIH Awards in New York, 2004–2009**

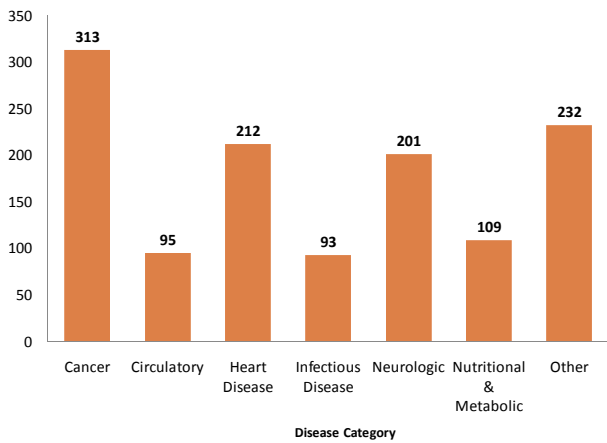


## Recent Clinical Trial Activities

**Clinical Trials by Phase in New York, 2009**

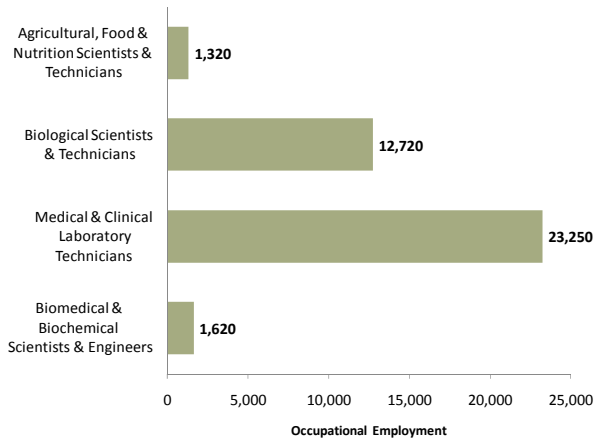


**Clinical Trials by Major Disease Category in New York, 2009**



## Bioscience Talent Base

**Bioscience-related Occupational Employment in New York, 2008**

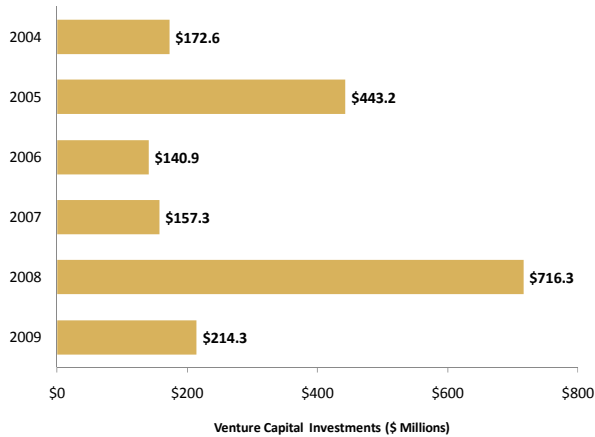


**Bioscience-related Degrees in New York, AY 2008**

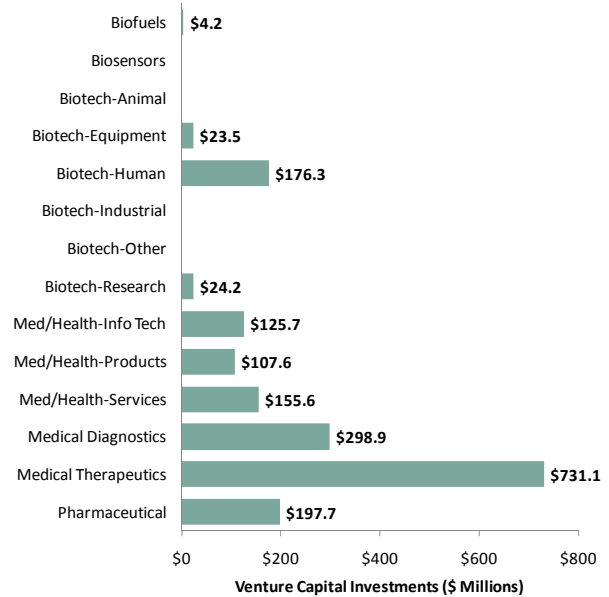


## Bioscience Venture Capital

**Bioscience-related Venture Capital Investments in New York, 2004–2009**

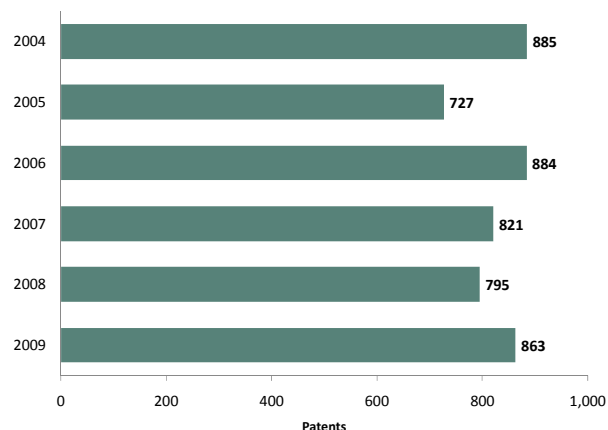


**Bioscience-related Venture Capital Investments in New York by Segment, 2004–2009**

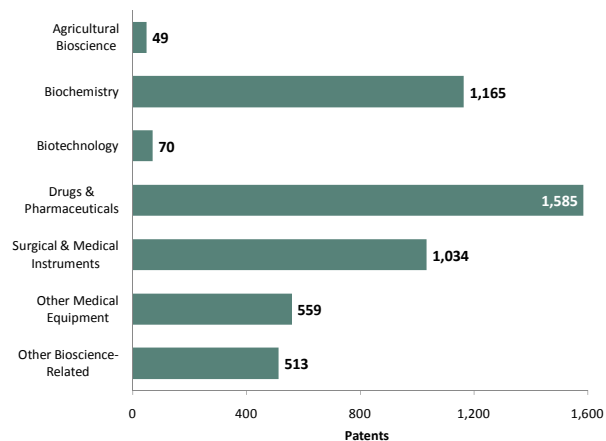


## ●●● Bioscience Patents

**Bioscience-related Patents in New York, 2004–2009**



**Bioscience-related Patents by Classification Group in New York, 2004–2009**



### State Bioscience Contact

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[www.nyba.org](http://www.nyba.org)

### 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 2008.

**Employment Multipliers:** U.S. Bureau of Economic Analysis RIMS II Employment Multipliers, 2006 (most currently available).

**Academic R&D Expenditures:** National Science Foundation (NSF) Survey of Research and Development Expenditures at Universities and Colleges, 2004 and 2008.

**NIH Funding:** National Institutes of Health, Office of Extramural Research, Award Trends, Dollars Awarded by State, 2004 and 2009.

**Clinical Trials:** National Institutes of Health, [Clinicaltrials.gov](http://Clinicaltrials.gov), trials that were initiated in 2009.

**Higher Education Degrees:** National Center for Educational Statistics, Integrated Postsecondary Education Data System (IPEDS), 2008.

**Occupational Employment:** U.S. Bureau of Labor Statistics, Occupational Employment Statistics (OES) survey data, 2008.

**Venture Capital:** Thomson Reuters' VentureXpert Database, 2004–2009, as of January 15, 2010.

**Patents:** U.S. Patent & Trademark Office data as available from the Thomson Reuters' Delphion Patent Analysis Database, 2004–2009, as of January 15, 2010.

For a more detailed discussion of the data and methodology used, please see the Appendix to the full national report. ©2010