

## WISCONSIN

Wisconsin has an employment specialization in medical devices and equipment (location quotient of 1.38). The State's agricultural feedstock and chemicals subsector was highly concentrated (1.17) and growing. Academic bioscience research expenditures totaled \$675 million in 2006, with more than half within the medical sciences (\$393 million). Venture capital invested in the biosciences during the past 6 years totaled \$291 million, well distributed across medical/health services, human biotechnology, medical diagnostics, and pharmaceuticals. The 2,399 bioscience patents over the same period were also well diversified, led by surgical and medical instruments, drugs and pharmaceuticals, and biochemistry.

### Major Industry Developments and Recent Successes

- **TomoTherapy** conducted an initial public offering in 2007, and has grown from 50 employees to nearly 700 in just over 3 years.
- **NimbleGen** was acquired by Roche Pharmaceuticals in 2007 for \$272.5 million.

### Recent State Initiatives

University of Wisconsin (UW) at Madison prepared to break ground in early 2008 on a new complex at the heart of campus that will be shared by the graduate school's interdisciplinary **Wisconsin Institutes for Discovery** and by the **Morgridge Institute for Research**, a private nonprofit that anticipates extensive industrial partnerships. The project is cofunded by \$50 million each from the Morgridge family, the State, and the Wisconsin Alumni Research Foundation.

UW Madison was also selected in 2007 as lead institution for the **Great Lakes Bioenergy Research Center**, one of three such centers selected nationally by the U.S. Department of Energy. The Center is scheduled to receive funding of \$125 million over 5 years.

The campus Office of Corporate Relations added a **New Business Startup Initiative** and other services for entrepreneurs as part of a previously announced \$5 million grant to the University from the Kauffman Foundation. The affiliated **University Research Park** in Madison announced plans for additional commercial wet-lab "accelerator" space and for a second campus that will double available acreage for commercial development.

### Pending Proposals

In 2008, Governor Jim Doyle proposed two expansions to his 2005 **Grow Wisconsin Agenda**. Under the title **Innovate Wisconsin**, he proposed a new R&D tax credit and exemption of R&D equipment from State sales and personal-property tax. Under the title **Accelerate Wisconsin**, he proposed expansions to existing angel-investor and venture-capital tax credits, an exclusion from taxation of capital gains reinvested in qualifying in-state businesses, and a direct grant and loan program for start-up companies. He also proposed a **Wisconsin Energy Independence Fund**.

For additional information on Wisconsin's bioscience policies and programs, please see <http://www.wisconsinbiotechnologycouncil.com> and <http://www.wisbiomed.org>.

## Bioscience Industry Base, 2006

Industry Subsector	Wisconsin		United States	
	2006	2001-06 Change	2006	2001-06 Change
<b>Agricultural Feedstock &amp; Chemicals</b>				
Establishments	76	18.2%	2,183	3.8%
Employment	2,596	24.8%	105,846	-6.1%
Location Quotient	1.17		n.a.	
Direct-Effect Employment Multiplier	5.17		11.22	
Total Employment Impact	13,419		1,214,709	
Average Annual Wage	\$53,715		\$67,870	
<b>Drugs &amp; Pharmaceuticals</b>				
Establishments	69	23.2%	2,654	1.9%
Employment	2,889	11.0%	317,149	4.0%
Location Quotient	0.43		n.a.	
Direct-Effect Employment Multiplier	4.60		9.92	
Total Employment Impact	13,291		2,880,242	
Average Annual Wage	\$75,012		\$86,892	
<b>Medical Devices &amp; Equipment</b>				
Establishments	314	8.3%	15,215	0.3%
Employment	12,324	-3.7%	422,993	-0.9%
Location Quotient	1.38		n.a.	
Direct-Effect Employment Multiplier	3.85		4.85	
Total Employment Impact	47,419		1,980,128	
Average Annual Wage	\$63,402		\$59,441	
<b>Research, Testing, &amp; Medical Laboratories</b>				
Establishments	225	28.9%	22,857	32.7%
Employment	4,605	20.0%	449,991	17.8%
Location Quotient	0.49		n.a.	
Direct-Effect Employment Multiplier	2.37		3.25	
Total Employment Impact	10,890		1,440,500	
Average Annual Wage	\$57,339		\$71,284	
<b>Total Private Sector</b>				
Establishments	153,442	8.7%	8,575,730	10.2%
Employment	2,388,540	2.2%	113,463,842	3.1%
Average Annual Wage	\$36,462		\$42,272	

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

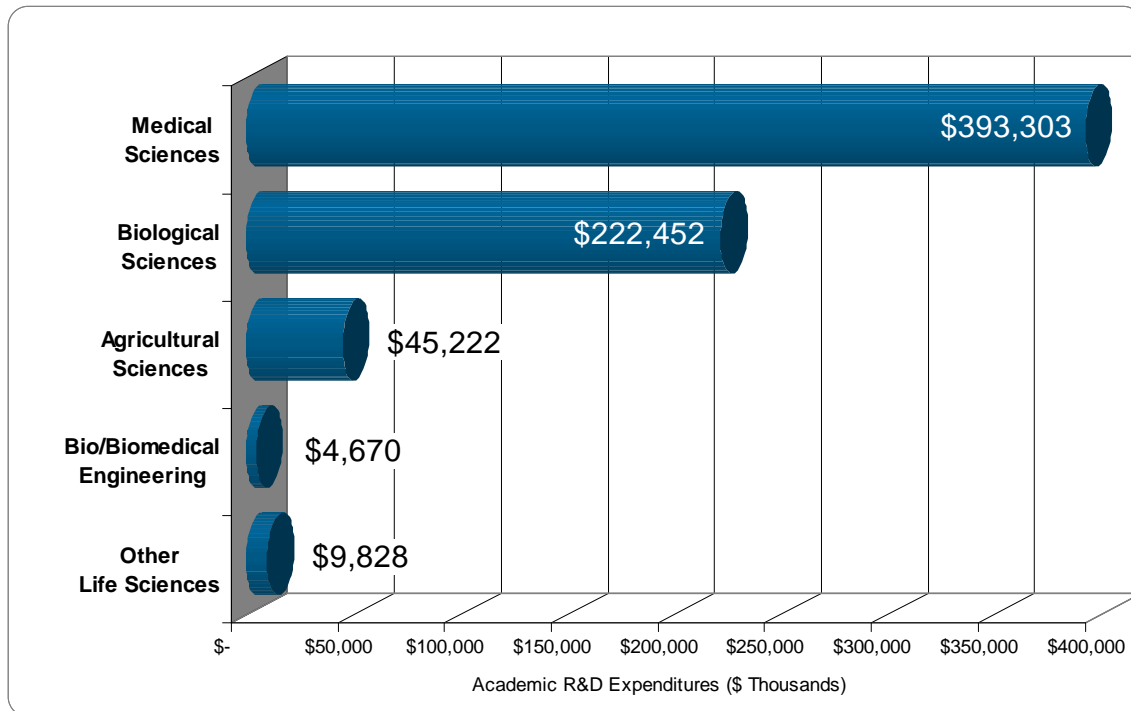
## Additional Bioscience Performance Metrics

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

	Wisconsin	United States	Rank
Academic R&D Expenditures, FY 2006			
Total (\$ thousands)	\$1,039,530	\$47,760,402	13
Bioscience R&D (\$ thousands)	\$675,475	\$29,307,628	15
Bioscience Share of Total R&D	65.0%	61.4%	
Bioscience R&D Per Capita	\$121.21	\$98.10	
Change in Bioscience R&D FY 2002–2006	31.1%	36.9%	
NIH Funding, FY 2007			
Total (\$ thousands)	\$370,395	\$21,066,389	16
Per Capita Funding	\$66.12	\$69.84	
Change in Funding, FY 2002–2007	9.2%	11.2%	
Higher Education Degrees in Bioscience Fields, AY 2006	3,880	143,433	11
Employment in Bioscience-related Occupations, 2006	11,320	588,520	19
Bioscience Venture Capital Investments, 2002-2007 (\$ millions)	\$291.4	\$51,260.9	19
Bioscience and Related Patents, 2002-2007	2,399	121,817	18

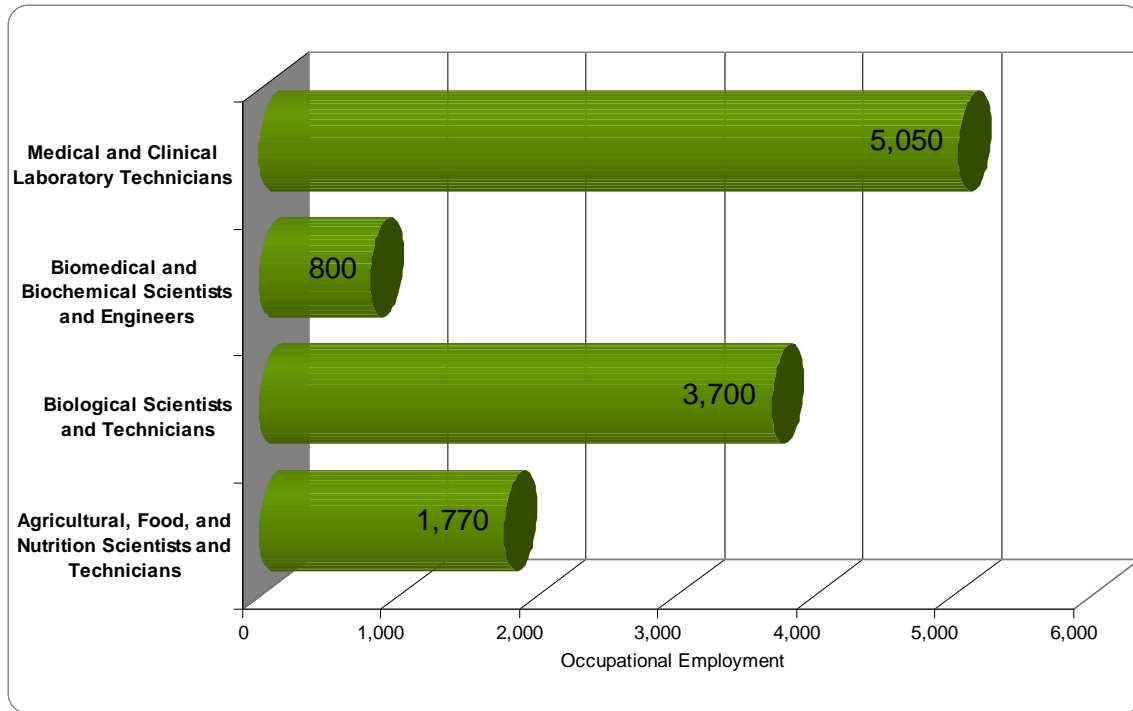
## Bioscience R&D Base

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

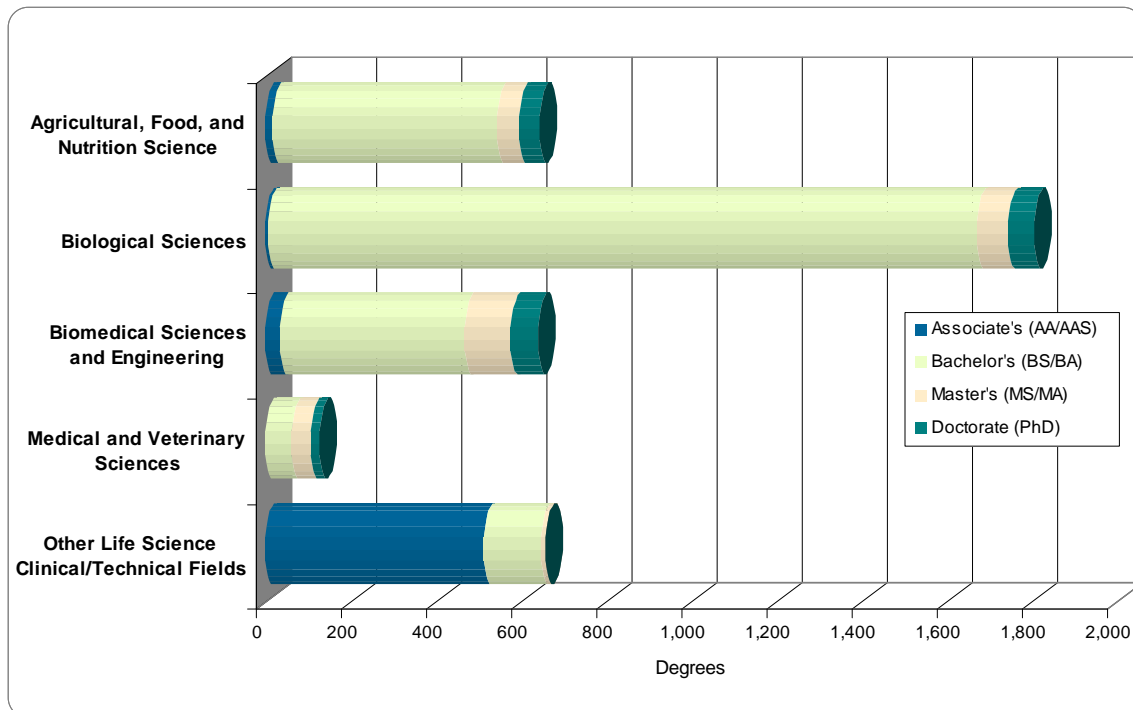


## Bioscience Talent Base

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

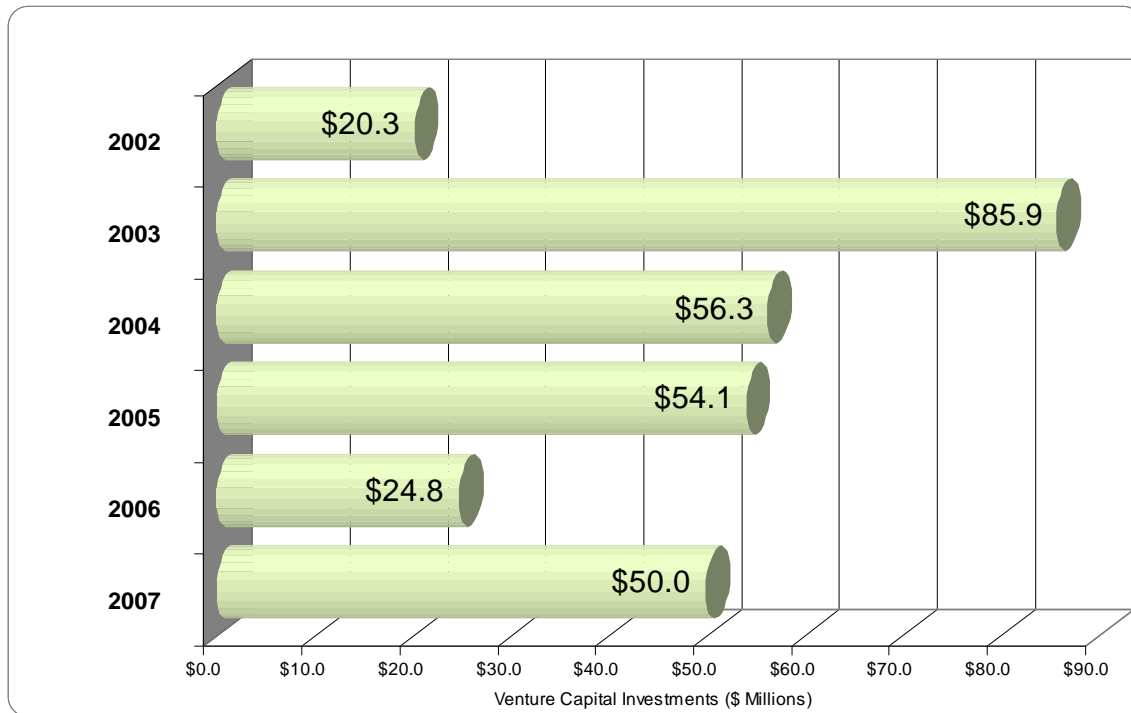


### Bioscience-related Degrees in Wisconsin, AY 2006

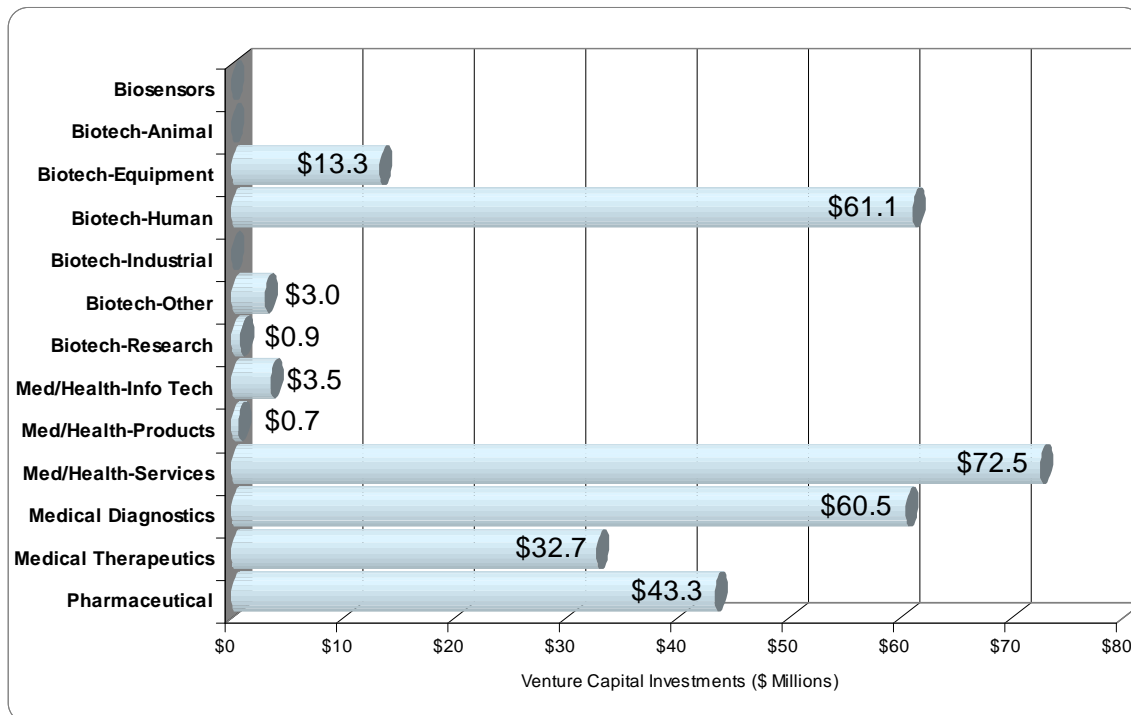


## Bioscience Venture Capital

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

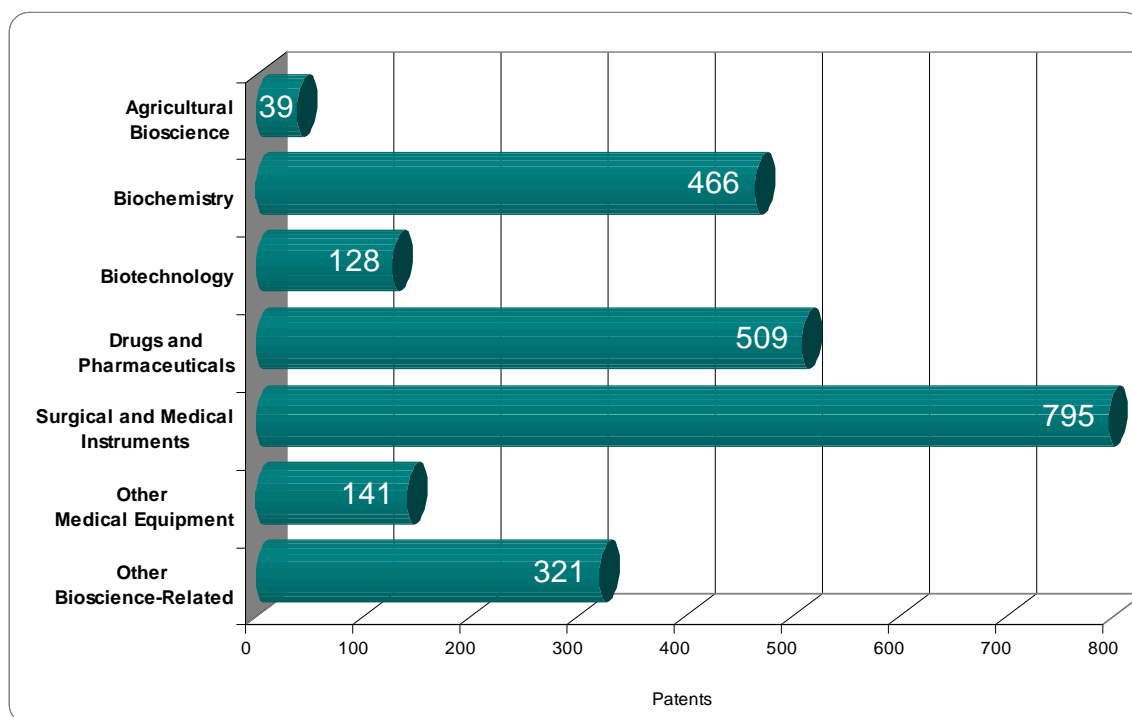


### Bioscience-related Venture Capital Investments in Wisconsin by Segment, 2002–2007



## Bioscience Patents

### Bioscience-related Patents by Classification Group in Wisconsin, 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 VentureXpert 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.