



## MINNESOTA POLICIES AND PROGRAMS

### HIGHLIGHTS

- *Minnesota’s biopharmaceutical sector supports more than 49,000 workers and contributed \$8.2 billion to the state’s economy in 2006, including direct, indirect and induced impacts*
- *The state is seeking to expand its biopharmaceutical sector*
- *Minnesota has created Bioscience Zones that offer incentives to attract firms to locate in proximity to the state’s research institutions*

### Minnesota’s Biopharmaceutical Industry

Minnesota has a mid-sized and growing biopharmaceutical sector, directly employing 7,809 in 2006.<sup>1</sup> The reach of the industry extends widely and supports \$8.2 billion in total state economic output, including its direct, indirect and induced impacts. Minnesota biopharmaceutical firms have added jobs with a 4.1 percent compound annual growth rate during the decade prior to 2006. The state is home to an active biomedical research base, with 2,205 clinical trials underway in 2008.

### Minnesota’s Approach to Growing the Biopharmaceutical Industry

Minnesota has a strong and diverse base of medical device companies dating to the invention of the first wearable cardiac pacemaker at the University of Minnesota Medical Center in 1957. The state has long promoted the U.S. highway 52 corridor, connecting the Twin Cities university

complex with the Mayo Clinic in Rochester, as “Medical Alley.” However, until recently there has been limited state government involvement in developing the strengths of both institutions and leveraging them to produce a broader life sciences industry sector.

In 2003, a Governor’s Biosciences Council identified barriers to further development, including lack of ongoing funding to build the research base and limited access to early-stage venture funding. In response, the state created a Bioscience Innovation Zone program that combined state investments in research and development (R&D) infrastructure with authorized tax exemptions for companies locating near these two research anchors. The state also supported a first-ever research partnership between the University of Minnesota and the Mayo Clinic and has created an Office of Science and Technology, which operates a program that assists companies seeking Small Business Innovation Research/Small Business Technology Transfer or other federal awards. Minnesota’s statewide bioscience trade association has changed its name from “Medical Alley” to “Life Sciences Alley” and has spun off a nonprofit BioBusiness Alliance of Minnesota. The change in name was made, in part, to better reflect the diversity of the organization’s membership, which includes organizations involved in animal health, food production, environmental sciences and pharmaceuticals, in addition to medical devices.

“Minnesota is blessed with an exceptionally strong life science industry. The state’s economy is about 24 percent more dependent on the life sciences than the national average. This success is anchored in the state’s agricultural and medical technology industries, but is made possible by the strength of its high-technology industries, defined broadly.

In partnership with government and academia, these segments of the state’s industrial sector have historically worked together to create an economic environment that has given Minnesotans a quality of life that is among the best in the world.”

Destination 2025

[http://biobusinessalliance.org/file\\_download/67](http://biobusinessalliance.org/file_download/67)

Biopharmaceutical Sector Performance Measures	MN	US
Direct Employment, 2006	7,809	686,442
Direct Employment Growth (CAGR), 1996-2006	4.1%	3.1%
Average Annual Wages (Direct Employment), 2006	\$74,134	\$88,929
Total Supported Employment (incl. Direct), 2006	49,105	3,233,920
Total Economic Output, 2006 (\$ billions)	\$8.2	\$294.6
Direct Output per Direct Employee, 2006	\$299,836	\$128,925
Active Clinical Trials, 2008	2,205	21,795

Source: Archstone Consulting, *The Biopharmaceutical Sector’s Impact on the U.S. Economy*, prepared for PhRMA, 2009.

CAGR = Compound Annual Growth Rate

## Major State Initiatives to Attract and Grow the Biopharmaceutical Industry

### Bioscience Zones

Specifically mapped zones have been designated in Rochester, St. Paul and Minneapolis. Zone administrators are authorized by the Minnesota Department of Employment and Economic Development to negotiate and grant a range of tax exemptions to companies locating in these boundaries. The zones also receive state support for infrastructure projects, such as the University Enterprises Laboratory wet-lab incubator in St. Paul.

### Minnesota Biomedical Research Program

Together with the Bioscience Zones program, the state committed \$220 million in capital funding to a \$300 million plan by the University of Minnesota to construct four new buildings totaling 400,000 square feet.<sup>2</sup> The program is intended to generate an additional \$100 million in sponsored research funding annually, supporting 100 researchers and 500 support staff. The specific focus of this new complex will include cancer, cardiovascular health, and infectious diseases.

### Minnesota Partnership for Biotechnology and Medical Genomics

One of the outcomes of the 2003 Governor's Council was state seed funding for the Minnesota Partnership for Biotechnology and Medical Genomics, which supports research collaborations between the University of Minnesota and the Mayo Clinic. Paralleling the state commitment to the Minnesota Biomedical Research Program in the Twin Cities, the state also made a \$21.7 million capital commitment to expansion of the Clinic's facilities for medical genomics.<sup>3</sup> A request for a \$16 million operating grant over the next biennium is pending in the legislature.

In March 2009, the Minnesota Partnership for Biotechnology and Medical Genomics awarded almost \$5.4 million in state-funded research support to six research teams. The funding will support research on cancer, neurological diseases, heart disease, gastrointestinal conditions and nanotechnology with potential applications in multiple pathologies.

According to Eric Wieben, Ph.D., Partnership program director at Mayo Clinic, the six projects selected for funding have a "strong likelihood of succeeding and advancing to the bioscience marketplace."

www.biocrossroads.com Minnesota Partnership for Biotechnology and Medical Genomics, Press Release, 3/06/09  
<http://www.minnesotapartnership.info/pressreleases/2009-0306/index.cfm>

### BioBusiness Alliance of Minnesota

The BioBusiness Alliance is an industry-led nonprofit organization, created in 2005, that is dedicated to growing the biobusiness sector in Minnesota. Biobusiness includes "economic activity related to the development or commercialization of bioscience or bioscience-related technologies, products or services."<sup>4</sup> The Alliance has three major missions:

- Assessing the state of the industry
- Developing and implementing a strategy roadmap to guide development of the sector
- Creating a resource network to link academic, industry and government actors.

The Alliance has had sponsorship from both the private sector and the state for the industry assessment (released in 2006) and the Destination 2025 strategic roadmap (released in 2009).<sup>5</sup> The overall strategy includes a specific recommendation to "develop a biologic and biopharmaceutical industry in Minnesota" that matches identified research strengths in both the University of Minnesota and Mayo Clinic, and which can assist the device sector in remaining a national leader. Other recommendations of the core report include:

- Enacting an angel investment tax credit
- Providing increased flexibility in the state's R&D tax credit and creating other new financial incentives
- Establishing targeted, industry-specific investment funds.

<sup>1</sup> Archstone Consulting, The Biopharmaceutical Sector's Impact on the U.S. Economy, prepared for PhRMA, 2009. The biopharmaceutical sector is defined as including pharmaceutical and medicine manufacturing and scientific research and development services. The bioscience sector is broader, and includes medical devices and agricultural feedstocks and chemicals in addition to biopharmaceuticals. Some states use the term life sciences or biomedical sciences, which often include hospitals and health care institutions as well.

<sup>2</sup> University of Minnesota, "Bond bill finalized," 4/07/08, [http://www1.umn.edu/twincities/faculty-staff/features/2008/UR\\_180309\\_REGION1.html](http://www1.umn.edu/twincities/faculty-staff/features/2008/UR_180309_REGION1.html)

<sup>3</sup> Minnesota Partnership for Biotechnology and Medical Genomics, Fact Sheet, <http://www.minnesotapartnership.info/about/factsheet.cfm>

<sup>4</sup> <http://biobusinessalliance.org>

<sup>5</sup> Biobusiness: Minnesota's Present Position and Future Prospects, August 2006 and Destination 2025, <http://biobusinessalliance.org>. PhRMA 2009