



BIOHEALTH

IN WISCONSIN



ECONOMIC IMPACT OF
BIOHEALTH INDUSTRY



\$28.8
BILLION

In Wisconsin, we offer unparalleled advantages that are uniquely suited to biohealth.

Workforce. We deliver a critical mass of highly skilled and highly educated employees for the biohealth sector, as well as a large pool of health care employment to draw from.

Central location. From the center of the U.S., we offer quick access to markets throughout North America. Chicago and its O'Hare Airport are less than an hour from our border. And our well-developed logistics sector moves your goods to market efficiently via rail, road, air or water.

Academic excellence. We push the boundaries of theoretical and applied science—and prepare talent for the future. At more than \$1.3 billion annually, our flagship University of Wisconsin-Madison ranks #8 in the U.S. for research spending; the University of Wisconsin System awards more than 41,000 degrees annually.

Low risk of natural disaster. We offer remarkably low risk for every imaginable type of disaster, from earthquakes and wildfires to climate threats like heat waves, tornadoes and hurricanes.

Fiscal responsibility. From our fully funded state pension system—one of only two in the U.S.—to our extraordinary credit rating, we offer a politically stable, low-tax, low-regulation, business-welcoming environment.

Discover why global leaders in vital sectors—advanced manufacturing; energy, power and controls; water technology; food and beverage; and biohealth—are choosing Wisconsin as their entry point into North American markets.

1,700+

Wisconsin biohealth companies

46,000+

Biohealth industry employment



WORKFORCE BUILT FOR SUCCESS



OVER
5,000
ENGINEERING DEGREES AND
CERTIFICATES AWARDED IN 2020

ACADEMIC EXCELLENCE

In Wisconsin, our universities lead in research and technology commercialization, supporting partnerships, companies and policymakers to develop new, innovative products that fill market needs.

UW-Madison and **UW-Milwaukee** are both Tier 1 research universities; UW-Madison ranks #8 in the U.S. for research spending, with over \$1.3 billion in research expenditures in fiscal year 2020.

World-renowned health and medical education and research take place in Wisconsin at institutions such as:

The UW-Milwaukee **Institute for Drug Discovery**

The **Morgridge Institute for Research**, an independent biomedical institute exploring uncharted scientific territory to discover tomorrow's cures

The **Center for Predictive Computational Phenotyping** at UW-Madison

The **UW-Madison School of Medicine and Public Health**, the first in the nation to fully integrate medicine and public health

The **Medical College of Wisconsin**, a distinguished leader and innovator in the education and development of the next generation of physicians, scientists, pharmacists and health professionals, investing more than \$260 million in research each year—and its **Department of Biomedical Engineering** in collaboration with Marquette University

Our 16 technical colleges and 35 universities, with a combined total of 98 campus locations around the state, prepare students to make strong contributions to Wisconsin's economy—and the leaders who hire them.

WISCONSIN'S POPULATION
5.8 MILLION

COST OF LIVING IS

35% HIGHER IN CALIFORNIA

32% HIGHER IN MASSACHUSETTS

than in Wisconsin



WISCONSIN EXPORTED
\$2 BILLION
IN MEDICAL AND SCIENTIFIC
INSTRUMENTS IN 2020



NEARLY
1,700

BIOHEALTH PATENTS WERE AWARDED TO
WISCONSIN ENTITIES FROM 2015-2019

Biohealth Economy and Major Subsectors	Establishments 2018	Employment 2018
Digital health	111	11,894
Medical devices and equipment	280	11,748
Biohealth-related distribution	960	9,655
Biomedical research and testing	273	7,935
Drugs and pharmaceuticals	85	4,928
Biohealth industry total	1,709	46,160

Industry Strong. Technology Smart. Future Ready.

“By welcoming Cellular Dynamics Inc. to the Fujifilm Group and by combining the technologies and knowhow of both companies, we will seek synergies and efficiencies to be more competitive in the field of drug discovery and regenerative medicine.

- Shigetaka Komori, CEO, Fujifilm.



FEDERAL GRANTS
(primarily biohealth) **CONTRIBUTE**
\$1 BILLION+
TO WISCONSIN'S ECONOMY
EACH YEAR

280
MEDICAL DEVICE
MANUFACTURERS IN WISCONSIN

BUILT FOR INNOVATION

In the field of biohealth, a number of subsectors—including medical device manufacturing, digital health, biopharmaceuticals and diagnostics—are converging into a single interconnected, synergistic field to create the best solutions for today's health challenges. Wisconsin's strength in bioscience, manufacturing and technology make our state well positioned to take advantage of this convergence and to lead the way in producing the integrated health solutions of tomorrow.

Wisconsin is also an excellent place to start a business. We have a comprehensive network of resources that supports entrepreneurs from the birth of their business idea, all the way through bringing it to market and scaling.

Wisconsin's leading biohealth companies:



FUJIFILM

**EXACT
SCIENCES**

Epic

**Phillips
Medisize**

WISCONSIN RANKS



1ST

IN THE U.S. FOR
MEDICAL IMAGING
(irradiation apparatus)
MANUFACTURING
EMPLOYING 4,000
PEOPLE

more than California and New York
(the next leading states) combined

Wisconsin's strength in biohealth comes together with the help of **BioForward**, an industry organization that facilitates partnerships among government, academia and private industry, as well as marketing the economic impact of local biomanufacturing companies and Wisconsin's biohealth industry. Its biomanufacturing center of excellence, the **Forward BIO Initiative**, also includes:

The **Forward BIO Institute**, based at UW-Madison, which will support transformative research in the field of biomanufacturing, translate technologies into the private sector, and establish public-private partnerships to connect UW inventors and researchers with industry leaders. As part of this initiative, the institute is establishing a new master's degree at UW-Madison in biomanufacturing innovation.

Forward BIOLABS, a new, nonprofit shared laboratory facility that provides fully supported lab and office space. The 8,700-square-foot facility is located at University Research Park in Madison, with lab space for up to 20 scientists and common co-working space to allow members to collaborate.



For information on sources and attribution
visit InWisconsin.com/industrydata

Wisconsin's strength in biohealth is unique in that it spans four major subsectors:

Medical devices and diagnostics. Everything from MRI and dialysis machines to pacemakers and vacuum devices for negative pressure wound therapy—as well as diagnostic equipment, supplies and kits—is made in Wisconsin. The state's strength is reflected in its above-average share of risk capital investment.

Biotechnology and biopharmaceuticals. From the development of drugs and therapies to translational and integrated science, Wisconsin has a long history of excellence in biotechnology and biopharmaceuticals.

Digital health. Innovations at the intersection of software and health solutions are empowering patients and health care systems to provide personalized care, improve quality and reduce costs. This is Wisconsin's fastest-growing biohealth segment, and represents one of every three companies and dollars invested in biohealth in Wisconsin.

Health research institutes, with Wisconsin institutions occupying some of the top rankings in the nation.

Wisconsin is also a world leader in **animal genetics**, with companies such as ABS Global, Accelerated Genetics and Alta Genetics.

Wisconsin excels in the manufacturing of diagnostics, molecules, cells and tissues—a field known as **biomanufacturing** that is emerging as a substantial industry in the U.S. and globally. Active pharmaceutical ingredient (API) manufacturers such as Scientific Protein Labs, Alcami, MilliporeSigma and Catalent manufacture the molecules and compounds needed for discovering and testing new drugs, as well as molecules whose efficacy is well established.

Ongoing **stem cell research** at UW-Madison and its affiliated institutes has led to a concentration of companies that seek to use these cells therapeutically and commercialize those therapies.

