

IOWA'S BIOSCIENCE INDUSTRY



OUTPACING THE NATION IN BIOSCIENCE INDUSTRIES

Iowa is capitalizing on its success in agriculture and its research capabilities in plant, animal and human biosciences to build a thriving biosciences industry in the state. From startup companies to globally respected industry leaders in research and development, Iowa's bioscience enterprises are discovering the innovations that will spur future economic growth.

In the last decade, Iowa has made significant progress in building the industry, with employment growing eight percent between 2007 and 2014, outpacing growth of 1.8 percent at the national level according to a 2016 report by the Battelle Technology Partnership Practice.

A critical mass of bioscience companies and research institutions in Iowa are pushing industry growth in the state. Today, roughly 1,266 entities are working to commercialize Iowa's bioscience innovations. Though known as a global leader in agricultural biosciences, a 2017 report issued by TEconomy Partners, LLC has identified Iowa as also having competitive advantages in the medical devices, precision and digital agriculture, vaccines and immunotherapy and biobased chemical subsectors.

COMPANIES AT WORK IN IOWA

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IOWA'S WINNING BIOSCIENCE BUSINESS CLIMATE

State government, private industry and world-class research help bioscience firms compete globally and turn breakthrough research discoveries into startup businesses through use of innovative strategies. Bioscience companies particularly benefit from Iowa's abundant access to raw materials and its strong transportation infrastructure.

Additionally, companies operating in Iowa benefit from a business-friendly state government, business-minded tax incentives, and a skilled and productive workforce within a right-to-work state. With one of the lowest costs of doing business in the country (Business Facilities, 2017), Iowa remains an attractive location for both new and existing bioscience firms. The state continues to support the biosciences industry via programs administered by the Iowa Economic Development Authority.



IOWA'S UNIVERSITIES ARE LEADERS IN BIOSCIENCE RESEARCH AND DEVELOPMENT

Iowa is home to three public universities – the University of Iowa, Iowa State University and the University of Northern Iowa – that are world-renowned for their dynamic research capabilities in plant, animal and human biosciences. The universities leverage over \$1 billion in external funding, including research grants, on an annual basis.



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Exciting human and animal research advancements are being made at university research facilities across the state including:

- The University of Iowa's Carver College of Medicine is comprised of 11 buildings totaling approximately 1.4 million gross square feet (921,000 net square feet) of usable space, devoted to research, education and administrative and event activities. Researchers in the college's over 280 laboratories are served by state-of-the-art core research and research support facilities. The college's research enterprise has garnered over \$229 million in external funding and is ranked 15th among public institutions by *U.S. News & World Report*.
- The University of Iowa Pharmaceuticals (UIP) is a Food and Drug Administration-registered pharmaceutical manufacturing facility. UIP provides contract pharmaceutical services including pre-formulation studies, formulation development (including lyophilization cycle development), clinical supply, manufacturing, small scale commercial manufacturing, analytical method development and validation, routine quality control analysis, stability studies, and active pharmaceutical ingredient and excipient release testing to clients from around the world.
- Iowa State University's College of Veterinary Medicine develops vaccines to control and eradicate animal diseases, provides a state-of-the-art teaching hospital, delivers pre-eminent, comprehensive programs in swine, dairy, beef and small ruminant production animal medicine and animal welfare. The college also conducts veterinary services that aim to protect animal and human health by providing effective diagnostic testing to tens of thousands of clients each year. The college is a cornerstone of one of the world's largest concentrations of animal health professionals that includes the USDA's National Animal Disease Center, the National Veterinary Services Laboratories and the Center for Veterinary Biologics in Ames.

MORE PROOF IOWA IS THE PLACE FOR BUSINESS

- Iowa's pro-business government works to help bioscience businesses grow through a variety of programs that offer direct financial assistance, tax credit programs – including a refundable, R&D tax credit and bioscience job training funds.
- Iowa's skilled, well-educated and adaptable workforce provides higher-quality output and lower operational costs.
- In 2017, Iowa exported \$170 million in pharmaceutical products to 60 countries. Top export markets were Mexico (\$24.9 million), Canada (\$23.1 million), Japan (\$17.5 million), Spain (\$14.4 million) and Singapore (\$12.7 million). (GTIS, 2018)
- In 2014, Iowa's bioscience industry employed 24,762 across 1,266 individual business establishments. (Battelle, 2014)
- Iowa had the fourth highest location quotient for veterinarians with 55 percent more than the national average. (Bureau of Labor Statistics, 2017)
- Iowa has the sixth highest concentration of food scientists in the country, 113 percent more than the national average. (Bureau of Labor Statistics, 2017)
- Iowa has the 16th highest concentration of biological technicians in the country, with 23 percent more than the national average. (Bureau of Labor Statistics, 2017)
- Iowa ranks second in the country for the number of Science and Engineering bachelors degrees conferred per 1,000 people ages 18-24. (National Science Foundation, 2011)
- Iowa offers the first-of-its-kind in the nation, Renewable Chemicals Production Tax Credit program.

To learn more, contact the Iowa Economic Development Authority at opportunities@iowaeda.com or by calling +1.515.348.6200.

