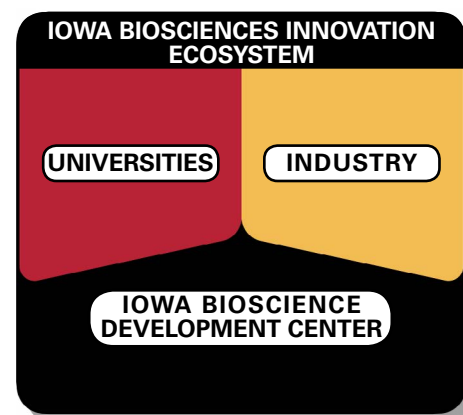


BIOSCIENCES CRUCIAL TO IOWA'S ECONOMIC GROWTH

LEGISLATIVE FUNDING REQUEST: Establish a nationally renowned innovation ecosystem in Iowa-advantaged bioscience platforms to grow and diversify Iowa's economy.

ANTICIPATED OUTCOMES:

- Accelerated translation of scientific breakthroughs, leading to commercialization, for growing and diversifying Iowa's economy
- Close collaborations between industry and universities to solve problems
- Development of a skilled workforce in biosciences



IOWA IS WELL POSITIONED FOR BIOSCIENCES ECONOMIC GROWTH:

- Iowa is currently outperforming the nation in bioscience employment growth
- The bioscience sector has been outperforming Iowa's overall private sector growth
- Iowa has 36% more bioscience employment than national levels
- There is enormous potential for further growth in Iowa, while providing high paying jobs (average salaries of \$68K for biosciences versus \$42K for all private sector jobs)

THE BIOSCIENCE PLATFORMS:

The Iowa Governor's office, the Iowa Economic Development Authority (IEDA) and the Iowa Innovation Council identified four platforms as the focus for future bioscience development efforts based on the market potential for growth, R&D competencies and competitive advantages.

PLATFORM	MARKET POTENTIAL
Biobased chemicals	US Chemical market \$250 billion, growing at the rate of GDP
Precision and digital agriculture	\$3.3 billion in 2016 to \$5.9 billion by 2021
Vaccines and immunotherapeutics	\$33 billion in 2016 to \$45 billion by 2021
Medical devices	\$483 billion in 2016 to \$634 billion by 2021

SUCCESSFUL BIOSCIENCE DEVELOPMENT REQUIRES ENHANCED PARTNERSHIPS OF UNIVERSITIES, IBDC, AND INDUSTRY:

The FY2020 Board of Regents appropriation request for the bioscience platforms will accelerate the pace at which discoveries are translated into commercial opportunities by:

- Hiring one Chief Technical Officer for each platform, who will, in partnership with IBDC staff, provide technical expertise as well as business knowledge.
- Dedicating resources to obtain funding for large-scale federal programs focused on university-industry partnerships and for intellectual property and business plan development in the platform areas.
- Creating a seed funding program focused on early-stage technologies, encouraging University-industry collaborative partnerships.
- Creating an "Iowa Innovates" program to attract young innovators to Iowa.