



Innovation Ecosystem 2023 Year-End Update

Vaccines, Diagnostics and Immunotherapeutics

With the critical support of the Iowa Legislature – and in partnership with [BioConnect Iowa](#) – Iowa State University of Science & Technology continues to forge new frontiers in innovation supporting the growth of Iowa’s biobased economy.

KEY AREAS OF EMPHASIS

- The VDI Platform continues to support expanding the innovation pipeline through internal seed grants. To date, more than 15 grants, totaling more than \$750,000 have been invested in the development of new technologies. The most recent grants funded research focused on defining protective immunity in swine for the porcine epidemic diarrhea (PED) virus and the use of advanced machine learning algorithms to monitor and predict emerging viral diseases.
- The State of Iowa Biosciences progress report conducted in 2022 recommended increasing efforts in workforce development. Collaborating with the ISU Veterinary College and industry partners, VDI engaged more than 100 faculty, staff and students in career advancement and industry competency training opportunities in 2023.
- VDI invested in third-party market research, in which more than 30 company contacts participated, to ensure the platform’s key research and technology development priorities align with those in industry.

- Iowa State University, BioConnect Iowa, and the University of Iowa, and Iowa State [launched a web site](#) that provides a single, unified point of contact to introduce, assess, and connect people, services, technology, and programs to our external partners

KEY ACCOMPLISHMENTS AND ECONOMIC IMPACTS

- In FY23, the VDI platform facilitated more than \$950,000 in external funding from a spectrum of companies ranging from smaller startups (Genevax, MAZEN) to global multi-nationals (Boehringer, MERCK, CEVA).
- The VDI platform CTO is one of several principal investigators in the NSF-awarded \$20-million [Iowa EPSCoR project](#) focused on research capacity and infrastructure for advanced biomanufacturing. This grant will have synergies with BioScience Platform goals and provide additional support and resources for workforce development, training, and expansion of manufacturing in the biological space.
- The CVVAX lab, launched in 2022, successfully hosted four

companies in 2023. Two of these – SKYBIRD and ECO Animal Health – have transitioned to company-specific space in the ISU Research Park and Des Moines, respectively. ELANCO is currently using the facility to assess new ISU technology, while also expanding its Iowa employee base.

KEY OPPORTUNITIES AND PRIORITIES FOR 2024

- Expand workforce development and training efforts through a certificate program focused on industry-relevant needs.
- Continue leveraging CYVAX for expanded manufacture support and company acceleration.
- Continue to develop the commercial environment through the formation of an external advisory board who can assess existing programs, CEO recruitment for our startups, and further refine the optimal efforts of the Bioscience platform.
- Support a global meeting on advanced technology with focus on regulation and manufacturing: NANOVAX 2024 . . . Manufacturing, Distribution, Deployment, & Regulation, May 14-16, 2024.

IOWA STATE UNIVERSITY POINTS OF CONTACT

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