



Vaccines and Immunotherapeutics

Innovation Ecosystem 2022 Year-End Update

Iowa State continues to expand the reach and impact of the university's Bioscience-focused Innovation Ecosystems with the critical support of the Iowa Legislature, and in close partnership with [BioConnect Iowa](#).

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Iowa State

KEY AREAS OF EMPHASIS

- Expanded innovation and technology available for licensing and commercial development:
 - External funding through strategic partnerships with Merck Animal Health (MAH) and [Ceva Animal Health](#);
 - Platform seed grants supporting public-private collaborative research: 13 grants in total that include investigators from ISU Vet Medicine, Veterinary Microbiology and Preventive Medicine, Nanovaccine Institute, and the College of Engineering. Commercial partners include: [Boehringer Ingelheim](#); [MERCCK](#); [LEAH Labs](#); [Medgene Labs](#); [Arko Laboratories](#); [Nitto BioPharma, Inc.](#); [Elanco](#); [Genvax Technologies](#); [NeoVaxSyn, Inc.](#); [Mazen Animal Health](#); and [Purina](#).
- Infrastructure and training to increase commercial development:
 - [CYVAX](#) officially launched in 2022. Located in the ISU Research Park, CYVAX is a vaccine development laboratory focused on USDA-compliant master seeds, manufacturing scale-up and commercial development of materials used for clinical trials.

Startup Support:

- Awarded the first Vaccines and Immunotherapeutics Innovation fellowship, which provides resources to allow active pursuit of technology licensing, commercial partnerships or a new venture. HALIDE, a University of Iowa startup with a technology focus on stabilization of proteins involved in human therapy, was the recipient;
- Worked with BioConnect Iowa to Identify candidates for focused support.

KEY ACCOMPLISHMENTS

- External funding:
 - Finalized three-year strategic partnership with Merck guaranteeing funding of at least \$250,000 per year. By end of 2022, more than 15 animal health projects were in place, exceeding \$900,000 in funding, and ten new additional projects were being assessed;
 - CEVA also progressing toward Master Agreement and strategic partnership. ELANCO and Biogenesis recruited to ISU RP.

CYVAX:

- By the end of the year, CYVAX had two tenants – [Skybird Research](#) and 3D Health Solutions – with three additional companies assessing lease options
- In October, CYVAX – partnering with [Bio-Techne](#) – hosted an inaugural ISU-Industry training session focused on commercial development with 25 participants.

2023 KEY OPPORTUNITIES

- Continue efforts to leverage CYVAX as an entry point for already-existing companies to establish a presence in Iowa and to support the technology development and growth of startup companies.
- Focus on advanced manufacturing options for both animal health and FDA by redevelopment of the GMP facility at ISU Research Park (former Newlink facility).
- Continue developing the commercial environment via formal advisory teams, BioConnect Iowa, and linkages to ISU entrepreneurial programs.

IOWA STATE UNIVERSITY POINTS OF CONTACT

Dr. Peter K. Dorhout, Vice President for Research: 515-294-1785: dorhout@iastate.edu

Dr. Balaji Narasimhan, Platform Lead, Vaccines and Immunotherapeutics: nbalaji@iastate.edu

Dr. Michael Roof, Chief Technology Officer, Vaccines and Immunotherapeutics: mroof@iastate.edu

Carolann Jensen, State Relations Officer: 515-294-7239: cjensen3@iastate.edu