



IOWA STATE UNIVERSITY

Economic Development and Industry Relations

DELIVERING OUTCOMES TO MAKE IOWA STRONGER

Iowa State University Economic Development & Industry Relations

DAVID SPALDING

Vice President, Economic Development and Industry Relations



CONNECT WITH US FOR:

IOWA STATE UNIVERSITY

Economic Development and Industry Relations

IOWA STATE UNIVERSITY Office of Innovation Commercialization

- Commercialize technologies
- Negotiate industry research & partnerships
- Innovations and IP resulting from the research efforts at ISU
- Industry funded research
- Execute research agreements with industry and commodity groups



IOWA STATE UNIVERSITY ResearchPARK

- Economic development asset
- Innovation ecosystem
- Job creation, workforce solutions
- Access to talent, research and specialized equipment



AMERICA'S SBDC Small Business Development Center IOWA

- One-on-one counseling
- Business Planning
- Loan Readiness
- Market Research

CIRAS

- Business and technical assistance
- Training and education
- Growth, leadership, Productivity, Technology & workforce

IOWA STATE UNIVERSITY Pappajohn Center for Entrepreneurship

- In-classroom
- Out-of-classroom experiences
- Programs and competitions
- Competitive funding opportunities
- Venture support

99 County Impact!

Investment + Support = **IMPACT**

\$6
BILLION
ECONOMIC IMPACT



\$132 million financial impact from Startup Companies



\$41.1 million in capital raised



59,888 jobs supported



\$292.6 million research spending impact



1,336 workforce grants for high demand jobs

Nationally Recognized for Impact!

Recognized nationally and globally for our work in Economic Development and Innovation. Iowa State has had an IEP University designation since 2016.

IEP Awards:

2023 – Connections Award Winner - top IEP prize

2022 – Innovation Award Winner

2021 – Place Award Winner

2020 – Innovation Award Winner

2018 – Innovation Award Finalist

2017 – Talent Award Winner



ISU Pappajohn Center for Entrepreneurship

Recent Awards:

2026 – Iowa State ranked #9 by the Princeton Review for Undergraduate Entrepreneurship

2025 – Global Consortium of Entrepreneurship Centers (GCEC) Legacy Award

2024 – USASBE Model University Accelerator

2024 – Exceptional Contributions in Entrepreneurship Research (GCEC)

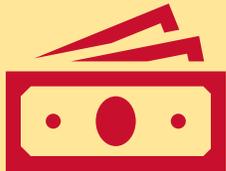
2023 – ACEEU's Entrepreneurial University of the Year in the Americas

2022 – Nasdaq Center for Entrepreneurial Excellence from the GCEC

2021 – USABE Model Program Award



\$257,600+
awarded to young
entrepreneurs



4,500+ individuals
participated in programs,
training, and student
experiential learning



CyBIZ Lab served
42 companies
and employed
39 unique students



80% of Cystarters
accelerator alumni
Are still in a startup
or small business

67% of alumni live
and work in Iowa



ISU Startup Continuum



From IDEA > Iowa Company > Iowa Jobs

165

of companies that have completed the Startup Factory Program

5

Exits via acquisition since 2016

167

of jobs reported by founders

\$108.3M

total capital raised since 2016 (non dilutive)



25

of companies that have completed the G2M Accelerator program since 2020

\$25.1 M

total G2M funding (includes double-counts for startups that participated in both programs)

Entrepreneur Stories | Colin Hurd



ISU Connection

- ISU Ag Studies & Business alum
- Long-time contributor to ISU's startup ecosystem through Ag Startup Engine (Co-Director since 2020).

Company Outcome

- Founded and exited multiple ag-tech companies: Agriculture Concepts → Yetter; SmartAg → Raven; Haber → Shivvers
- Mach (Founder and CEO since 2022): OEM partner of off-road autonomous agriculture

Iowa Impact

- Number of employees: 17

IEDA Funding

- Investment Capital, most recently Series A

ISU Startup Factory

- 2017



Entrepreneur Stories | Kyle McMahon



ISU Connection

- ISU Landscape Architecture alum (Entrepreneurship minor)
- Active in ISU's startup programs (Startup Factory, OEI)

Company Outcome

- Built multiple ventures including Tractor Zoom, a leading online ag equipment marketplace
- \$25M raised

Iowa Impact

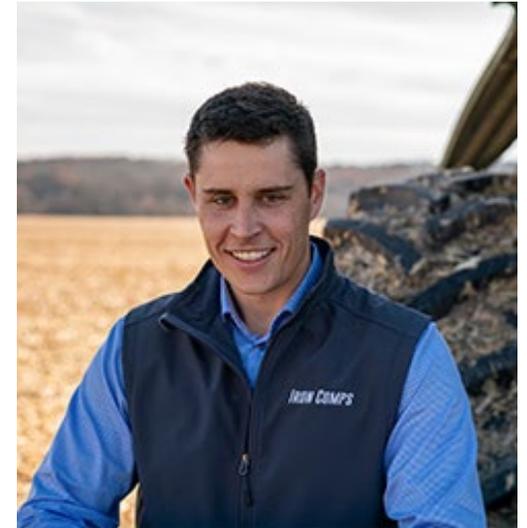
- Number of employees: 66

IEDA Funding

- Local and National Investment Series A and A2

ISU Startup Factory

- 2018



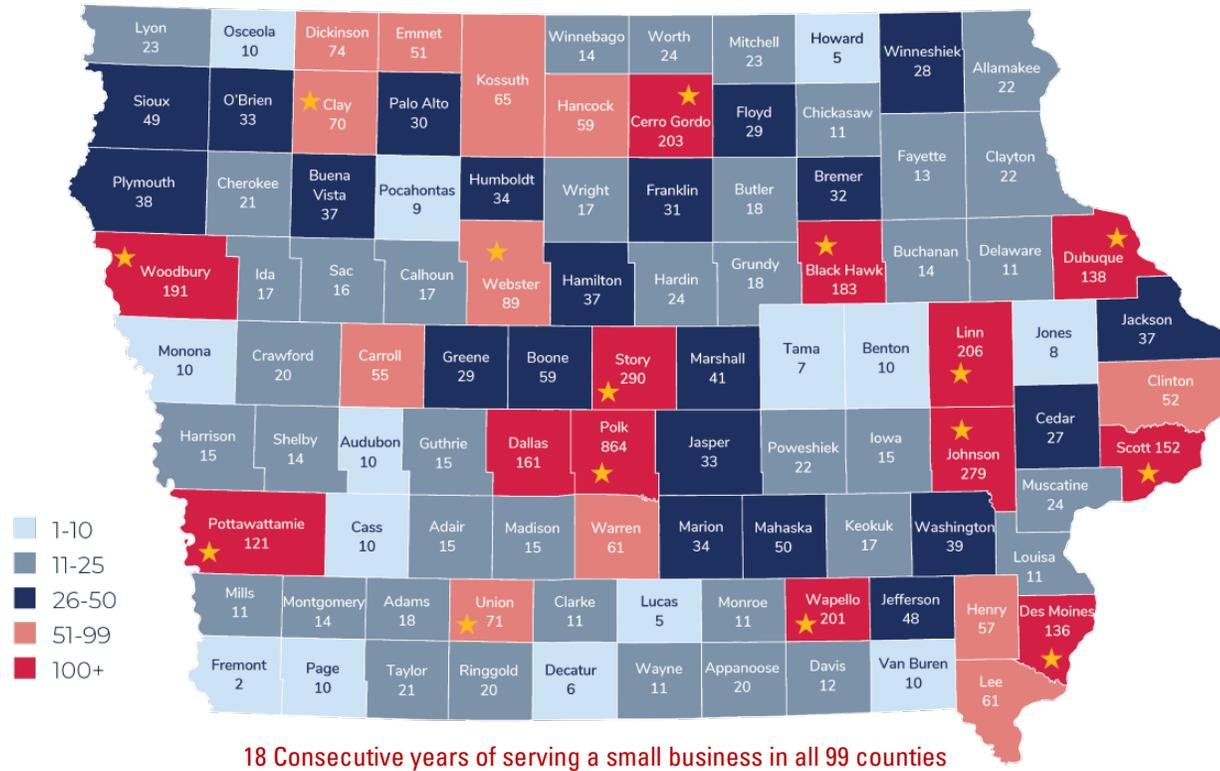
Jingle & Mingle Holiday Market

Year	# Vendors	Attendance	Reported Sales*
2023	27	1449	\$9,300
2024	30	1000	\$7,419
2025	49	1743	\$11,683

* Vendors reporting: 2023 (76%), 2024 (73%), 2025 (59%)



Clients Advised by County



18 Consecutive years of serving a small business in all 99 counties

★ Regional SBDC Center



5465

Clients Advised



\$126.4 M

Sales Increases



235

New Business Starts



1195

Jobs Created



\$82.9 M

Capital Infusion



20 New Businesses Every Month	\$346,000 In Sales increases Every Day	170 Jobs Created Every Month	\$227,000 In Capital Funding Every Day
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2025 ENTREPRENEUR OF THE YEAR AWARDS



Abe Sandquist

Abe Sandquist is a pioneer in the agricultural waste industry with 20+ years of experience. Through Natural Fertilizer Services, farmers are assisted with environmental compliance, handling, logistics, and application aspects of manure.



"As I built Natural Fertilizer Services from the ground up, America's SBDC Iowa was an invaluable partner. Their support helped me strengthen my business, expand my services, and position NFS for continued growth and impact in sustainable agriculture."

-Abe Sandquist

NEAL SMITH ENTREPRENEUR OF THE YEAR



Sierra Elbert

Through Groom Curriculum, Sierra Elbert is leading a movement to professionalize dog grooming, expand access to education, and empower individuals to create a brighter future for themselves and the countless dogs they care for.



Starting Groom Curriculum sometimes felt like running through a foggy forest, constantly trying to navigate and avoid obstacles. Seeking assistance from the SBDC was like lifting that blanket of fog, giving us the clarity and direction we needed to move forward confidently."

-Sierra Elbert

DEB DALZIEL ENTREPRENEUR OF THE YEAR

CIRAS

The Center for Industrial Research and Service (CIRAS) helps Iowa businesses solve complex problems and stay one step ahead by providing **expertise, connections,** and the **confidence** to move forward.

Over the past five years, CIRAS and our partners have helped more than **4,400** clients in all **99 Counties**; generating an economic impact of more than **\$2.7 billion**.

Innovative Problem Solving

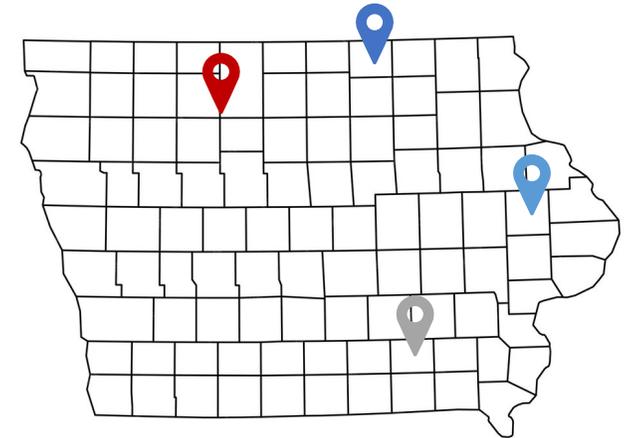
Country Maid
Employees: 125
Impact: \$22M impact through phased improvement plan - increased production efficiency and reduced downtime for a resilient growth-ready operation.

BluTrack
Employees: <10
Impact: \$210K in new sales through digital marketing support

Valent Biosciences
Employees: 100+
Impact: \$400K

Ajinomoto
Employees: 250 (IA)
Impact: \$800K

Unlocked fertilizer coproducts through ISU technical assistance



Driving AI Adoption Across Iowa

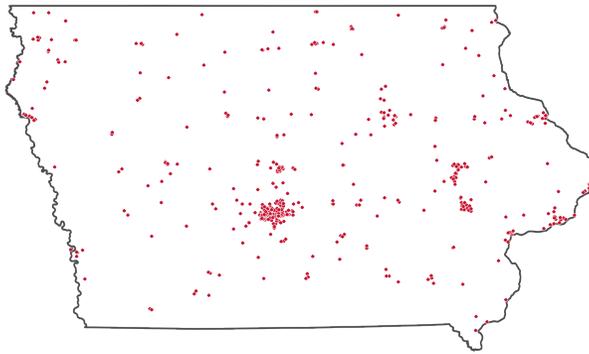
2024-2025

35 AI Events

1150 Distinct Iowa attendees

623 Distinct Iowa organizations

Iowa organizations attending CIRAS and Partner AI events 2024-2025



2026

Iowa AI Training for Industry Professionals

CIRAS

IOWA STATE UNIVERSITY
Translational AI Center

IOWA College of Engineering

The Iowa Initiative for Artificial Intelligence

1-Day Courses (Launching March 2026)

- AI Literacy
- AI Fluency
- AI Integration

**Statewide delivery in partnership with
Community Colleges**

ISU Research Park: Who We Serve



- Startup Companies
- Many Iowa Companies (typically with headquarters in rural Iowa)
- Large Companies
- Multinational Companies

Primary Markets

- Precision and Digital Agriculture
- Bioscience/Biobased Chemicals
- Vaccines/Immunotherapy
- Tech



How ISURP is different:

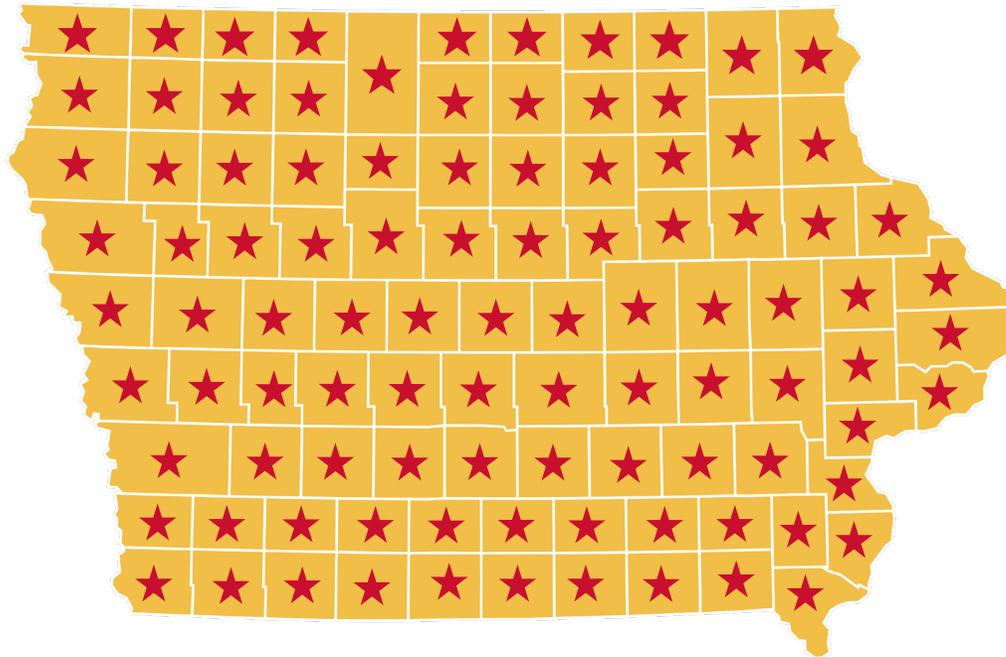
- No cornerstone company to jumpstart activity – consistent growth over the years
- Startup mindset
- Multiple ways to be present at the Research Park

Award Winning ISU Research Park

2025 AURP Distinguished Community of Innovation



ISU Research Park: A History of Statewide Impact



★ = All 99 County Research Impact

ACCESS TO
- TALENT
- RESEARCH
- SPECIALIZED EQUIPMENT

~2,500
PEOPLE ARE
EMPLOYED AT
ISU RESEARCH PARK

~500
INTERNS WORK AT ISURP
AT ANY GIVEN TIME

100+
STARTUPS TOUCHED
BY FEEDER PROGRAMS

5 IPO's
FIVE COMPANIES THAT WERE
STARTED AT ISURP HAVE HAD
INITIAL PUBLIC OFFERINGS

140+
COMPANIES AND 20-50 IN
VARIOUS INCUBATION
PROGRAMS

COMPREHENSIVE CORPORATE ENGAGEMENT STRATEGY

ISU Research Park: Project Updates

Alliant Energy Agriculture Innovation Lab



- **Public-Private Partnership**
- Completed December 2024
- 87,000 sq ft

Bayer Crop Sciences



- **Worldwide Impact**
- Occupied May 2025
- 36,250 sq ft

Strand Associates, Inc.

- **More Iowa Jobs**
- Complete December 2025
- 26,777 sq ft



Housing & Retail Space

- **Live-Work-Play**
- Complete Fall 2026
- Will add 125 housing units to the area

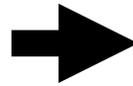
AND MORE TO COME!

ISU Research Park: BioMADE

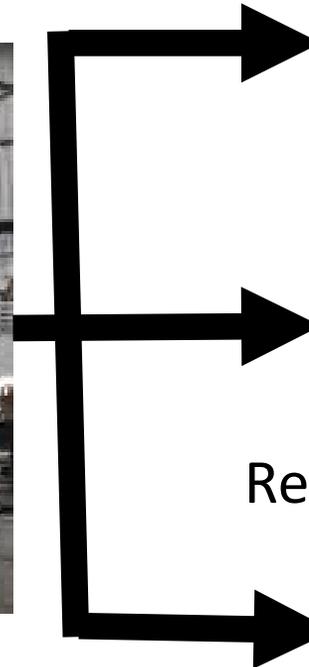
Iowa's Value Proposition



Iowa Corn



Fermentation



Bioplastics



Renewable Chemicals



Food / Feed
Ingredients

Note: Each facility is custom designed for product / process



BioMADE: Benefits to Iowa Industry

- ✓ De-risking for biotechnology projects - proof of scalability, needed engineering design information, and market development samples for customers
- ✓ Hands on training, workforce development for bio-process engineers, scientist and technicians, including company staff
- ✓ Cost share opportunity, both capital and operating
- ✓ Grow Iowa's technical workforce - creating expertise in a rapidly expanding industry – scientists, bio-processing engineers, and skilled technicians.

Project snapshot

- Partnership between Iowa State University, BioMade (DOD), and the ISU Research Park
- Multi-user bioindustrial manufacturing facility installed at ISU's existing Biocentury Research Farm (BCRF)
- Leverages BCRF's existing space, equipment and talent for optimal business case
- Investment: \$20 M from Federal (DOD-BioMADE), \$10 M from the state of Iowa and \$10 M cost share from Iowa State University



Office of Innovation Commercialization

ISURF

ISU Research Foundation

Owns and manages innovation & intellectual property arising from ISU research

Non-Industry Funded:

- ❑ IP Strategy
- ❑ Business Development
- ❑ Execute licensing rights

Industry & Commodity Funded:

- ❑ IP Strategy & IP reporting pre-granting rights

OIPTT

Office of Intellectual Property & Tech Transfer

Executes agreements with industry & commodity groups

- ❑ Negotiate Industry & Commodity research agreements
- ❑ Negotiates pre-partnership strategy & agreement terms
- ❑ Leverages existing ISURF portfolio & joint IP
- ❑ NDAs, MTAs, & Industry Evaluation Agreements

FY2025 Measures of Impact



Research & Development

- **\$329.9 M**, External Research Funding
- **\$27.9 M**, Industry & Commodity Research



Invention

- **436** Funded Agreements
- **101** IP Disclosures



Evaluation

- **131** Patent Applications



IP Investment

- **\$1.5 M** Invested in IP Portfolio
- **60** US Patents Issued:
 - #36 in US Universities
 - #57 Worldwide
 - #6 for Public Institutions w/o a Human Medical School



Company Partnerships

- **Multi-year, high value/\$ strategic alliances**, Bayer, Deere, Merck, etc.



Transfer Technology

- **108** License & Option Agreements Yielding Income
- **57** Licenses & Options Executed Worldwide (**30% in Iowa**)



ISU Innovations

- Vaccines, farm equipment software, watermelon variety, etc.



Public Use & Financial Returns

- **\$5.5 M in revenue**, highest level since 2013
- **\$15.3 M** Iowa Companies: Licensed Product Sales

2025 Biosciences:

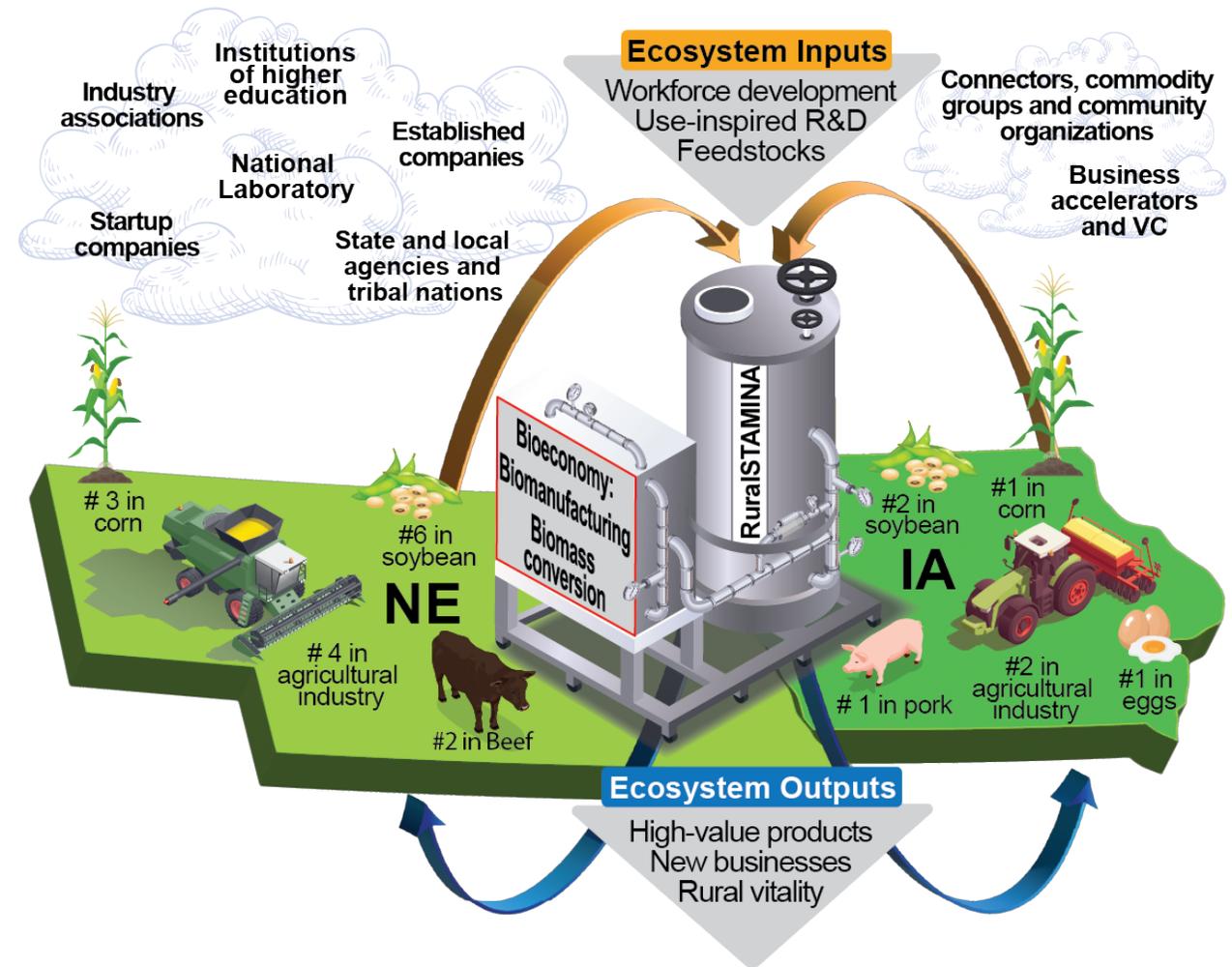
A State-Wide Growth Engine For Iowa

Research > Companies > Jobs > Natural Leadership



RuralSTAMINA: NSF Engine Finalist

- Iowa/Nebraska partnership to lead the nation in biomanufacturing of value-added products from agricultural feedstocks
- 80 partners
 - UI, UN-L, Community Colleges
 - Large and small companies
 - Venture Capital firms
- Funding up to \$160M over 10 years





Biobased Products

Kevin Moore, CTO

Iowa Selected for BioMADE Facility

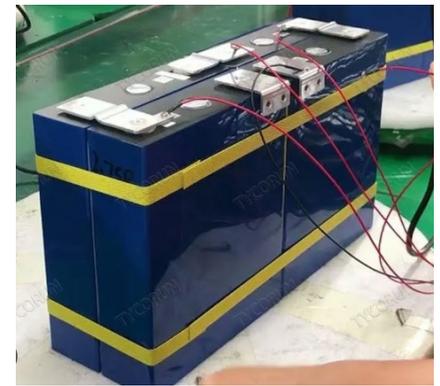
- Game-changing Defense biomanufacturing facility to be located at the BioCentury Research Farm
- \$20M from BioMADE; \$10M in cost-share contributions from ISU; \$10 in IEDA strategic infrastructure funding
- Startup in late 2027



Commercializing ISU Technology

Biobased products platform has provided seed funding for more than 50 projects, supporting 14 startups and partnering with 36 Iowa companies

- Additives for strengthening bioplastics in partnership with Evolve Golf
- Biochar as a feedstock for carbon anodes in lithium-ion batteries
- Soybean oil derived **fluorine free** non-stick coatings



SoyLei Innovations

- Commercializing soybean oil derivatives in asphalt
- Founded on technology developed by ISU chemical engineering researcher, Eric Cochran
- Sold over 300,000 pounds of asphalt rejuvenator products in 2025.
- SoyLei is cash flow positive and positioned for strong growth in 2026.





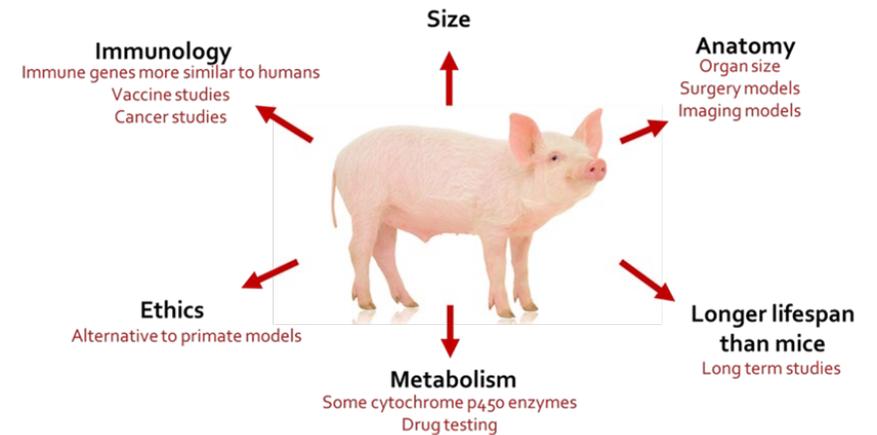
Vaccines, Diagnostics & Immunotherapeutics

Mike Roof, CTO

Animal Modeling

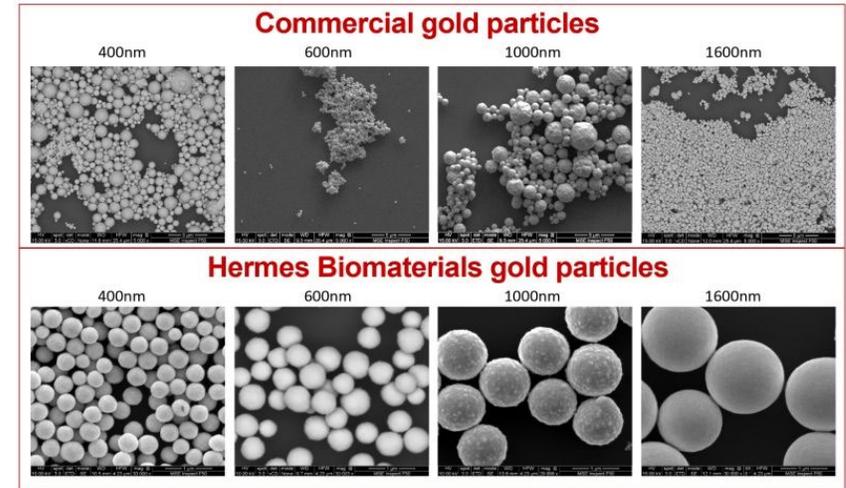
SCID (severe combined immunodeficiency) pigs – e.g., no immune system – advance human health discovery in:

- Human Pathogen testing
- Cardiac stem cell repair
- Cancer therapy
- Skin grafts
- Organ transplants
- Regenerative medicine



Hermes Biomaterials

- Biolistic delivery technology
- Applications for both plants and animals
- Founded by Iowa State faculty
- Utilized CyVax for early manufacture and compliance activity
- Company has expanded with increasing sales volumes



ImmunoNanoMed

- Inhalable dry powder technology that is room-temperature stable, efficacious, and safe
- Derived from the work of the Nanovaccine Institute
- IP Portfolio expanding
- Development partners identified
- Business organization/structure/board
- NSF Phase | STTR Awarded - \$300K

ANIMAL HEALTH

- Respiratory vaccines
- Multiple species

HUMAN HEALTH

- Respiratory vaccines
- Biodefense vaccines

DRUG DELIVERY

- Dose-sparing and safe
- Antibiotic resistance

IMMUNOMODULATORS

- Innate agonists
- Timed-release delivery

CANCER

- Drug delivery
- Immunotherapy

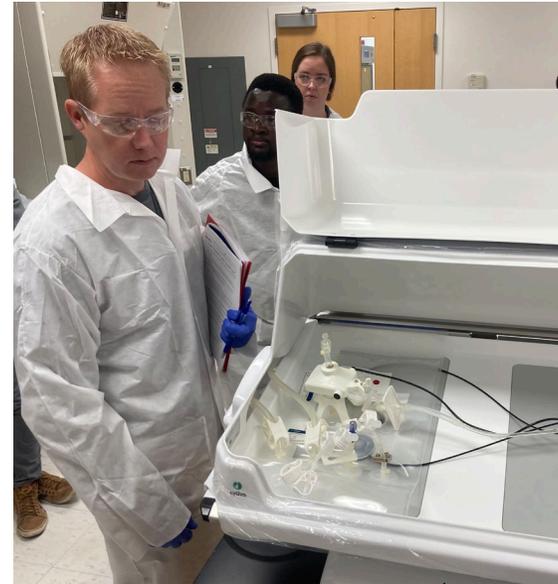
RELEASE IMPLANTS

- Swine sterilization
- Bovine immunocastration



CYVAX

- Providing commercial development and entrepreneurial support
- State-of-the-art advanced manufacturing techniques and testing
- Workforce development through training modules – over 150 trained; 60 graduate students and employees of nine companies





Digital & Precision Agriculture

Nadilia Gomez, CTO

Accelerating AgTech Entrepreneur Success



IOWA STATE UNIVERSITY
Remote Sensing and Imaging Lab



Accelerating AgTech Entrepreneur Success



Workforce Development

- Working with high school educators to accelerate students' understanding of opportunities in digital ag
- 39 educators applied; 22 – in 19 counties – selected.
- More than 300 students trained per year

Digital Ag
INNOVATION LAB

IOWA STATE UNIVERSITY
ResearchPARK




Ag Leader


CHS Foundation

Accelerating Innovation to Commercialization

- Iowa State collaborating with University of Alabama and University of Michigan in NSF dialogue about test beds and proving grounds
- Iowa State to host final workshop in late March



Why Biosciences Investment Works:

- Research > Commercialization
- Rural & Urban Impact
- Leverage Federal & Private Investment
- New Jobs that Stay in IOWA



Iowa State University Delivers Outcomes to Make Iowa Better

- Iowa Jobs
- Industry Ready Graduates
- Applied Research
- Rural & Statewide Impact
- Strong Return of Public Investment

Questions?

