

Economic Development and Technology Transfer at Iowa's Public Universities

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Entrepreneurship



245 start-ups launched by faculty and students in the last **5** years

\$30 million+ secured in outside funding for these startups

113 companies in research parks & incubators with **3,011** jobs

5,216 undergraduate students enrolled in entrepreneurial coursework

10,298 students participated in entrepreneurial programs on the three campuses



Entrepreneurship

The annual Innovation Expo hosted by UI attracted over 600 entrepreneurial thinkers to connect and network.



Entrepreneur-in-Residence, Kurt Heiar, was brought in by ISU to support the university's efforts to move technology into the marketplace and create jobs for Iowans.

UNI's annual Dream Big Grow Here program held 10 regional contests and a statewide contest awarding \$60,000, including \$15,000 to the winner. These contests engaged over 100,000 online voters.



Student Entrepreneurship



The John Pappajohn Entrepreneurial Centers at the three Regent universities provide thousands of students with coursework and guidance encouraging the entrepreneurial spirit



Graduate students Thomas Hornbeck and Hung Tran started Tutor Universe in 2011 at UI's Bedell Entrepreneurship Learning Laboratory. This social-network based market for online tutoring services has raised over \$500,000 in investment.

Michael Koenig conceived his business, ScoutPro, while taking an entrepreneurship in agriculture course at ISU. The company has created a mobile application to identify all weeds, insects and diseases in farm fields and finished second in the 2013 John Pappajohn Iowa Business Plan Competition.



Greg Jass and Therese Kuster started in the UNI JPEC student business incubator, merged with another company after graduating to form TargetClick in UNI's Innovation Incubator. TargetClick now operates as a division of Mudd Advertising with 20 employees.



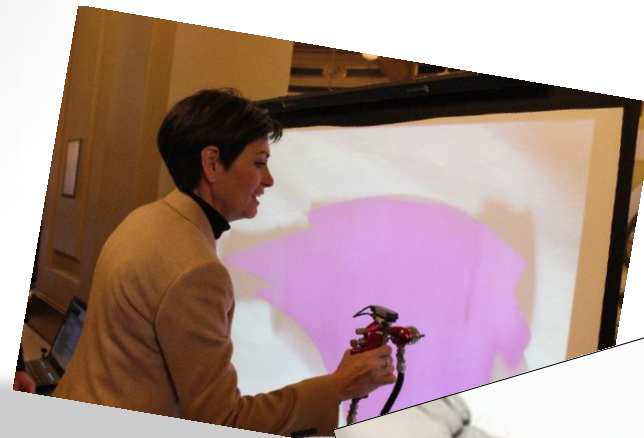
Research to Commercialization



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489 licenses and options in the last 5 years

173 in IOWA



967 IP disclosures

583 patent applications



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*Combined university numbers, FY2009-FY2013

Research to Commercialization



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Support for Iowa Innovation Council

MBA Program at UI

- Providing commercialization support for UI developed technologies

Demonstration Funds

- Provide many of the applications and serve on review teams

IP Webinars

- All three Regents universities presented technologies available for licensing to Iowa companies and economic developers



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Research to Commercialization



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University developed technologies licensed to Iowa companies:



Based in the BioVentures Center at the University of Iowa, Memcine Pharmaceuticals focuses on enhancing vaccine efficacy to improve human and animal health globally.

MEMCINE



BodyViz uses ISU developed technology to upload CT and MRI medical imaging in a usable interactive 3D format.



iTracking Research Inc. uses eye tracking technologies developed at UNI for market research and medical applications and is located in the UNI Innovation Incubator.



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Working Together



UI, ISU, & UNI

The JPEC's at all three Regents institutions have conducted the John Pappajohn Iowa Business Plan Competition for seven years.



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UNI & ISU

ISU is providing their intellectual property expertise to UNI by performing due diligence research for UNI-developed technologies.

UI & UNI

UNI's Metal Casting Center has collaborated with the University of Iowa for determination of thermo physical properties of foundry insulating materials and computer simulation software that can simulate the foundry casting to predict hazardous pollutants generated.

ISU & UI

Cooperative effort to offer a new, more flexible research sponsorship option

- Allows industry to pre-negotiate exclusive licenses
- Increases partnerships among the three Regents universities and industry
- Increases the rate of technology transfer to the private sector

Working Together



NSF EPSCoR provides support for key research areas at the three Regents universities, while establishing partnerships with the state's community colleges, private colleges, school districts, government agencies and industries to stimulate lasting research infrastructure improvements.



The three Regents universities make up half of six Iowa **STEM** hubs which work with business, industry, educational institutions, non-profit groups and others in their respective regions to provide more statewide access to **STEM** education programs.



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Assisting Iowa

Businesses & Local Development FY13



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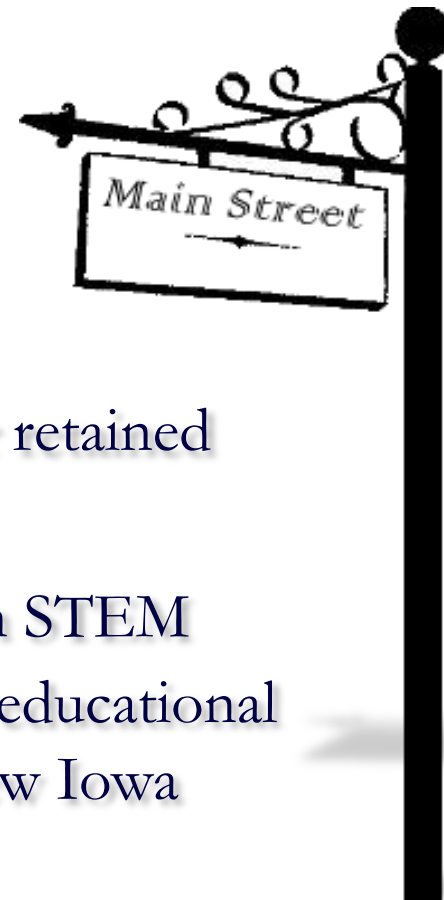
4,240 clients in **99** counties assisted by university centers and programs

512 new business start-ups assisted

21,332 hours of one-on-one consulting

11,000 estimated jobs created or retained

32,573 K-12 participants in STEM education, outreach and other educational opportunities for growing a new Iowa workforce



Assisting Iowa Businesses & Local Development



\$50,580,000 in revenue for Iowa companies from technologies and inventions generated by the three Regents universities in FY2013



80 new companies were formed in the universities' research parks and incubators in FY2013



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Assisting Iowa Businesses & Local Development



The UI Pappajohn Center directed over 50 student team field study projects designed to provide strategic business planning services to start-up and early-stage companies across Iowa.

The Institute for Physical Research and Technology (IPRT) focuses its research strengths on the development of new technologies through research in science and engineering. IPRT also provides assistance to Iowa manufacturers and other firms and offers several educational programs.



UNI's Advance Iowa program, Iowa's only certified Economic Gardening Center, assisted 12 second-stage companies using high-end tools and information to grow their business.

Overall Impact



- Leveraging state funding
- Statewide coverage – impact in all 99 counties
- Impact to Iowa companies of \$50,580,000
- Faculty, staff, and student involvement
- Collaborations and synergies to promote state-wide economic development
- More than \$82 million in corporate sponsored funding for research and economic development in FY2013
- Partnership with the Iowa Innovation Council, Iowa Innovation Corporation, Iowa Business Council, Regional Economic Development Organizations, and others

Regents Innovation Fund – FY2014 Projects



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UNI FY14 Projects

Innovation

- Expanded Innovation Research Competition
- Apps Lab for Mobile Applications
- Additive Manufacturing
 - 3D Printing for Castings Industry



Entrepreneurship

- Speak Out Small Business
- Advance Iowa – Statewide



MarketSolve / Market Intelligence

Regional Development

- Reorganizing Iowa's Regions



SMS MarketSolve

A program to help Iowa companies increase sales.

Economic Development Impact

Entrepreneur Startups

- 40 Companies Incubated
- 57 Student Companies Launched
- 10 New Technologies Being Pursued

Entrepreneur Support

- MyEntre.Net Resources – Build Outs
- IASourceLink.com
- Business Concierge
- Advance Iowa Launched
- Incubator Expansion

MyEntre.Net
DREAM BIG. GROW HERE.

Business Concierge
Ask Us Anything!

IASOURCELINK

ADVANCE IOWA
The Iowa Economic Gardening Network

RIF FY2014 Plans

Proof of Concept Initiative (\$585,000)

- Continuous RFP
- Partner start-up and small companies with ISU researcher
- Funded in two phases, each phase \$50,000 over six months

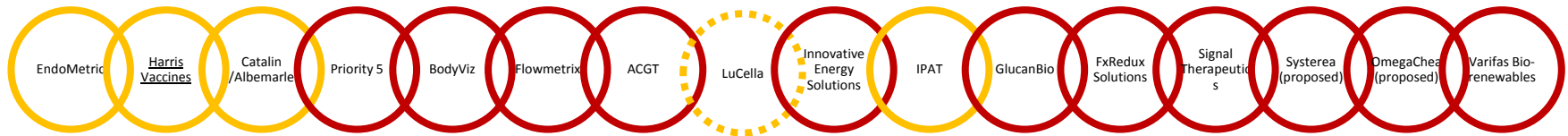
Programmatic Support

- Research Park (\$125,000)
- Pappajohn Center (\$200,000)
- OIPTT (\$35,000)
- SBDC (\$105,000)

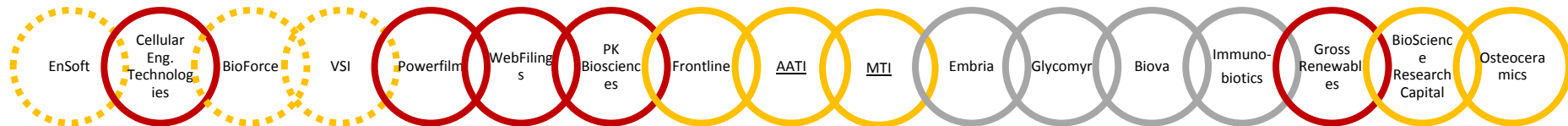
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Economic Development Funded Projects (GIVF/RIF and i6)

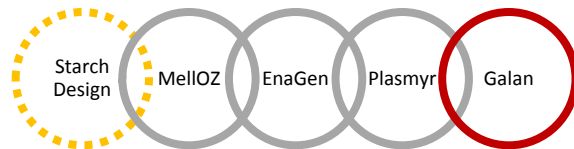
Companies started with GIVF/RIF/i6 research funds



Other Start-up companies with GIVF/RIF/i6 projects



Start-ups that were started and/or assisted by GIVF/RIF/i6 but failed or are suspended pending investment



- \$9.0M in research funding (~\$1M in still-active research projects)
- More than 60 companies have participated, including
 - 38 start-ups
 - 21 companies formed in 7 years
 - Licensed (or in process) : ISURF Intellectual
 - Property (underlined are generating licensing revenue)

- Technology previously licensed or optioned

FY2014 Projects

Entrepreneurship and Technology Commercialization

- **Gap funding:** financial support for faculty to advance applied research and commercialization of UI technologies
- **Innovation competitions:** seed funding to stimulate discovery and initiate new venture formation.
- **Commercialization support:** direct technology and business mentoring and educational programs.
- **Technical and business assistance:** collaboration to support innovative solutions for Iowa companies
- **Student engagement:** connecting students to Iowa businesses for experiential learning and internships.



Economic Development Impact

Technology Company Formation & Expansion:

- FxRedux Solutions
- NanoMedTrix
- Virtual Systems Engineering
- Iowa Approach
- Memcine Pharmaceuticals
- ASL Analytical
- Exemplar Genetics
- KemPharm
- Bio::Neos
- Venturen

Student Entrepreneurship:

- Tutor Universe
- Higher Learning Technologies
- TranslaCare
- Mazira
- I3Dots
- Telepharm
- ClusterFlunk
- Farm Manuals Fast
- Sculpt
- Widespread Threads



UI John Pappajohn Entrepreneurial Center Statewide Engagement

