



# **IOWA** Centers for Enterprise

## **Joint Economic Development Appropriation Subcommittees**

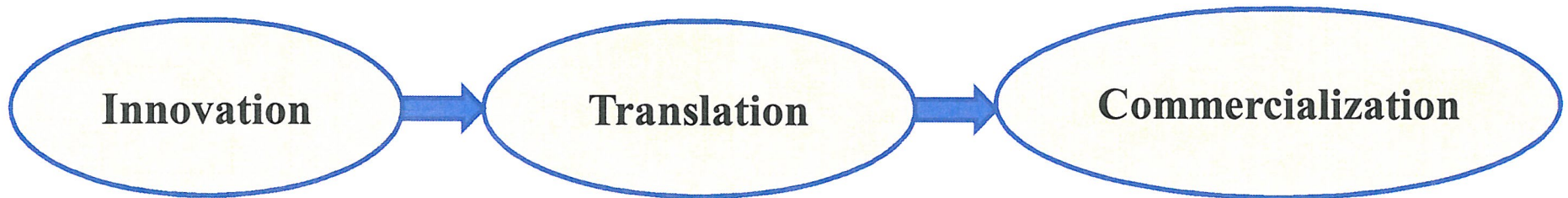
**February 17, 2010**

**Jordan L. Cohen**

**Cheryl Reardon**

**The University of Iowa**

**University Research** is a major source of R&D in the country and an economic engine for the state of Iowa.



**UI extramural funding = \$430M in 2009**

## Accomplishments

- **BioVentures Life Science Incubator**
  - 9 of the 20 laboratories (45%) are occupied
  - 11 of the 19 offices are occupied (57%)
  - There are 6 companies in the building with 3 deriving from UI Technology – Terpenoid Therapeutics, ASL Analytical, Exemplar Genetics.
- **The Technology Innovation Center** is the University's oldest business incubator offering office space to technology based companies.
  - It has 12 companies with an occupancy rate of 85%.
- **The University of Iowa Research Foundation**
  - Disclosures = 70
  - Patents filed = 69
  - Licenses = 30
  - Entrepreneurial In Residence





# IOWA Centers for Enterprise

## Examples of Recent & On-Going Startups

Company Name	Industry Sector	Stage	Iowa Co.	New Since '05
Advanced Infoneering Inc.	Synthetic vision for aviation	Product dev	*	
<b>ASL Analytics Inc.</b>	Noninvasive chemical, glucose monitoring	Product dev	*	*
Behavioral Diagnostics Inc.	Diagnostics for depression, alcoholism	Proof of concept	*	*
Coley Pharmaceutical	Hepatitis, asthma, allergy therapeutics	Acquired by Pfizer		
<b>Exemplar Genetics, Inc.</b>	Animal models of disease	Product dev, sales	*	*
Medical Imaging Applications	Medical image analysis	Product dev, sales	*	
<b>Ophtherion Inc.</b>	Macular degeneration thera & diagnostics	Pre-clinical trials		*
Ovamed Inc.	Autoimmune disorders	Clinical trials		*
QuantCad LLC	Analytical software	Product dev	*	*
<b>QI2</b>	Management of image-based clinical trials	Product dev	*	*
<b>SantosHuman Inc.</b>	Virtual human simulation	Product dev	*	*
<b>Terpenoid Therapeutics Inc.</b>	Cancer therapeutics	Pre-clinical trials	*	*
Viewpoint Molecular Targeting	Cancer molecular imaging & therapy	Proof of concept	*	*
VIDA Diagnostics Inc.	Lung imaging and analysis	FDA approved, sales	*	
<b>Voltesla Inc.</b>	Advanced materials for energy systems	Proof of concept	*	*





# IOWA Centers for Enterprise

## Business Assistance

SBDC served 233 clients, assisted 29 business start-ups, and assisted clients in obtaining \$2.3M in SBA loans.

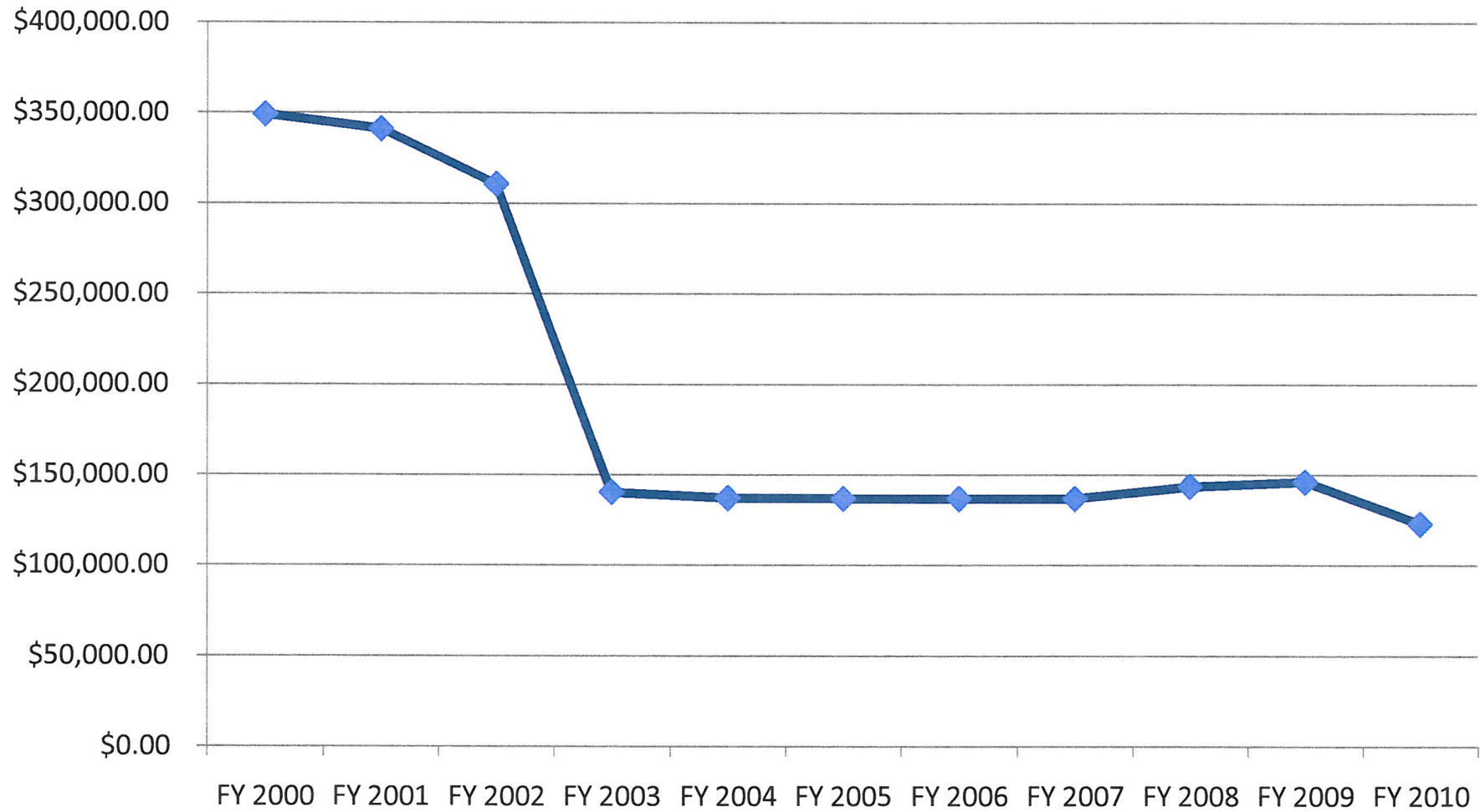
## Student Entrepreneurial Activities

- The UI's JPEC placed 23rd in the undergraduate ranking in Entrepreneur Magazine;
- 59 participants in FastTrac<sup>®</sup> Entrepreneurial Training programs in Iowa City resulting in an estimated 10 business start-ups and 88 jobs created;
- 51 student teams enrolled in Bedell Learning Lab since 2004 (27 in FY09) resulting in 11 new start-ups;
- Elevator Pitch competition.



# IOWA Centers for Enterprise

## State Appropriation Trend to Support of UIRP





# IOWA Centers for Enterprise

**2010 State Appropriation**

**\$221,937**

Oakdale Research Park = \$83,225

Technology Innovation Center = \$39,208

Center for Advanced Drug Development = \$99,504

**These funds are used for:**

- 1) operating expenses and personnel expenses associated with TIC & ORP
- 2) staffing, materials and supplies to support analytical testing for drug development



# IOWA Centers for Enterprise

## Overview of GIVF 2010 - \$1,732,500

\$450,000	Support new company formation through UIRF
\$357,000	Support operational and personnel costs of key economic development areas
\$300,000	Fund expenses at the new BioVentures Building
\$194,000	Support program integration and regional partnerships through OVPR
\$190,000	Support training, consultation and outreach for Iowa entrepreneurs
\$241,500	Expand the CBB into a state-of-the-art Bioprocessing Center





# IOWA Centers for Enterprise

## 2010 Seed Grant Competition

### Entrepreneurial Elevator Pitch Competition

- Undergraduate competition had 42 participants
- Faculty & Staff competition had 40 participants

### GIVF Seed Grant Competition

- \$300K pool to fund innovations with commercial potential. The funding is intended to stimulate faculty and staff applications in support of a wide-range of stages in technology development, from initial concept to proof of concept, to licensing and commercialization.
- Received 20 applications and funded 7 exciting proposals



# IOWA Centers for Enterprise

## 2010 GIVF Seed Grant Competition Winners

Adams, Chris	Application of a proprietary natural compound as a therapy for skeletal muscle atrophy	\$50,000
Anderson, Don	Software based 3D "puzzle" solutions to improve the reconstruction of compound fractures	\$36,064
Baker, Max	Improved anti-convulsant compounds for epilepsy	\$35,000
Das, Shuvendu	Developing lower cost building blocks for the manufacture of bio-therapeutics	\$27,000
Manak, John	Microarray technology for determining individualized genetic profile of disease	\$48,949
McCray, Paul	A proprietary natural oral substance to enhance respiratory immunity against viruses and bacteria	\$49,532
Schultz, Michael	A new imaging agent to improve prostate cancer diagnosis	\$49,500



# IOWA Centers for Enterprise

## Santos Human, Inc.

2005 - the military came to the University of Iowa with a problem – the need for a better, faster, safer method for fightability and survivability of our soldiers. The Virtual Soldier Research Program was launched to create Santos, a virtual human model.

2006 - Santos received \$370K in Battelle funds

2009 - company spun out from the research lab Santos Human, Inc.







# **IOWA** Centers for Enterprise

## **The University of Iowa Linkage to Economic Development in the Region and State**

- Maximizing the public good and economic value of innovation from faculty, staff and students
- Working cooperatively across the state and region to facilitate business growth and development
- Linking industry and business to UI assets
- IOWA Centers for Enterprise - A comprehensive program that promotes technology transfer, commercialization, and business development





# IOWA Centers for Enterprise

## Economic Development Partnerships

- IDED – Battelle, GIVF, emerging Iowa Innovation Council
- Regional – Iowa City Area Development, Priority One, Corridor Business Alliance, John Pappajohn Entrepreneurial Development Center
- EPSCoR – state capacity building grant to National Science Foundation



# IOWA Centers for Enterprise

## Contact Information:

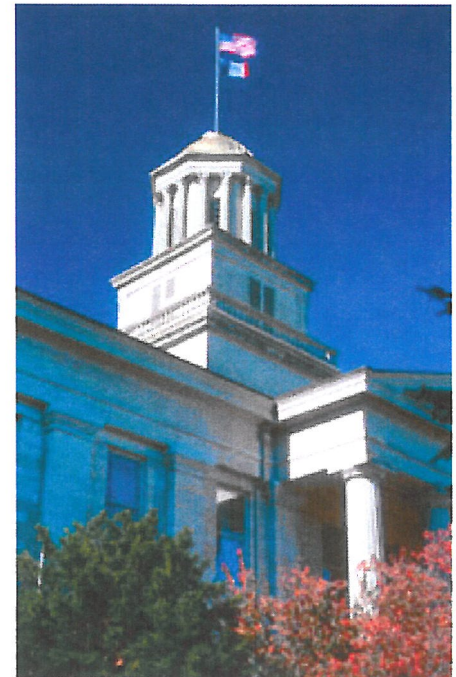
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# IOWA Centers for Enterprise

## ***February 2010 IOWA Centers for Enterprise E-NEWSLETTER***

### ***A word from the Vice President for Research & Economic Development***

On the morning of February 12, 2010, my office and the Directors of the IOWA Centers for Enterprise were guest speakers at ICAD's Annual Investor's Meeting. The meeting was held at the Athletic Club with approximately 50 attendees. Each director gave a brief description of their programs and gave examples of the many successes that demonstrate the impact that this Center has had on helping students and startup businesses succeed.

The IOWA Centers for Enterprise is a virtual organization of research and business development units across campus and is comprised of five University of Iowa units – The Office of the Vice President for Research & Economic Development, The John Pappajohn Entrepreneurial Center, the UI Research Foundation, the Small Business Development Center, and the UI Research Park. These units work cooperatively to help link industry and business by providing entrepreneurial education, business consulting services to start-ups and growing Iowa-based companies, promoting technology transfer and commercialization and business development, and providing state-of-the-art facilities to nurture early stage businesses.

On the afternoon of February 12<sup>th</sup>, the IOWA Centers also hosted a program and reception for business and community leaders in southeast Iowa. President Sally Mason welcomed the guests and talked briefly about the University's commitment to economic development in the State of Iowa. The event celebrated the individual and collective accomplishment of the UI community members by recognizing faculty, staff and student innovation. Award recognition was given to many of our students and faculty as well as recognition to start-up companies located on the UI Research Park's BioVentures Center and Technology Innovation Center. The event also highlighted the impact and successes that we have made by recognizing some of our other economic development partners such as Curtis Nelson, CEO of the Entrepreneurial Development Center in Cedar Rapids. The EDC was instrumental in securing funding for J&J Solutions and Terpenoid Therapeutics, two of the Research Park's start-up companies located in our business incubators.

After the program, guests were invited to network with staff of the IOWA Centers for Enterprise as well as with our faculty, staff and students.

Other dignitaries attending this event were Regent Jack Evans, Congressman Dave Loebsack, Dan Smith, Economic Development Liaison for Senator Harkin's Office and David Leshtz, Liaison for Congressman Loebsack, Jim Fausett, Mayor of Coralville and Kelly Hayworth, City Administrator, City of Coralville.

Regards,

Jordan Cohen, Vice President for Research & Economic Development

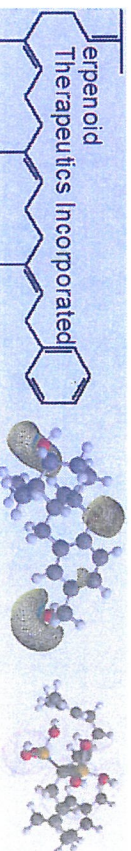


## IOWA Centers for Enterprise: Success Stories



### J&J Solutions

J&J Solutions has patents pending and working prototypes on a disposable medical device enabling safer, more efficient and cost-effective preparation and delivery of chemotherapy drugs. The founders, John Slump and Jared Garfield, started the business as students at The University of Iowa as part of the John Pappajohn Entrepreneurial Center program. JPEC enabled the founders to travel across the country to compete in and win many business plan contests, supplying critical early-stage funding. JPEC also provided free office space, resources, and mentorship at the Bedell Entrepreneurial Center for over three years. The Company has since graduated and now has an office at the UI Research Park's Technology Innovation Center, business incubator. The company has four employees.



### Terpenoid Therapeutics

Terpenoid Therapeutics is a drug development company focused on novel treatments for cancer. The technology is based on research from the UI departments of Chemistry, Pharmacology, and Internal Medicine and the Holden Comprehensive Cancer Center. The company was founded by Professors Raymond J. Hohl, M.D., and David F. Wiemer who have been interdisciplinary research collaborators for fifteen years, along with two of their former students Jeffrey D. Neighbors and Andrew J. Wiemer. Hohl is Associate Chair of the Department of Internal Medicine at the UI Roy J. and Lucille A. Carver College of Medicine and Associate Director of Translational research at the Holden Comprehensive Cancer at Iowa. David Wiemer is Chair of the Department of Chemistry in the UI College of Liberal Arts and Sciences. Both hold appointments in the Department of Pharmacology. The company has two broad drug development projects, both aimed at treating different types of cancer and based on patents issued to the University of Iowa Research Foundation and licensed to Terpenoid. Terpenoid has received ~\$1.5M in grant funding from the both the NIH and the Iowa Department of Economic Development and last year completed a Series A funding round of \$1.5M. Terpenoid Therapeutics is one of six companies located in the UI Research Park's new BioVentures Center business incubator.

## IOWA Centers for Enterprise Units

### John Pappajohn Entrepreneurial Center (JPEC)

The John Pappajohn Entrepreneurial Center (JPEC) at The University of Iowa is one of the nation's top undergraduate academic programs and provides entrepreneurial education and business consulting services to start-up and growing Iowa-based companies.

JPEC's comprehensive entrepreneurial education program is offered to all Iowans. Any undergraduate student at The University of Iowa may earn a Certificate in Entrepreneurial Management in addition to their undergraduate degree. Advanced courses are offered to MBA students on campus and at several



locations across the state of Iowa. The nationally acclaimed certificate is also available online through The University of Iowa's distance education program.

The Certificate in Entrepreneurial Management is designed to empower imagination, apply knowledge, encourage innovation, and accelerate career and entrepreneurial success. Throughout the program, students develop critical skill necessary for pursuing their professional career aspirations such as innovation and creativity, opportunity recognition and assessment, strategic business planning, leadership, negotiation and conflict resolution and financial analysis and budgeting.

JPEC also plays an important role in the development of Iowa-based technology and high-growth start-up companies. A select team of experienced entrepreneurs and business leaders are available to assist Iowans in creating and growing successful companies. Whether providing one-on-one consulting services, directing UI students on advanced field study projects, assisting business with accessing capital, providing training and seminars to business executives, or connecting businesses and students with The University of Iowa resources, JPEC seeks to support the next generation of entrepreneurs and business leaders.

The Jacobson Institute for Youth Entrepreneurship is part of a larger University of Iowa effort encouraging entrepreneurial engagement at all ages. Through a strong commitment to engage people of all ages in entrepreneurship education, JPEC began offering youth entrepreneurship programs in 1999.

The Jacobson Institute for Youth Entrepreneurship is a comprehensive program that enriches K-12 students' lives through classroom and practical educational experiences. Built on three key components—teacher education, development of innovative curricula, and outreach opportunities—the Jacobson Institute provides opportunities for both instruction and practice in entrepreneurship.

#### **Small Business Development Center (SBDC)**

The Small Business Development Center provides practical, hands-on assistance to all types of businesses, from start-ups to 500 employee firms. to companies with new and promising technologies.

Our training and counseling focuses on specific business needs and provides services such as: new business guidance, business planning & modeling, loan proposal assistance, financing options, market research services, business succession strategies, cash flow projections, human resource management, business growth strategies, and strategic planning.

#### **University of Iowa Research Foundation (UIRF)**

The University of Iowa Research Foundation (UIRF) - a 501C3 corporation - commercializes University of Iowa developed technologies and inventions through licensing and new venture formation, and manages the subsequent revenue stream.

The UIRF's primary functions are:

- New Ventures - identifying and developing new high growth UI technology spinout companies suitable for venture capital financing
- Licensing - finding suitable partners for commercializing UI technologies and inventions

- Intellectual Property - services - which include protecting UI inventions through patents and copyrights, advising on intellectual property terms for Clinical Trials and Sponsored Research, and executing out-going material transfers

#### Our Mission

- Champion the commercialization of selected UI inventions for public benefit and for return on investment
- Catalyze economic development and an entrepreneurial culture in Iowa
- Build the vitality and sustainability of the University and the community through technology commercialization
- Serve the research mission for continued innovation

#### Our Vision

The UIRF aspires to maximize public benefit through commercial use of UI technologies, excellence in commercialization, and long term sustainability.

#### **University of Iowa Research Park (UIRP)**

The University of Iowa Research Park (formerly Oakdale Research Park) leases building sites and space to growing technology companies. We offer companies locating at the Park convenient, sustained access to the extensive relevant research resources of The University of Iowa.

The Research Park has two business incubators. Our newest facility is the BioVentures Center, a 35,000 sq ft. facility that provides wet laboratory and office space to companies having a laboratory science orientation. We provide 20 wet lab modules each 700 sq ft. Our offices range from 150 to 300 sq ft. Tenants have access to a shared equipment room, executive board room conference rooms as well as access to many business, operational services and specialized research facilities at The University of Iowa.

The Technology Innovation Center is our oldest business incubator. Established in 1984, it provides office space to technology based companies. The facility has 40 offices ranging from 125 to 330 sq ft.

# BodyViz

