

**The University of Iowa
2007 Annual Economic Development Report
Submitted to
The Board of Regents**

EXECUTIVE SUMMARY

Inspired by the Grow Iowa Values Fund (GIVF) and the Battelle Reports on Biosciences, Advanced Manufacturing and Information Solutions, The University of Iowa took a fresh look at its economic development activities and reorganized and reinvigorated them in a way that engages the University more fully and effectively in Iowa's economic development. One important result was the formation in 2005 of the IOWA Centers for Enterprise. Another was the *strategic* investment of GIVF and Battelle funds in building the University's *capacity* to drive economic development based on its academic and research strengths and through the integrated efforts of the IOWA Centers for Enterprise. The GIVF and Battelle fund investments are *essential* to building the University's capacity to engage fully in Iowa's economic development.

The IOWA Centers for Enterprise is an integrated effort comprising the activities of six University units plus liaisons with each College on the campus. As an integrated organization, it embraces outreach, workforce development, technology transfer and commercialization, entrepreneurship, and research- and education-driven economic development. The six units of the IOWA Centers for Enterprise include:

- The Oakdale Research Park (ORP)
- The Technology Innovation Center (TIC)
- The University of Iowa Research Foundation (UIRF)
- The John Pappajohn Entrepreneurial Center (JPEC)
- The University of Iowa Small Business Development Center (SBDC)
- The Office of Corporate Partnerships (OCP)

Their contributions to Iowa's economic development are summarized in this report.

Institutional Economic Development and Technology Transfer Programs

The Technology Innovation Center fosters the development of new technology-based business ventures by offering specialized facilities and services to sustain them in their early, most vulnerable years. **The Oakdale Research Park** provides established corporations with easy, sustained access to relevant research resources at The University of Iowa. Firms in the park can expect to establish and sustain working relationships with UI faculty scientists, physicians, and engineers.

The 46 active Iowa companies affiliated with TIC and ORP reported 1,592 employees earning an average salary of nearly \$60,000. The four UI anchor laboratories at Oakdale reported another 188 employees, for a total workforce of 1780 employees. The 1,780 employees of TIC/ORP affiliate companies and labs reported living in 29 counties and 80 cities and towns in Iowa, a regional labor shed covering approximately one-third of the State.

Assuming a State income tax rate of 5%, employees of TIC/ORP affiliates paid approximately \$5.2 million in State income taxes in FY06. TIC/ORP affiliates reported employing 91 UI students, while 138 employees had earned doctoral degrees. In FY07 the TIC accepted two new tenant companies while four firms met their business goals upon “graduating” from the incubator. The ORP welcomed one new tenant, National Genecular Institute, Inc.

The University of Iowa Research Foundation is a non-profit corporation closely aligned with the UI. It takes ownership of and manages UI created intellectual property (IP) and the subsequent revenue stream related to licensing technologies. The UIRF works closely with UI faculty in developing the strategies required to commercialize inventions and intellectual property through the creation of new companies. This includes (i) Intellectual Property protection strategies and execution; (ii) commercialization strategies relating to licensing to existing or new companies; (iii) business model development for UI spinout companies (new companies based substantially on UI technologies); and (iv) due diligence on the viability of UI spinout companies.

UIRF invests human and capital resources in creating new business opportunities from that IP, some of which result in the formation of new companies and resulting jobs. For example, one of our new companies is projecting approximately 25 new jobs to be employed by the company’s R&D division located in Iowa City. In FY07 the UIRF received 89 disclosures of intellectual property, filed 130 patent applications related to University innovations, had 119 patent applications mature into issued patents, completed 34 license and option agreements related to University intellectual property, and received \$17.4 million in royalties and license fee income. The UIRF supported the formation and/or development of 7 new potential high tech companies; about half of these subsequently received federal or private funding in FY07 to advance their products.

The John Pappajohn Entrepreneurial Center provides a rich program of education and outreach services to undergraduate and graduate students at the University of Iowa and broadly to the entrepreneurial community in Iowa. It sponsors youth outreach programs directly to young people and to middle school and high school teachers by training and supporting them through incorporating entrepreneurship into their classrooms. With the support of a generous gift from Richard O. Jacobsen, in FY07, JPEC formed the Richard O. Jacobsen Institute for Youth Entrepreneurship. JPEC also provides a rich array of educational programs to entrepreneurs. It also sponsors a venture capital conference and is the regional administrator of the Wellmark Venture Capital Fund, a \$5 million fund created by Blue Cross and Blue Shield of Iowa to support the creation and growth of new businesses throughout the state. The Pappajohn Center also counsels entrepreneurs in forming business plans, obtaining capital for their business, and in a host of other business-support activities.

The Small Business Development Center provides a wide range of business counseling to small businesses in Iowa. In FY07, the SBDC served 222 clients in 13 Iowa counties, served 50 startups, dedicated almost 1,200 hours to clients, assisted clients in obtaining more than \$3.5 million in loans, and supported the creation of an estimated 117 jobs by its small business clients.

The Office of Corporate Partnerships links Iowa businesses to University of Iowa knowledge resources. It links Iowa companies to other units of the IOWA Centers for Enterprise and helps companies link with technical resources, faculty expertise, student interns, graduating students as employees, and many other resources of the University. The OCP works closely with the Iowa Department of Economic Development in economic development activities in which the University of Iowa can serve as a resource, and it serves as the single point of access for companies having inquiries and requests for assistance. In FY07, the OCP completed 37 visits to Iowa biotechnology, advanced manufacturing and information solutions companies. It arranged visits of companies and individuals to the University of Iowa campus and identified technical needs of several companies and worked with units of the University to address those needs.

Other Units:

Center for Advanced Drug Development (CADD)

The Center for Advanced Drug Development (CADD) is a division of the University of Iowa College of Pharmacy, and is located in the Oakdale Research Park. The Center offers contract services to the pharmaceutical and biotechnology industry which complement those of the College's Division of Pharmaceutical Service. All procedures are carried out in adherence to current Good manufacturing Practices (cGMP) as mandated by the FDA. The Division of Pharmaceutical Service, the only comprehensive FDA registered facility in a College of Pharmacy in the U.S., offers the unique capability to produce under contract limited quantities of new medicines under FDA approval. The capacity is particularly valuable to firms wishing to bring new products through clinical trials.

Currently CADD has 39 clients, three of these companies are located in Iowa. CADD has also been working in the current year with clients from Canada, Taiwan and Japan. A new trend among our clients is to not only file new applications at the FDA, but also at regulatory bodies in Japan and Europe, which means that our procedures must satisfy the different regulatory agencies.

Grow Iowa Values Fund Projects

Using the University of Iowa allocation of Grow Iowa Values Funds, the Office of the Vice President for Research established and implemented a program that incorporates two distinct and interdependent phases: I-START, which is targeted at the short-term goal of facilitating university-private sector partnerships in entrepreneurship and the creation of new companies and jobs in Iowa, and I-GROW, which is designed to address middle- to long-term commitments needed to strengthen the University's *capacity* to promote and sustain high tech entrepreneurship and promote research- and technology-driven economic development in Iowa.

I-START funds are being used to:

- Set aside funds for construction of a new life sciences business incubator – the UI BioVentures Center – which will begin in fall 2007 and be completed by fall 2008.
- Hire a seasoned (25+ years experience) technology transfer and economic development professional to lead the IOWA Centers for Enterprise in UI’s economic development initiatives.
- Provide gap funding for three faculty projects that show strong hope for commercialization. This funding is essential to move their nascent innovations down the developmental pipeline. All six projects (3 from 2006 and 3 from 2007) have a corporate partner and/or are being groomed as spin-out companies.
- Provide support to bolster the activities of the Office of Corporate Partnerships, which in turn supports the IOWA Centers for Enterprise in serving as the single point of access to companies seeking to link with the resources of the University to meet their needs.
- Support the hiring of a Faculty Entrepreneurship Coordinator in The John Pappajohn Entrepreneurial Center. This entrepreneur contributes to the undergraduate and graduate entrepreneurship curriculum, provides outreach to the community of entrepreneurs in Iowa, and counsels students, faculty and the public at-large concerning entrepreneurship.
- Hire a nationally recognized consultant to assist in developing the vision for a reinvigorated Oakdale Research Park and Technology Innovation Center. Hire consultants to assist in developing a signage plan, covenants and architectural guidelines for the Park, and a marketing plan for the BioVentures Center/Technology Innovation Center.
- Renovate the facilities of the Center for Biocatalysis and Bioprocessing to transform it into a facility that meets U.S. Food and Drug Administration current Good Manufacturing Practices standards necessary to be able to produce supplies of materials used in human clinical trials.

I-GROW funds are being used to provide a start-up funding package for the research program of Dr. Venkiteswaran (“Mani”) Subramanian, Director of the Center for Biocatalysis and Bioprocessing (CBB). Dr. Subramanian brings 24 years of industrial experience to the University, and this start-up package was essential in attracting this highly entrepreneurial faculty member to The University of Iowa.

Battelle Fund Projects

Battelle funds allowed UI to complete the following by the end of FY07:

- Design of the new life sciences incubator facility the BioVentures Center is complete. Construction will begin fall 2007 and be completed fall 2008.
- A building at Myriad Plaza on the Oakdale Research Park was purchased and renovated allowing UI to provide space for a company
- One endowed professorship was filled, allowing UI to retain one of our most entrepreneurial faculty who was being recruited by a university on the east coast.
- Eight platform research efforts related to IT, biogenetics, bio-imaging, drug discovery, therapeutics animal models, and genomics were bolstered.

Battelle Reallocation /Re-budget

During the August 2006 Board of Regents Meeting, the Battelle budgets for Infrastructure, Endowment and Core Platforms were approved. The Vice President for Research requests reallocation in two of these areas.

Core Platforms – the amount allocated to the Myriad Fit-Out should increase by \$90,000 for a total amount of \$1,090,000. When the original documents were submitted in August of 2006, the \$90,000 was inadvertently left out of the budget (docketed amount was \$3,600,000). By adding this amount to the Myriad Fit-Out, the total in the Core Platforms budget will be \$3,690,000.

Infrastructure – there was \$100,000 allocated to the Myriad Fit-Out under this section of the Battelle Budget. We request that this \$100,000 be reallocated to the New TIC (BioVentures) building. This reallocation would bring the TIC budget to \$1,420,000 and the Myriad Fit-Out to zero.

**The University of Iowa
2007 Annual Economic Development Report
Submitted to
The Board of Regents**

INTRODUCTION

Inspired by the Grow Iowa Values Fund (GIVF) and the Battelle Reports on Biosciences, Advanced Manufacturing and Information Solutions, The University of Iowa took a fresh look at its economic development activities and reorganized and reinvigorated them in a way that engages the University more fully and effectively in Iowa's economic development. One important result was the formation in 2005 of the IOWA Centers for Enterprise. Another was the *strategic* investment of GIVF and Battelle funds in building the University's *capacity* to drive economic development based on its academic and research strengths and through the integrated efforts of the IOWA Centers for Enterprise. The GIVF and Battelle funds investments are *essential* to building the University's capacity to engage fully in Iowa's economic development.

The IOWA Centers for Enterprise is an integrated effort comprising the activities of six University units plus liaisons with each College on the campus. As an integrated organization, it embraces outreach, workforce development, technology transfer and commercialization, entrepreneurship, and research- and education-driven economic development. The six units of the IOWA Centers for Enterprise include:

- The Oakdale Research Park (ORP)
- The Technology Innovation Center (TIC)
- The University of Iowa Research Foundation (UIRF)
- The John Pappajohn Entrepreneurial Center (JPEC)
- The University of Iowa Small Business Development Center (SBDC)
- The Office of Corporate Partnerships (OCP)

Their contributions to Iowa's economic development are summarized in this report.

- 1. Please briefly describe the relationship of your institution's economic development activities to the enhancement of economic growth in the state. The description should cover, but not necessarily be limited to the following:**
 - a. The relationship between institutional activities and creation of jobs and wealth in Iowa**
 - b. Institutional activities and services which indirectly promote economic development, such as training provided to staff of local economic development agencies.**

Technology Innovation Center & Oakdale Research Park

The Technology Innovation Center business incubator fosters the development of new technology-based business ventures by offering specialized services and facilities to sustain them in their early, most vulnerable years. The University of Iowa Oakdale Research Park provides established corporations with easy, sustained access to relevant research resources at The University of Iowa. Specialized UI laboratories especially relevant to needs of business and industry have been strategically located on the Research Park for easy corporate access. These “magnet labs” include facilities dedicated to human health and medicine, the Center for Biocatalysis and Bioprocessing (fermentation/industrial biotechnology), the Center for Advanced Drug Development (pharmaceutical assays and stability studies) and the National Advanced Driving Simulator.

Firms in the Innovation Center and Research Park can expect to establish and sustain working relationships with UI faculty scientists, physicians, and engineers. UI students find it convenient to secure internships and part-time employment with these firms.

The Center and Park are making important contributions to growing Iowa’s economy, and with the State, the region and the private sector as partners these programs are poised to implement a new vision for an even greater role in Iowa’s future economy.

In FY 2007, the 46 active companies affiliated with the Innovation Center and Research Park reported 1,592 employees. The four UI magnet laboratories on the Park reported 188 employees for a total work force of 1,780 for affiliates of the UI Innovation Center and Research Park. That total included 91 UI student employees and interns, while 138 employees had earned a doctoral degree.

Companies and laboratories affiliated with the UI Innovation Center and Research Park draw employees from a labor shed that covers 80 Iowa cities and towns and 29 Iowa counties – nearly one-third of the State.

The average annual salary of the corporate employees was more than \$58,000 and the average annual salary offered a new college graduate was more than \$40,000.

Assuming a State income tax rate of 5%, the employees affiliated with the Innovation Center and Research Park paid an estimated \$5.2 million in State income taxes in FY 2006.

In FY 2007, one new company, National Genecular Institute, Inc., moved to the Research Park; while two new companies, KemPharm, Inc. and The Thomas Group, became new tenants in the Innovation Center. One company, AISST (American Institute of Sustainable Science and Technology), graduated from the Center in FY 2007.

Also in FY 2007, the Innovation Center and Research Park completed feasibility studies and planning for a new life sciences business incubator facility that is expected to open in the Park in early FY 2009. Consultants completed a new master plan that will guide future development in the Park and began a needed revision of activity covenants and architectural

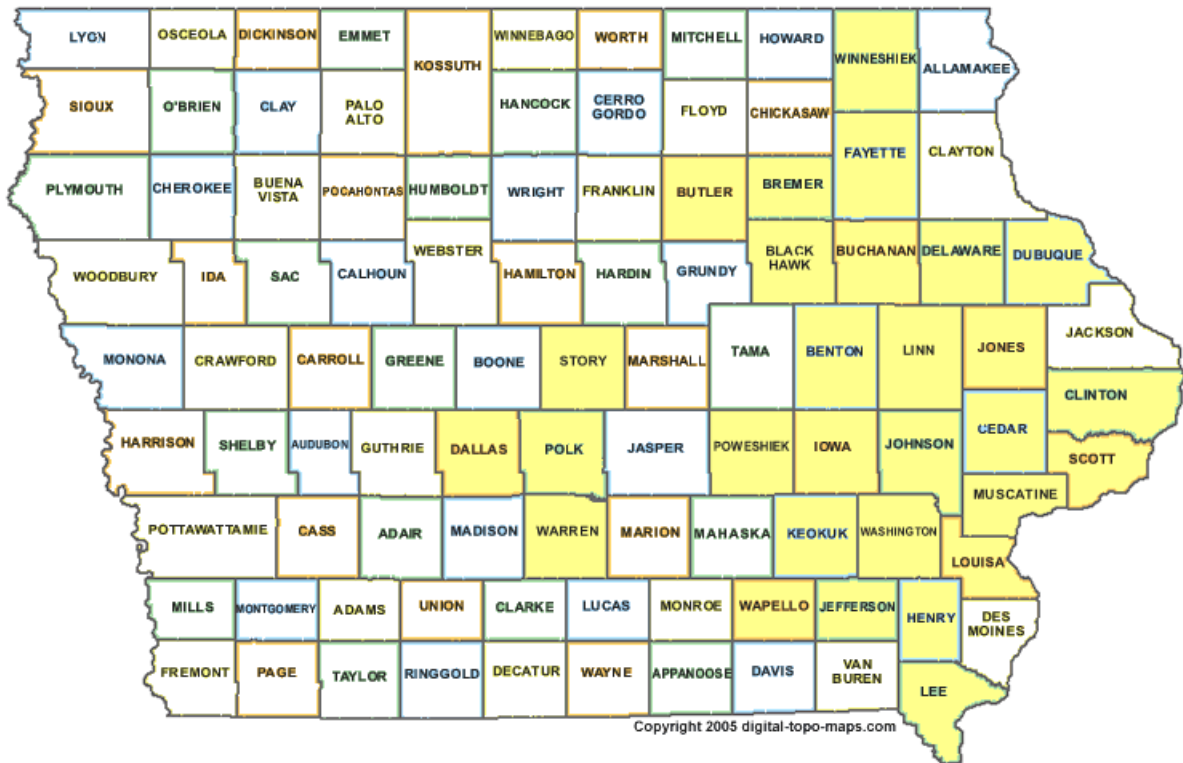
guidelines for the Park. A consultant was retained to prepare recommendations for comprehensive marketing plans for the Center and Park.

In FY 2007, the Technology Innovation Center initiated an Educational Seminar Series to address interests and needs of the Innovation Center tenant companies. The initial seminar program focused on UI Career Services to assist incubator companies in identifying and hiring top interns and graduates. A second seminar planned for early FY 2008 is a two-day workshop on SBIR/STTR Phase I and Phase II grant writing. More educational seminars are being planned for FY 2008.

In FY 2007, the Center continued to offer a series of programs called Tech Innovation Center Roundtables. These programs also focused on the needs of the Innovation Center tenant companies. Each Roundtable included substantive presentations by selected tenant companies on their activities, presentations by the Executive Director and staff, and participation by community partners and other units of IOWA Centers for Enterprise. Five Roundtables were presented in FY 2007 and a minimum of six are planned for FY 2008.

In FY 2007, State Special Purpose Appropriations for Economic Development were \$43,701 for the Innovation Center and \$92,961 for the Research Park.

FY07 Labor Shed for Affiliated Companies and Labs UI Oakdale Research Park and Technology Innovation Center



Labor Shed Counties in Yellow

The University of Iowa Research Foundation

The University of Iowa Research Foundation (UIRF) - a 501(c)3 corporation - commercializes University of Iowa developed technologies and inventions through licensing and new venture formation, and manages the subsequent revenue stream. The UIRF's contribution to economic development in the state of Iowa in FY07 fell into these categories:

- **GAP FUNDS:** Monitored and evaluated progress on the Gap Fund by matching GIVF monies with UIRF dollars to fund the development of 6 new UI spinout company product prototypes or core intellectual property.
- **NEW COMPANIES:** Formation and/or development of 7 new potential high technology companies; about half of these subsequently received federal or private funding in FY07 to advance products.
- **TECHNOLOGY MARKETING:** received 89 UI invention disclosures in FY07; filed 130 patent applications, and marketed approximately 800 technologies for licensing. UIRF is actively seeking out Iowa licenses whenever a match with company needs is found.
- **LICENSING:** Completed 34 option and license agreements, executed 3 licenses to existing Iowa companies. Note that UI's portfolio is largely human life sciences and currently has little overlap with most Iowa companies, although emerging software and engineering technologies should shift the mix over time.
- **REVENUES:** Received \$17.4M in licensing revenues, which helped to ensure UI technology commercialization, provided the UI, colleges, and departments revenues for further technology research, and rewarded inventors for entrepreneurial activity
- **IOWA EMPLOYMENT:** 12 full time employees, 2 part time employees, 1 industry consultant, 1 auditing firm and 2 law firms.
- **COLLABORATION:** Collaboration with other economic development organizations and individuals, such as Iowa City Area Development Group (ICAD), the Southeast Iowa Venture Fund (SIVF) and Iowa entrepreneurs and investors.

The John Pappajohn Entrepreneurial Center

Formed in 1996, JPEC is an innovator in delivering interdisciplinary courses and specialized life-long learning programs to meet the unique needs of aspiring entrepreneurs and leaders. JPEC offers academic programs and technology commercialization support.

Academic Programs

JPEC has developed a comprehensive, interdisciplinary program that combines academic coursework with experiential learning for all students across the UI campus. This innovative approach is designed to prepare graduates to pursue the creation of new ventures and apply entrepreneurship concepts in their career endeavors. Each year, over 2,000 students enroll in entrepreneurship courses at Iowa.

Certificate in Entrepreneurship

Students in business, health sciences, and liberal arts and sciences may earn the certificate in addition to their undergraduate degrees. The program encompasses advanced entrepreneurship theory and practice and teaches students how to apply entrepreneurship to their primary fields of study.

Technological Certificate

The first of its kind at any U.S. engineering college, the Technological Entrepreneurship Certificate gives engineering students specialized training on the entrepreneurial process. This program is a combination of advanced entrepreneurship and engineering courses specifically tailored for each engineering discipline.

Performing Arts Entrepreneurship Major

Performing arts students gain a competitive edge by earning an undergraduate degree in Performing Arts Entrepreneurship. Designed for students who intend to start their own business in dance, theatre arts, or music, this unique curriculum provides an avenue for developing core entrepreneurial skills.

MBA Concentration

The MBA Concentration in Entrepreneurship is designed for graduate students to study in an advanced, interdisciplinary environment with applications from medicine, engineering, computer science, and business. A strong emphasis is placed on starting and growing technology-based ventures.

Experiential Learning

Student teams conduct field study projects for area early stage companies working with entrepreneurs in the biosciences, information technologies, and advanced manufacturing industries, as well as faculty from the Colleges of Medicine and Engineering.

Entrepreneurship Club

Members of I-Envision, the campus wide entrepreneurship club, learn how to start and maintain businesses, work on community service projects, learn from successful entrepreneurs, and attend regional and national conferences. I-Envision is a member of the Collegiate Entrepreneurs Organization and Students in Free Enterprise.

Learning Community

Incoming first-year students have the opportunity to live with like-minded students on the Leadership Community in Business and Entrepreneurship residence hall floor. This unique living and learning environment provides students with educational and social opportunities while introducing entrepreneurship as a field of study and career path.

Business Plan Competitions

In addition to national competitions, UI students compete for seed funding through the Volding Business Plan Competition, the Storer Engineering Start-up Award, and the statewide Pappajohn NewVenture Business Plan Competition.

Entrepreneur-in-Residence

Sponsored by Iowa State Bank & Trust Company, this program partners successful entrepreneurs with business-minded students and includes intensive one-on-one mentoring. In addition, JPEC faculty and staff regularly mentor and assist UI student entrepreneurs, as well as help access capital including the Wellmark Venture Capital Fund, area angel networks, and other sources of funding.

Consider Iowa Internship

UI students gain firsthand experience at a start-up company through this unique internship program where entrepreneurship students work as paid interns in emerging Iowa businesses. JPEC provides training to the intern and business consulting to the host company.

Technology Commercialization

Providing specialized entrepreneurial education and consulting services to UI faculty, staff, and students is a major component of JPEC's overall mission to foster the spirit of innovation and entrepreneurship in Iowa. These activities lead to the creation and expansion of sustainable business ventures, while offering entrepreneurship students exciting experiential learning opportunities.

Technology Commercialization and Faculty Entrepreneurship

JPEC leads programs involving education and business support for technology-based ventures. The Center sponsors several seminars and workshops on entrepreneurship, technology commercialization, and new venture financing. One-on-one consulting and mentoring is also provided to UI entrepreneurs pursuing the creation of a technology venture.

E-Teams

JPEC faculty directs interdisciplinary commercialization evaluation teams of graduate students, faculty, and outside mentors. These teams conduct comprehensive market studies of UI-based technologies and often work closely with faculty entrepreneurs on the development of business plans for the creation of new technology ventures.

Other Units:

Center for Advanced Drug Development (CADD)

The Center for Advanced Drug Development (CADD) is a division of the University of Iowa College of Pharmacy, and is located in the Oakdale Research Park. The Center offers contract services to the pharmaceutical and biotechnology industry which complement those of the College's Division of Pharmaceutical Service. All procedures are carried out in adherence to current Good manufacturing Practices (cGMP) as mandated by the FDA. The Division of Pharmaceutical Service, the only comprehensive FDA registered facility in a College of Pharmacy in the U.S., offers the unique capability to produce under contract

limited quantities of new medicines under FDA approval. The capacity is particularly valuable to firms wishing to bring new products through clinical trials.

This Center, which is an integral resource in the state's bioeconomy economic development agenda, offers non-production services and contract services relevant to the clinical trials process which complement those of the Division of Pharmaceutical Service, and explicitly include:

- Management of FDA relationships for clients, especially in the processing of new drug applications,
- Development and execution for new chemical assays for new dosage forms and chemical entities,
- Development and execution of stability studies of candidate medicine dosage forms and
- Testing of active pharmaceutical ingredient/excipients for compliance.

This Center addresses a crucial economic need to shorten the lead time between new pharmaceutical discoveries in the laboratory and their commercialization in the market place. Because pharmaceuticals occupy such a potentially important part of the state's high technology portfolio, as well as a critical role in the University's economic development efforts, the Center increases economic resources in a strongly competitive environment. In addition, as the state looks ahead to an investment to enhance its biotechnology infrastructure for both animal and human health, the Center will play a major role (along with the Center for Biocatalysis and Bioprocessing and the Division of Pharmaceutical Service) in the University's ability to interact with the biotechnology industry to shorten the time to market for new therapies. This new initiative will also attract interest from a completely new industry base, composed of mainly start-up companies, who may be recruited to Iowa.

Initially, clients were drawn from the existing client base of the Division of Pharmaceutical Services. New clients are being drawn from biotechnology companies, manufacturers of pharmaceutical excipients, and a growing pool of U.S. and foreign pharmaceutical firms. The Center, as well as Pharmaceutical Services, are particularly well positioned to work directly with discoveries from Iowa university research laboratories; thereby providing an opportunity to hasten technology transfer and shorten the time to market. The presence of these FDA registered facilities along with the Center for Biocatalysis and Bioprocessing makes UI unique among US universities to provide this type of infrastructure for pharmaceuticals and biological products.

Currently CADD has 39 clients, three of these companies are located in Iowa. CADD has also been working in the current year with clients from Canada, Taiwan and Japan. A new trend among our clients is to not only file new applications at the FDA, but also at regulatory bodies in Japan and Europe, which means that our procedures must satisfy the different regulatory agencies.

At present, the personnel consists of 16.25 full-time employees. The majority of personnel are from surrounding cities, with some traveling as far as Oelwein and Muscatine.

CADD strives to continuously update instrumentation, the software packages used to control instruments and to calculate results, to ensure the availability of state-of-the-art facilities. All software packages are reviewed to assure adherence to FDA regulations for electronic equipment.

Minor renovation was undertaken in the Physiology Research Laboratory building, to be able to combine all the stability cabinets in a space that can be secured, to be compliant with the DEA regulations for controlled substances. An emergency power backup unit to the stability cabinets was also installed.

2. Please provide the following information for FY 2007: (If your institution utilizes additional metrics specific to your institution’s specialized areas of research or service, please include them here.)

a. Number of disclosures of intellectual property	87
b. Number of patent applications filed	
• U.S. Applications	72
• National Applications	45
• Patent Cooperation	<u>13</u>
• Total Applications	130
c. Number of patents issued	119
d. Number of license and option agreements executed on institutional intellectual property	34
• In Iowa	3
e. Number of license and option agreement yielding income	151
f. Revenue to Iowa companies as a result of licensed technology	\$1.5 million
g. Number of startup companies formed	1
• In Iowa	1
h. Number of companies in research parks and incubators	50
i. Number of new companies in research parks and incubators	3
j. Number of employees in companies in research parks and incubators	1,780
k. Royalties and license fee income	\$17.4 million
l. Total sponsored funding	\$382.2 million
m. Corporate sponsored funding for research and economic development	
• In total	\$41.8 million
• In Iowa	\$1.6 million
n. Iowa special appropriations for economic development in the following categories	
• Annual state appropriations for ongoing programs (such as research parks, SBDE, IPRT, IDM, Metal Casting Center)	\$247,005
• Grow Iowa Values Fund appropriations	\$1,925,000
• Battelle appropriations	\$8,410,000

3. Please describe the ways in which your institution is engaged in the following activities (For example, What is the nature of the outreach and service activities? Which units provide it? What kinds of people and organizations benefit?):

- a. Direct and hands-on technical assistance to businesses and entrepreneurs
- b. Direct economic development assistance to Iowa communities
- c. Economic development services provided by the research parks, incubators or similar service units

IOWA Centers for Enterprise Senior Staff Board and Related Affiliation

Senior Staff	Department	Board Affiliation
Vice President Meredith Hay	Vice President for Research	<ul style="list-style-type: none"> • US Bank Iowa City Community Advisory Board • Board of Directors for United Way of Johnson County • Member of United Way Johnson County Campaign Cabinet • Board Member, Cedar Rapids Chamber of Commerce Priority One • Member, Iowa City Area Development • Board Member, BIOWA • “Light the Night” Lymphoma/Leukemia Society Honorary Chair • Member, Iowa Business Council • Member, Bioscience Alliance of Iowa Board
Thomas R. Sharpe, Ph.D., Associate Vice President for Research: Economic Development	IOWA Centers for Enterprise	<ul style="list-style-type: none"> • Board of Directors, Technology Association of Iowa • Board of Directors, Iowa Information Technology Council • Board of Directors, Bioscience Alliance of Iowa • Board of Directors, Iowa City Area Development Group <ul style="list-style-type: none"> ○ Entrepreneurial Development Committee ○ Business Recruitment Committee ○ Existing Business Retention and Expansion Committee

		<ul style="list-style-type: none"> • Member, Iowa City Chamber of Commerce <ul style="list-style-type: none"> ○ Economic Development Legislative Subcommittee • Board of Directors, Junior Achievement of Eastern Iowa, Iowa City Area • Board of Directors, University of Iowa Research Foundation • Board of Directors, University of Iowa Research Park Corporation • Panelist, National Science Foundation SBIR/STTR Proposals Reviews
Pam York, Ph.D., Executive Director	University of Iowa Research Foundation	<ul style="list-style-type: none"> • Member, Prolog Venture Capital Deal Flow Committee for the state of Iowa • Board Member, Iowa City Area Development Group • Advisory Board Member, Pohaku, Inc. • Advisor, Southeast Iowa Venture Fund Foundation Board • Selection Committee Member, Technology Council of Iowa • Panelist, National Science Foundation Small Business Innovation Research (SBIR) program
Brenda Akins, Associate Director	University of Iowa Research Foundation	<ul style="list-style-type: none"> • Vice President and Board of Director, Iowa City Community School District Foundation • Outgoing Council, Chair and Council Member, Iowa City Area Chamber Community Leadership Program • Advisory Board, Iowa State Bank & Trust
Diane Gallagher, Director	Office of Corporate Partnerships	<ul style="list-style-type: none"> • Iowa Rural Development Council • Iowa Careers Consortium Advisory Board • Iowa Biotechnology Association
Paul Heath, Director	Small Business Development Center	<ul style="list-style-type: none"> • Board of Directors, MEI-Charlton • Iowa City Area Chamber of Commerce Legislative Economic

		<p>Development Subcommittee</p> <ul style="list-style-type: none"> • AICPA – American Institute of Certified Public Accountants • IMA, Institute of Management Accountants • University of Iowa Small Business Development Center Advisory Board • Professional Developers of Iowa • Old Capitol Kiwanis Club • American Institute of Individual Investors
--	--	--

The Technology Innovation Center and Oakdale Research Park

The UI Oakdale Research Park (ORP) and the affiliated UI Technology Innovation Center (TIC) business incubator are physically located on the UI Oakdale Research Campus in Coralville. Corporate tenants of the Park typically require sustained relationships with UI in the form of access to specialized research facilities, research faculty consultation, opportunity for research collaboration, access to a pool of student interns and part-time employees, opportunity to do business in a research park environment, proximity to intellectual property licensing opportunities, among others. Corporate tenants in the TIC incubator share many requirements of the larger and more established Park companies, but early-stage TIC firms seek cost-effective office and laboratory space and shared office services in an “incubator” environment. New technology ventures often require individual assistance with business planning, establishing UI research relationships, identifying professional service providers, introductions to local and state government agencies and the regional business community, help in identifying potential sources of investment and other funding, communications and other needs on a case-by-case basis. The Park and the TIC incubator are among the major programs by which UI encourages new “spin-offs” from its research and other new technology ventures in the state, and also by which new and growing technology ventures are recruited to the state.

Name of Business or Other Entity Served	City and County where this Project is in Place		University Unit that interacted with business or other entity	Activity
	City	County		
				BUSINESS INCUBATOR TENANTS
AISST, Inc.	Coralville	Johnson	Technology Innovation Center	
Vertex Pharmaceuticals	Coralville	Johnson	Technology Innovation Center	
Digital Artefacts, LLC	Coralville	Johnson	Technology Innovation Center	
Applied Fullerene	Coralville	Johnson	Technology Innovation Center	
Pharmacom Corporation	Coralville	Johnson	Technology Innovation Center	
Innomatix, LLC	Coralville	Johnson	Technology Innovation Center	
Ramaanchar Technologies, Inc.	Coralville	Johnson	Technology Innovation Center	
IAgen, LLC	Coralville	Johnson	Technology Innovation Center	
K2 Technologies	Coralville	Johnson	Technology Innovation Center	
Corridor Business Journal	Coralville	Johnson	Technology Innovation Center	
VIDA Diagnostics	Coralville	Johnson	Technology Innovation Center	
Componica, LLC	Coralville	Johnson	Technology Innovation Center	
Cellular Engineering Tech.	Coralville	Johnson	Technology Innovation Center	
Actual Safety, INC.	Coralville	Johnson	Technology Innovation Center	
Selim Laboratories, Inc.	Coralville	Johnson	Technology Innovation Center	
KemPharm, Inc.	Coralville	Johnson	Technology Innovation Center	
The Thomas Group	Coralville	Johnson	Technology Innovation Center	
Innovative Software Engineering	Coralville	Johnson	Oakdale Research Park/TIC Graduate	
LMS North America	Coralville	Johnson	Oakdale Research Park/TIC Graduate	

Breakthrough to Literacy, Inc.	Coralville	Johnson	Oakdale Research Park/TIC Graduate	OTHER BUSINESS INCUBATOR GRADUATES ACTIVE IN IOWA
Stanley Environmental, Inc.	Coralville	Johnson	Oakdale Research Park	
Vangent, Inc.	Coralville	Johnson	Oakdale Research Park	
Integrated DNA Technologies, Inc.	Coralville	Johnson	Oakdale Research Park/TIC Graduate	
Pearson Educational Measurement	Coralville/Iowa City	Johnson	Oakdale Research Park	
National Genecular Institute	Coralville	Johnson	Oakdale Research Park	
Garvin Consulting Services	North Liberty	Johnson	Technology Innovation Center	
Ecolotree, Inc.	Lowden, North Liberty	Cedar, Johnson	Technology Innovation Center	
Accredo Therapeutics	Iowa City	Johnson	Technology Innovation Center	
Corcoran Communications, Inc.	Iowa City	Johnson	Technology Innovation Center	
Buckle Down Publishing, Inc.	Iowa City	Johnson	Technology Innovation Center	
Bio-Research Products, Inc.	North Liberty	Johnson	Technology Innovation Center	
aJile Systems, Inc.	Cedar Rapids	Linn	Technology Innovation Center	
CompuTerra, Inc.	Cedar Rapids	Linn	Technology Innovation Center	
Entrepreneurial Learning Systems	Iowa City	Johnson	Technology Innovation Center	
Caviforce Technologies, Inc.	Des Moines	Polk	Technology Innovation Center	
Sebesta Blomberg & Assoc., Inc.	Coralville	Johnson	Technology Innovation Center	
HomeSafe	Coralville	Johnson	Technology Innovation Center	
Integrated DNA	Coralville	Johnson	Oakdale Research Park/TIC	

Technologies, Inc. The Patient Education Institute Police Law Institute	Coralville/Iowa City Coralville/North Liberty	Johnson Johnson	Graduate Oakdale Research Park/TIC Graduate Oakdale Research Park/TIC Graduate	
				DEVELOPERS
Myriad Developers, Inc. TMD, L.L.C. Midwest Development & Invest.Corp. Liberty Growth Hunter Companies S & S Developers Gary Bishop Construction Build to Suit Construction Andersen Construction Kevin Hanick Ryan Companies, US NAI Iowa Realty Weitz Companies Southgate Development	Cedar Rapids Solon Fairfield Iowa City Cedar Rapids Iowa City Iowa City Davenport North Liberty Iowa City Cedar Rapids Des Moines Des Moines Iowa City	Linn Johnson Jefferson Johnson Linn Johnson Johnson Scott Johnson Johnson Linn Polk Polk Johnson	Oakdale Research Park Oakdale Research Park Oakdale Research Park Oakdale Research Park Oakdale Research Park Oakdale Research Park Oakdale Research Park Oakdale Research Park Oakdale Research Park Oakdale Research Park Oakdale Research Park Oakdale Research Park Oakdale Research Park Oakdale Research Park	
				PROSPECTIVE TENANTS
Pharmaceutical Firm Dermacia/NGI Iowa Lions Eye Bank Almac Sciences	Champaign-Urbana Newport Beach Iowa City Craigavon City	Illinois California Johnson UK	Oakdale Research Park Oakdale Research Park Oakdale Research Park Oakdale Research Park	

Germanischer Lloyd	Tarrytown	New York	Oakdale Research Park
Financial services data center	Chicago	Illinois	Oakdale Research Park
Noel-Levitz	Iowa City	Johnson	Oakdale Research Park
Stem Cell Sciences	London	UK	Oakdale Research Park
Genesis Bio Ventures	Los Angeles	California	Oakdale Research Park
Atlas Materials	Chicago	Illinois	Oakdale Research Park
Optherion, Inc.	Boston	Mass	Oakdale Research Park
Service to Nonprofits	Iowa City	Johnson	Technology Innovation Center
Magnetic Sensing Devices	Iowa City	Johnson	Technology Innovation Center
Global Reach	Des Moines	Polk	Technology Innovation Center
Human Medicine Start-up	Iowa City	Johnson	Technology Innovation Center
iPig	Iowa City	Johnson	Technology Innovation Center
UIQI2	Iowa City	Johnson	Technology Innovation Center
JL MediTech	Iowa City	Johnson	Technology Innovation Center
Terpenoid Therapeutics	Iowa City	Johnson	Technology Innovation Center
Bio::Neos	Iowa City	Johnson	Technology Innovation Center
Marketing Start-up	Iowa City	Johnson	Technology Innovation Center
Human Medicine Start-up	Iowa City	Johnson	Technology Innovation Center
Human Therapeutics	Iowa City	Johnson	Technology Innovation Center
Software Development	Iowa City	Johnson	Technology Innovation Center
Educational Measurement	Iowa City	Johnson	Technology Innovation Center
Behaviorial Diagnostics	Iowa City	Johnson	Technology Innovation Center
Bioprocessing	Des Moines	Polk	Technology Innovation Center
Medical Device Start-up	Des Moines	Polk	Technology Innovation Center

The University of Iowa Research Foundation

Hands on technical assistance: The UIRF works directly with UI faculty, entrepreneurs, and investors in selecting, evaluating and developing new companies. This includes:

- IP analysis for viability of proposed company products
- IP protection strategies and execution; UIRF fronts the cost of IP protection
- Due diligence on the viability of UI spinout companies
- Business model development for UI spinout companies
- Provide *Entrepreneurs-in-Residence* for high new priority UI companies
- Provide gap funding for highest priority projects
- Facilitation of financial investment in the company
- Licensing to UI spinout companies
- Extensive mentoring and education of faculty in new company formation

Research Parks, etc: UIRF is a source of new companies for the UI research park.

Economic development assistance to Iowa communities: The UIRF worked with groups in Des Moines, Henry, Johnson, Lee, Linn, and Louisa counties in 2007 to forward economic development in those communities.

The John Pappajohn Entrepreneurial Center

Youth Outreach - Jacobson Institute for Youth Entrepreneurship

The Jacobson Institute for Youth Entrepreneurship is a comprehensive program that enriches K-12 students' lives through classroom and practical educational experiences. Created in 2007 through a generous gift from the Richard O. Jacobson Foundation, the Institute is built on three key components – teacher education, development of innovation curricula, and outreach opportunities. The Jacobson Institute provides opportunities for both instruction and practice in entrepreneurship and gives educators the tools they need to teach the “entrepreneurial mindset” – that is, to encourage creativity, innovation, critical thinking, and problem solving, and to prepare students for success in the worlds of business and entrepreneurship.

The Jacobson Institute believes that building entrepreneurial spirit in today's youth is a critical component for sustaining the country's long term economic health. By strengthening their ability to think creatively and providing the tools for understanding the entrepreneurial process, youth are more inclined to consider business ownership as a career. The University of Iowa's youth entrepreneurship initiatives began in fall 2000 as part of the John Pappajohn Entrepreneurial Center's (JPEC) plan to support entrepreneurial engagement at all ages.

Teacher Training

The Jacobson Institute for Youth Entrepreneurship and JPEC work directly with middle school and high school teachers by training them to incorporate entrepreneurship into their classrooms and providing them with ongoing support and curriculum resources throughout the school year. The two-day entrepreneurship seminar provides in-depth training on topics

including opportunity recognition, innovation and creativity, market research and analysis, entrepreneurial finance, and business planning.

Designed to simulate an entrepreneurial-based classroom, the training provides educators with hands-on learning experiences enabling them to leave the training fully equipped to implement entrepreneurial education in their respective classrooms. Coupled with ongoing support from the Jacobson Institute, participants stay abreast of additional training opportunities and are directly connected to the latest entrepreneurial resources.

Open to all teachers interested in or currently teaching entrepreneurial concepts, this program is being taught in various disciplines including, careers, business, science, mathematics, marketing, art, family and consumer sciences, and agriculture.

YouthBizCentral Online Curriculum

Educators incorporating entrepreneurship into their classrooms have access to a customized, innovative, internet-based entrepreneurship curriculum. In addition to downloading PowerPoint presentations, lesson plans, and activities on key entrepreneurial topics, teachers develop a fully customized business planning template geared to meet the specific needs of their classroom. Through completion of the business planning process, students using the YouthBizCentral curriculum learn firsthand the skills necessary for starting and running a successful business.

Through support from the Carver Trust of Muscatine, IA, the Jacobson Institute is currently developing discipline-based modules for math, science and agriculture to better meet the entrepreneurship education needs of these classrooms. Furthermore, teachers nationwide will have the opportunity to enroll in graduate level online entrepreneurship courses offered by the Jacobson Institute in partnership with JPEC.

Summer Camps

Elementary, middle school, and early high school students have the opportunity to participate in entrepreneurship camps held each summer.

With support from Hills Bank and Trust Company and the Richard O. Jacobson Foundation, camp participants hear the entrepreneurial start-up stories from successful entrepreneurs and learn the nuts and bolts of starting a business from UI entrepreneurship faculty.

In addition to networking with other young Iowans interested in starting businesses, camp participants spend the week developing business plans and designing marketing materials. Each day, students apply what they learn to their businesses. At the end of the week, participants in the elementary camp present their business plans to their peers while participants in the middle/high school camp present to a panel of judges in hopes of earning seed capital to get their businesses started.

Outreach

JPEC is committed to providing entrepreneurial education, consulting services, and lectures to the community at large in order to contribute to the growth of existing and emerging businesses. Through the following programs, JPEC impacts the economic development of the region and the state of Iowa.

Conferences & Speaker Series

The John R. Hughes Lecture Series, sponsored by Hills Bank & Trust, Inc., the Sandage Entrepreneurial Speaker Series, sponsored by the Sandage Charitable Trust, and the Community Lectures, a component of the Entrepreneur-in-Residence program, sponsored by the Iowa State Bank & Trust Company, bring successful entrepreneurs to campus to share their experiences with UI students and community members. The Iowa Venture Capital and Entrepreneur Conference and Collegiate Entrepreneurs Iowa Conference provide seminars and networking opportunities for aspiring entrepreneurs, business owners, investors, and students.

The John Pappajohn Entrepreneurial Center

Academic Program

- **Enrollment**
 - Summer 2006: 8 Classes/Sections, 104 Undergraduates, 25 Graduate Students
 - Fall 2006: 25 Classes/Sections, 1098 Undergraduates, 9 Graduate Students
 - Spring 2007: 29 Classes/Sections, 1240 Undergraduates, 55 Graduate Students
- **I-Envision Student Organization**
 - Members 106
 - National / Regional Conferences Attended 4
- **Business & Entrepreneurship Learning Community**
 - Members 38
 - Service Learning Projects Completed 8
 - Community Members Impacted by Service Learning 350

Client Consulting Services

- **Wellmark Venture Capital Fund**
 - 13 applications processed
 - 4 companies funded including one company based in the BELL and one at Oakdale
 - 1 application in process
- **Bedell Entrepreneurship Learning Laboratory**
 - Number of Student Teams 24
 - Total Students Impacted Since May 2004 49

Consulting Projects

- Number of Projects 30
- Industries include: biotech, manufacturing, medical, information technology, ag services, publishing, retail

FastTrac Entrepreneurial Training Program

- **Statewide:**
 - Classes 14
 - Total participants 314
- **Iowa City Area Class:**
 - Classes 2
 - Total participants 60

Youth Programs

- **Summer Camps**
 - Youth Entrepreneur Camp (3rd-5th Grade) 44
 - Jacobson Middle School Camp in Iowa City (6th-8th Grade) 27
 - Jacobson Middle School Camp in Des Moines (6th-8th Grade) 26
- **High School Teacher Training**
 - Teachers 14
 - Locations across Iowa 1
(Des Moines, Mason City, Davenport, Ottumwa)
- **UI Entrepreneurship Day**
 - High School Students 31
- **High School Business Plan Competition**
 - Schools participating 20

Programs, Seminars and Workshops

Date	Event	# of Attendees
7/30-8/4/2006	Okoboji Entrepreneurial Institute	10
8/10/2006	Iowa State Fair – Iowa Centers for Enterprise Booth	N/A
9/11/2006	Fall FastTrac® Class Begins	29
9/15/2006	Sandage Speaker Series: <i>Bob Reed</i>	135
9/19/2006	I-Envision Club Meeting: <i>Mark Warner</i>	100
9/28/2006	Entrepreneurial Ventures Group (EVG): <i>Steven Tonsfeldt, Heller Ehrman LLP</i>	35
10/5/2006	BELL Luncheon: Fall Kick-off	16
10/6/2006	Sandage Speaker Series: <i>Todd Smith</i>	110
10/7/2006	I-Envision Alumni Tailgate	25
10/11/2006	Iowa Venture Capital & Entrepreneur Conference (Des Moines, IA)	71
10/18/2006	Academic Entrepreneurship Workshop	41
10/18/2006	SBIR Conference	45
10/20/2006	Entrepreneur-in-Residence (E-in-R): <i>Pat Cobb</i>	7
10/25/2006	EVG: <i>Dr. Jim Ashton, Ashton Capital Partners</i>	46
10/25/2006	E-in-R: <i>Jim Ashton</i>	5

11/2/2006	E-in-R: <i>Merle Volding</i>	10
11/2/2006	BELL Luncheon	16
11/3/2006	Collegiate Entrepreneurs' Organization National Conference (Chicago, IL)	15
11/3/2006	E-in-R: <i>Merle Volding</i>	9
11/3/2006	E-in-R: <i>Okoboji Community Members / Business Leaders</i>	4
11/8/2006	Academic Entrepreneurship Workshop	25
11/10/2006	Sandage Speaker Series: <i>John Buchanan</i>	89
11/14/2006	Franchise Workshop	20
11/15/2006	SBDC Roundtable Breakfast	60
11/29/2006	E-in-R: <i>John Buchanan</i>	13
11/30/2006	BELL Luncheon	17
11/30/2006	EVG: <i>Dr. Joseph Falkson, Native American Capital</i>	47
1/31/2007	Business Succession Planning Workshop	7
2/1/2007	BELL Round Table Lunch	20
2/7/2007	Academic Entrepreneurship Workshop	28
2/15/2007	EVG: <i>Dr. Matthew Howard, The University of Iowa</i>	59
2/15/2007	Business Succession Planning Workshop	64
2/16/2007	Regional Pappajohn New Venture Business Plan Competition	10
2/19/2007	Spring FastTrac® Class Begins	36
2/20/2007	I-Envision Club Hosts Guest Speaker	35
2/22/2007	BELL Round Table Lunch	20
2/27/2007	Be Your Own Boss Conference	12
2/28/2007	Sandage Speaker Series: <i>Tanna Frederick</i>	106
2/28/2007	<i>Hollywood Dreams</i> Movie Screening	55
3/7/2007	Academic Entrepreneurship Workshop	20
3/8/2007	Franchise Workshop	7
3/29/2007	Statewide Pappajohn New Venture Business Plan Competition	4
3/29/2007	EVG: <i>Timothy Bechen, Kenyon & Kenyon LLP</i>	82
3/30/2007	Statewide Collegiate Entrepreneurs' Iowa Conference (CEIC) (Des Moines)	72
4/1/2007	Students in Free Enterprise (SIFE) National Conference (Minneapolis, MN)	20
4/6/2007	Sandage Speaker Series: <i>Shannon Latham</i>	70
4/12/2007	ISB&T Community Lecture: <i>Bruce Rastetter</i>	275
4/25/2007	Volding Business Plan Competition	20
4/26/2007	E-in-R: <i>Merle Volding</i>	8
4/26/2007	EVG: <i>Bill Van Sant, Paladin Brands</i>	75
4/27/2007	I-Envision Hensley Charity Golf Invitational	125
	TOTAL PARTICIPANTS	2,220

Small Business Development Center

The Small Business Development Center (SBDC) at The University of Iowa offers one-stop assistance to current and prospective small business owners by providing high quality, one-on-one counseling that is tailored to the needs of individual clients. The SBDC conducts research, counsels, and trains business owners in management, financing, and operating small businesses, and provides comprehensive information services and access to experts in a variety of fields. Educational programs are offered on topics that include taxes, accounting systems, and business planning. It also offers a wide range of training seminars concerning business skills and issues, and assists small businesses in securing Small Business Administration backed loans.

Office of Corporate Partnerships

The Office of Corporate Partnerships (OCP) serves as a primary contact for corporations, state industry trade associations and economic developers interested in collaborating with the University of Iowa. This office acts on behalf of the business community as a connector to a wide array of resources and acts as a facilitator to expedite the process of discovering and making use of some or all of the UI's resources such as business assistance, research expertise, facilities, sponsored research, continuing education and technology transfer. The OCP assists the Iowa Department of Economic Development and other state industry trade organizations in marketing the resources of the state of Iowa. In FY07, the OCP completed (45) on-site visits to Iowa companies and economic development groups; organized and participated in (3) statewide business and community forums; and facilitated (9) campus visits of national and international companies and state economic developers. The OCP identified technical needs for several companies and worked with University college liaisons to address those needs.

The Office of Corporate Partnerships completed 37 visits to Iowa companies, providing information about University of Iowa resources that may be helpful to the company. These included:

- Biotechnology Companies: Barnstead International, Embria Health Sciences, Eurofins Scientific, Feed Energy, FLI Retro Fits, Integrated DNA, JMI Labs, Protek, Oral-B, Tjaden Bioscience, Trans Ova Genetics,
- Advanced Manufacturing Companies: AY McDonald, Allsteel, Emerson, Flint Cliff Manufacturing, Heatilator, Loparex, Newton Manufacturing, Momentus Golf, Sonoco Corrflex,
- Information Solutions/Finance Companies: Bankers Trust; Compleware, Crystal Group; Donatech, Fakespace, Great River Technologies, Innovative Software Engineering, Lee Enterprise, Marsh-McLennan, McGraw Hill, MetroGroup, Northwestern Mutual Financial, Systems Unlimited, The Mudd Group, Tru-Art, Von Maur, Two Rivers & Associates.

The Office of Corporate Partnerships participated in (3) statewide business and community forums in Des Moines, Sioux City and Mt. Pleasant. In addition, the OCP arranged campus visits for the Iowa Department of Economic Development's International Department, for approximately 7 companies interested in research collaborations with the Carver College of

Medicine and the pharmaceutical capabilities of the University's Center for Biocatalysis and Bioprocessing, Division of Pharmaceutical Services, and Center for Advanced Drug Development. Another two campus visits were arranged for economic development agencies.

4. Collaboration for economic development

Please briefly describe two or three examples of major economic development collaborative efforts with other entities such as Regent universities, Iowa community colleges, the Iowa Department of Economic Development, Iowa Workforce Development, other state agencies, other non-governmental organizations in the state.

The University of Iowa Research Foundation

ICAD (Iowa City Area Development Group): UIRF Executive Director Pam York is on the Board of Directors of ICAD (Johnson County). UIRF committed \$75K to ICAD's fund raising campaign in FY06, and made funding contingent upon ICAD adding an entrepreneurial effort to their mission, which they subsequently did in FY07.

SIVF (Southeast Iowa Venture Fund): Public and private sector individuals in the southeast Iowa counties of Des Moines, Lee, Henry and Louisa are creating a joint economic development program. York has been involved with this group for some time, and helped them to formulate a plan to utilize a \$175K business accelerator grant received from IDED by coupling this with a venture fund. York, with the intention of forwarding an entrepreneurial focus within this region, also participated in the *Angelou Economics* market analysis of this region, which was designed to help the group identify new industries and economic thrusts.

Iowa entrepreneurs and investors: UIRF regularly met with the venture firms receiving investment capital from the Iowa Fund of Funds- *Prolog Ventures* (St Louis), *Village Ventures* (Denver) to discuss deal flow and specific companies. UIRF also recruited the following people to join the UIRF Board of Directors in FY06, and interacted with these people on new ventures formation processes and specific companies in FY07:

- Curt Nelson, Entrepreneurial Development Center (Linn County)
- Matt Kinley, Equity Dynamics (Polk County)
- Dick Schwab, Woodworks, formerly Pearson (Johnson County)
- Jan Schuiteman, Trans Ova Genetics (Sioux County)

The John Pappajohn Entrepreneurial Center

JPEC collaborates with a wide range of partners in Iowa to impact the Iowa's economic development. Examples are below.

- **Iowa Venture Capital and Entrepreneurship Conference** JPEC is a major sponsor and organizer of the Iowa Venture Capital and Entrepreneurship Conference. JPEC teams with the Iowa Department of Economic Development, other Pappajohn Centers around the state, and Equity Dynamics to put this annual conference together.
- **FastTrac Entrepreneurial Training Program** JPEC has partnered with the Iowa Community College system and the University of Northern Iowa to deliver statewide the nationally acclaimed FastTrac® entrepreneurial training programs of the Ewing Marion Kauffman Foundation of Kansas City. The initiative prepares aspiring

entrepreneurs to launch new ventures and existing companies to grow their businesses. Since the inception of the partnership in fall 1997, over 3,000 Iowans have completed the entrepreneurial training programs.

- **Wellmark Venture Capital Fund** JPEC is the regional administrator of the Wellmark Venture Capital Fund, a \$5 million fund created by Blue Cross and Blue Shield of Iowa to support the creation and growth of new businesses throughout the state. JPEC screens applicants, performs due diligence, evaluates business concepts, and assists applicants with their business plans. JPEC partners with area angel investors, equity fund managers, lenders, the Iowa Department of Economic Development, and the Small Business Administration to help business owners secure additional venture funding.
- **Secondary Teacher Training** The Jacobson Institute for Youth Entrepreneurship and JPEC partner with state, regional and local educational agencies to offer entrepreneurship training to educators around the state of Iowa. Introductory and advanced entrepreneurship training programs are offered.
- **Be Your Own Boss Entrepreneurship Summit** – The Jacobson Institute for Youth Entrepreneurship, UI JPEC, UI Office of Corporate Partnerships, UI I-Envision Student Organization, Community Vitality Center of Ames and the Iowa Workplace Learning Connection, jointly sponsor this one-day entrepreneurial conference open to Iowa high school students participating in the Jacobson Institute’s Statewide Business Plan Competition. Held in conjunction with the Collegiate Entrepreneurs Iowa Conference, participants network with like-minded peers, listen to learning entrepreneurs and learn what it is like to start and run your own business.
- **Community College Partnerships** – JPEC has designed a distance education program which will allow students of several community colleges (**Iowa Western Community College, Western Iowa Tech Community College, Indian Hills Community College, and Iowa Lakes Community College**) to earn a Certificate in Entrepreneurial Studies as part of their degree programs. The partnerships with these community colleges will also allow JPEC to bring entrepreneurship education and business support to rural Iowa and will help Iowans from around the state more easily access the business and economic development resources of the UI.
- **Collegiate Entrepreneurs Iowa Conference** – A partnership among the Pappajohn centers around the state and the national Collegiate Entrepreneurs Organization to sponsor a day long entrepreneurial conference of networking, brainstorming, listening to speakers and education open to any college student in the state and region.
- **John Pappajohn Business Plan Competitions** – JPEC partners with the other Pappajohn centers around the state to offer statewide business plan competitions for college students as well as residents of Iowa.
- **Okoboji Entrepreneurial Institute** – JPEC partners with the Iowa Board of Regents, other Pappajohn centers around the state, Iowa Department of Economic Development, and the Iowa Lakes Corridor Development Corporation to offer the Okoboji Entrepreneurial Institute, a week-long immersion in entrepreneurship, designed to instill the entrepreneurial mindset in the state of Iowa’s undergraduate students.
- **Committee/Organization Involvement**
Iowa Business Council Capital Formation Hot Team

Iowa First Capital Fund Board
 Planning Committee for the Iowa Venture Capital Conference
 United States Association for Small Business and Entrepreneurship
 National Consortium of Entrepreneurship Centers
 Collegiate Entrepreneurs Organization
 National Collegiate Inventors and Innovators Alliance
 Students in Free Enterprise
 Department of Education Entrepreneurship Program Management Committee
 Planning Committee for the Collegiate Entrepreneurs' Iowa Conference
 Iowa City Area Chamber of Commerce Economic Development Committee
 The Institute of Business Appraisers
 American Institute of Certified Public Accountants
 Institute of Management Accountants
 Professional Developers of Iowa
 Association of Small Business Development Centers
 Academy of Management
 Small Business Educational & Entrepreneurial Development Task Force
 Iowa Prolog Advisory Board
 Iowa Association of Business and Industry
 Iowa Business Educators Association
 Department of Education Business Program Management Committee
 Department of Education Alternative Schools and Programs
 Iowa DECA
 Neighborhood Center of Johnson County
 Workplace Learning Connection
 Community Vitality Center

Small Business Development Center

SBDC's are required by contract to keep their client list confidential. Summary data is below:

- Total Clients Served 222
(672 Counseling Sessions)
- Business Startups 50
- Hours dedicated to clients 1,186
- Client loans \$3.55 million
- Estimated jobs created by SBDC Clients 117

Breakdown by county:

5 Unknown
 1 Benton
 3 Cedar
 1 Clinton
 6 Iowa

169	Johnson
2	Keokuk
1	Lee
8	Linn
2	Louisa
1	Marion
8	Muscatine
4	Poweshiek
<u>11</u>	Washington
222	

Office of Corporate Partnerships

The Office of Corporate Partnerships collaborates with a wide range of organizations and entities. Some highlights of OCP collaboration include the following:

- **Iowa Biotechnology Association** – The director serves as a designate member (for VP Meredith Hay) on the IBA Board of Directors.
- **Iowa Careers Consortium** – The director serves on the ICC advisory board. The ICC is a public-private organization that markets career and life style opportunities in the State of Iowa.
- **Iowa Rural Development Council Steering Committee** – The director serves on the IRDC Steering Committee, which meets monthly and conducts quarterly forums across the state. The committee is made up of federal and state agencies, including the Regent Universities.
- **Regents Road Show (PDI Conference)** – Took the lead in organizing the planning and marketing for the 2007 Iowa Public Universities Partnership road show with ISU and UNI.
- **BIO 2007** - Promoted the University of Iowa at the Biotechnology Industry Organization Annual Meeting along with a delegation of 60 other biotechnology companies, economic developers and Regent Universities.
- **2007 Prometheus Awards** – On behalf of the IOWA Centers for Enterprise, prepared 21 nominations to the Technology Association of Iowa to recognize individuals, projects and companies for excellence in leadership and innovation in technology. Four nominations connected to the University of Iowa were honored at the awards celebration.

Broad Efforts

1. **Business Recruitment** - During FY07 the UI engaged in the active recruitment of new businesses to Iowa. UI participants included senior administrators, faculty and scientific research staff and professional staff of economic development/technology transfer units. Recruitment of out-of-state and international companies were collaborative efforts with the Iowa Department of Economic Development, Iowa City Area Development Group and Priority One (Cedar Rapids) development professionals.

2. **State Biotechnology Marketing Initiatives** - For more than a decade UI has been a partner with the Iowa Department of Economic Development and ISU in a major, sustained, strategic State presence at the annual international convention of the Biotechnology Industry Organization. In recent years they have been joined by UNI, regional economic development professionals and the Iowa Biotechnology Association to give Iowa an even stronger marketing presence at the world's leading biotech industry conference. Over the years, UI has been represented by the Office of Corporate Partnerships, Oakdale Research Park, Center for Biocatalysis and Bioprocessing, Division of Pharmaceutical Service and College of Pharmacy. UI spin off companies including Integrated DNA Technologies, Bio:Neos, VIDA Diagnostics and Cellular Engineering Technologies have also participated. UI spin off companies including Integrated DNA Technologies and EnzyMed have also participated. UI annually participates in the State marketing initiative at BIO. The State's considerable investment in sustaining its BIO presence since the early 1990s gives Iowa international visibility in the biotechnology industry.

5. Please provide the following information about Grow Iowa Values Fund projects for FY 2007:

- a. **Identify and briefly describe each project or initiative which received GIVF funding in FY 2007 including information on outcomes and progress made**
- b. **Identify metrics which were used to measure outcomes for each project and report progress on each metric for FY 2007.**
- c. **Provide a description of the sources of the matching institutional dollars for each GIVF-funded project**

Using The University of Iowa allocation of Grow Iowa Values Funds, the Office of the Vice President for Research established and implemented a program that incorporates two distinct and interdependent phases:

- **I-START** (first phase of investment) is targeted toward **immediate or short term needs** designed to directly **facilitate university-private sector partnerships** in entrepreneurship and the **creation of new companies and jobs in Iowa.**
- **I-GROW**(second phase) is designed to address the **middle to long term commitments** needed to **strengthen the University's capacity to promote and sustain high tech entrepreneurship** in the region and **build new networks** of technical-financial-business capabilities that will **stimulate and sustain the growth of new companies and industries** that provide high paying jobs for the citizens of Iowa.

VP for Research

GIVF Funds: \$ 178,255; match \$178,255 from Vice President for Research Enrichment Fund – Total of \$356,510

These funds were used for salary and fringe benefits of a new Associate Vice President for Research: Economic Development and for start up equipment, travel and office expenses, utilities, memberships for this new office and position.

These funds allowed the hiring of a seasoned (25+ years experience) technology transfer and economic development professional to lead the IOWA Centers for Enterprise and UI's economic development initiatives.

Office of Corporate Partnerships

GIVF Funds: \$ 83,506, match \$ 83,506 from Vice President for Research Enrichment Fund. Total of \$167,012.

These funds were used for salaries and fringe benefits of the Office of Corporate Partnerships (OCP) Director and one staff person, office supplies and operating expenses, travel, marketing materials, memberships and other expenses of the OCP.

In FY07, corporate outreach included 37 visits to Iowa companies and visits to 8 economic development groups, 9 campus visits, 3 business and community forums. This year the IOWA Centers, via the OCP hosted events for the Professional Developers of Iowa annual meeting and the OCP produced and distributed widely throughout Iowa marketing materials describing the IOWA Centers and its programs and services.

Technology Innovation Center and Oakdale Research Park

GIVF Funds: \$710,750; match \$700,00 from Ryan Companies upfront payment and \$10,750 from Vice President for Research Enrichment Fund. Total of \$1,421,500 .

The master planning consultant, Sasaki Associates, completed its report for a new blended master plan for the Oakdale Research Park and Oakdale Research Campus. These recommendations are already reflected in four new and planned construction projects. The University also hired a consultant firm to assist in preparing a signage plan, and new covenants and architectural guidelines are being developed by RDG IA, Inc. Finally, we have retained a firm to assist us in preparing a marketing plan for the Research Park and BioVentures Center/Technology Innovation Center.

The remainder of the funds are to be used to retain an architect and developer to design and build a 35,000 sf BioVentures Center. The building will be owned by the developer and operated by the University as a life sciences business incubator. Total cost of the building when constructed will be approximately \$8 million. The University is paying certain upfront costs so that the lease price back to the university will be low enough to allow start-up company tenants to afford the sublease cost. (The University will sublease the spaces to incubator tenants.) Design of the building is essentially complete. Construction will begin fall 2007 and be completed fall 2008.

John Pappajohn Entrepreneurial Center

GIVF Funds: 93,145 match \$93,145 from Vice President for Research Enrichment Funds and the Tippie College of Business. Total of \$186,291.

These funds were used by the John Pappajohn Entrepreneurial Center to support the hiring of graduate students and partially to support the hiring of a Faculty entrepreneurship coordinator. The results of this investment lie in three major areas including the JPEC Entrepreneurial Ventures Group (EVG) Speaker Series, the JPEC Academic Entrepreneurship Workshops and JPEC Consultative Services

I-GROW – Subramanian

GIVF Funds: \$325,000; match \$325,000 from Biosciences Start Up Funds. Total project \$650,000.

GIVF I-GROW funds were used as part of a faculty start up package that allowed the University to attract Dr. Venkiteswaren (Mani) Subramanian to serve as director of the UI Center for Biocatalysis and Bioprocessing (CBB). Prior to coming to UI, Dr. Subramanian was Global R&D Director of Biotechnology, Bioprocessing, and Bioinformatics for Dow Chemical Company. He brings 24 years of industrial experience and an entrepreneurial approach to the University. This start-up package was essential to attract this highly entrepreneurial faculty member to the University of Iowa.

FUNDS Committed to Projects (no expenditures from FY07)

University of Iowa Research Foundation (UIRF)

GIVF Funds: \$310,000; match \$310,000 from UIRF Funds. Total project of \$620,000.

These funds have been reallocated for expenditures in FY08. We anticipate the funds will be used: (1) to engage a consulting company to assist the UIRF in managing its backlog of invention disclosures, (2) to fund additional gap funding proposals, and (3) to engage CEOs-in-Residence to assist the UIRF in building venture capital fundable spin-out companies.

Arnold Seed

GIVF Funds: \$8,494; match \$8,494 from Vice President for Research Enrichment Funds (forthcoming). Total project of \$16,988.

Mark Arnold, Department of Chemistry (ASL Analytic Inc.) tested and integrated a new proprietary component with an existing large lab instrument as a key milestone toward creating a small, cost-effective portable instrument to monitor glucose urea and lactate for

critically ill patients. ASL has raised \$250K in financing, hired one employee and obtained a prestigious NIH \$1M grant to develop a related product.

Abramoff Seed

GIVF Funds: \$14,171; match \$14,172 from external grants and contracts. Total project of \$28,343.

Michael Abramoff, Department of Ophthalmology (iOptics, Inc.) is developing a low-cost, high resolution camera for diagnosing eye diseases including macular degeneration and diabetic retinopathy. He completed two prototype cameras and an custom USB interface that allows the camera to be portable, evaluated its ability to detect lesions and designed the human clinical trials to demonstrate diagnostic capability. An MBA student project was done in parallel to examine market factors impacting the introduction and adoption of such a camera. The intention is to develop a company that provides products and/or services for diagnosing eye disease. These funds continue the program of support started with FY06 GIVF funds.

Johna Leddy

GIVF Funds: \$12,500; match \$12,500 from external grants and contracts. Total project of \$25,000.

These funds were used to support work by a faculty member (Dr. Johna Leddy) to develop further a non-invasive glucose monitoring device. This device, if successful, will address a very large market need. This is the second year of a two-year funding.

Support for Additional IOWA Centers for Enterprise Activities (these are the funds that are not allocated yet)

Anticipated - GIVF Funds: \$189,178; match \$189,178 from various sources, including, Vice President for Research Enrichment Funds, JPEC Foundation Accounts, Oakdale Research Park Reserves and External Grants and Contracts. Total project of \$378,356.

6. Please provide the following information about Battelle-funded projects for FY 2007:

- a. Identify and briefly describe each project or initiative which received Battelle funding in FY 2007 including information on outcomes or progress made**
- b. Identify metrics which were used to measure outcomes for each project and report progress on each metric for FY 2007.**

Battelle Program Summary	Description of Program	Funding Amount	Allocation to Projects	FY07 Expenditures (July 1, 2006 – June 30, 2007)	Progress through June 30, 2007
Infrastructure	To create a joint venture partnership between The University of Iowa, regional economic development leaders and the private sector to expand and develop a new Technology Incubation Center and Research Park on the Oakdale Research Campus.	\$2,720,000	New TIC \$1,320,000	\$ 50,792	Design of a new BioVentures Center is complete. Construction to begin in the fall of 2007.
			Myriad Purchase \$1,300,000	\$1,300,000	Building at Myriad Plaza on the Oakdale Research Park was purchased and renovated. This building allowed the University to provide space for a California based start-up company.
			Myriad Fit-out \$100,000	\$ 0	The purchased Myriad building was renovated to accommodate the California based start up company. Funding to be re-budgeted to the new UI BioVentures Center to begin construction fall 2007.

Battelle Program	Description of Program	Funding Amount	Allocation to Projects	Funding Spent To Date	Progress through June 30, 2007
Endowment	Description: To create an endowed professor-and/or entrepreneur-in-residence program to attract world-class, entrepreneurial talent in the core platform areas.	\$2,000,000	Long term Investment Pool \$2,000,000	\$2,000,000	One endowed professor (\$100K/year for three years) position was filled allowing us to retain one of our most prolific and entrepreneurial professors (July 1, 2007). Without this endowed professorship, we would have lost him to a University on the East coast. This professor recently obtained a \$15M NIH grant and is affiliated with Ophtherion, which also recently closed on a \$30M venture capital investment. Funding was \$50K from interest income and \$50K match from academic department.

Battelle Program Summary	Description of Program	Funding Amount	Allocation to Projects	FY07 Expenditures (July 1, 2006 – June 30, 2007)	Progress through June 30, 2007
Core Platforms	Description: To provide financial assistance in the form of grants to accelerate the transformation of new and ongoing research and development initiatives in the core platform areas into	\$3,690,000	Myriad Fit-out \$1,090,000	\$1,059,368	<ul style="list-style-type: none"> Renovation of space in Myriad Building completed. NGI moved into this space in early 2007. Upon vacating this space for space in a new building, the UI Center for Advanced Drug Development will occupy the Myriad Building space.
			8 Core Platforms \$ 900,000	\$ 442,574	See pages 33-35 for detail

	commercial opportunities.		\$1,700,000 Phase II funding of 8 Core Platforms	NA	Phase II funding will be allocated once review of initial progress on individual projects is completed.
--	---------------------------	--	---	----	---

Core Platform PI Details	Title of Battelle Proposal	Battelle Funds Awarded	FY07 Expenditures (July 1, 2006 – June 30, 2007)	Platform	Progress through June 30, 2007
Abdel-Malek Team	Commercialization of Santos, a Human Simulation Environment	\$370,000	\$12,641	IT, AM	<ul style="list-style-type: none"> • A national search was launched to recruit a professional software engineer to lead the production effort. • Several releases of pre-beta software versions have been installed at our industry partners facilities and all are being used. <p>An entrepreneur-in-residence has assisted in evaluating the business opportunity.</p>
Leno Team	Designing Transgenic Cells for Biomedical Applications	\$400,000	\$115,453	Bio-genetics-transgenic cell lines	<ul style="list-style-type: none"> • Hired Research Assistant for the funded position. Currently interviewing candidates. • Purchasing and setting up project-related equipment. • Establishing assays for TNFα and Luc reporter expression in virus-infected HeLa cells. • Developing business model for <i>RepGenix</i>. • Discussing business opportunities with potential partners, i.e., Trans Ova Genetics and iPig, and customers, e.g., NuPotential, LLC – Baton Rouge. • Ten primary porcine fibroblasts with high cloning potential were established. • Initial AAV transduction studies were conducted. • An Apoe AAV targeting vector is currently under construction. <p>Preparing a STTR grant application in collaboration with <i>RepGenix</i> to fund production of targeted transgenic cells.</p>
O'Doriso Team	Development of Peptides for	\$400,000	\$21,941	Bio-imaging &	<ul style="list-style-type: none"> • Identified three peptides to use as first candidate drugs. • Submitted an NIH grant to support the preclinical studies.

	Diagnosis and Therapy of Cancer			drug discovery	<ul style="list-style-type: none"> • Developed specifications for the synthesizer to be used in the research and for GMP production. • Identified person to operate the synthesizer. <p>Identified suitable space to house the synthesizer and operate under GMP conditions</p>
Shields	Iowa Neuro-Musculoskeletal Therapeutic Training System: Impact on Commercialization in Iowa	\$130,000	\$1,708	Bio-therapeutic/medical device	<ul style="list-style-type: none"> • Most progress to date was made using leverage funds. • Developed the computer drawings (CAD) of a hinged-type knee brace that will attach to the leg below and above the knee. This has been manufactured and is operational. • Designed a brake power controller in the inventor software. Included in this design is a controller circuit that uses modern surface mount components. • Designed all of the algorithms, and are searching for the key engineer/programmer to write the new software for this project. • Identified 2 Iowa companies interested in manufacturing the final product. • With SENSR in Elkader, IA have developed a plan to advance the technology and transfer to the commercial market.
Van Beek Team	Iowa Imaging-Based Multi-center Trials Organization	\$400,000	\$87,212	IT; Bio-imaging	<ul style="list-style-type: none"> • Established a solid database that can be used for clinical trials. Hired 1 FTE (two people; both IT programmers) to work with VIDA to explore pros and cons of commercially available or free software versus an in-house developed archiving/reporting database. • Establishing additional partnerships with Compleware in North Liberty. • Established dedicated office space at Technology Innovation Center, close to VIDA Diagnostics. • Established regulatory affairs position, advertised the position, and identified several potential candidates • On track for receiving a first VIDA Diagnostics trial through a contract with GlaxoSmithKline.
Welsh	Porcine Models of Human Disease	\$400,000	\$55,658	Bio-genetics-animal models	<ul style="list-style-type: none"> • Produced cell line with appropriate Cystic Fibrosis (CF) genetic profile to use these cells to generate a “knock out” CF pig. • Introduced the most common human CF mutation into pig cells that were then used to clone the first ever “knock in” pigs • Significant progress made in adopting clinical methods for CF pigs to establish baseline levels in normal animals.

Griffith Team	Development of AD5-Trail as a Cancer Therapeutic	\$400,000	\$108,560	Bio-genetics-cancer therapy	<ul style="list-style-type: none"> • Commenced testing on the next lot of clinical vector. This testing will be performed by AppTec. • Communicated with Cedar Croft Capital regarding possible financial support for company development. • Have completed human testing in 1st three dose levels (9 pts.) • Contracted several companies about further development and licensing.
Weiss Team	Design and Testing of Novel Toll-like Receptor 4-Directed Immunomodulators	\$100,000	\$39,401	Bio- drug delivery, genomics	<ul style="list-style-type: none"> • Using leveraged NIH funds, prepared for animal experiments that will soon follow by completing the following: prepared and purified needed amounts of wild-type and variant endotoxin:MD-2 complexes, tested <i>in vitro</i> for quality control characterization and prepared chemically cross-linked complexes. • Immunogen and immunization experiments to begin in February and March.

7. Optional: If desired, please include observations regarding:

- a. Emerging trends in university economic development and technology transfer**
- b. Availability of startup and venture capital for technology entrepreneurs**
- c. Suggestions for new programs or activities that could further enhance the impact of university technology transfer and service on creation of jobs and wealth in Iowa.**

a. Emerging Trends- There is a national trend toward more university involvement in economic development. More venture and angel investors are engaging with university tech transfer groups. National conferences held by early stage investors and conferences held by university tech transfer groups are merging. Experienced business and new venture development professionals are becoming common place in university tech transfer organizations, and university tech transfer conferences are presenting relevant business and new venture sessions. Successful university research parks have vibrant laboratory-based business incubators that provide both facilities and active business support programs for their start-up companies. Most successful university business incubators are constructed debt free, or close to it. Graduate space for incubator companies – sometimes called accelerator space – is becoming a mainstream program to support companies as they graduate from life science and technology incubators.

b. Available capital- There is an excess of capital for good business concepts. Iowa entrepreneurs/companies that have difficulty raising money tend to lack the criteria that venture investors seek, such as addressing a large market opportunity, and/or an experienced management team. This situation is gradually improving in Iowa. UIRF is regularly sought out by top tier national venture capital firms to evaluate opportunities in our portfolio, and 3 companies were formed with such groups in the past 18 months.

c. New Programs- The top priority is finding people with highly specific high tech market sector experience and new high tech company formation experience.