Governing Iowa's public universities and special schools

University of Iowa
Iowa State University
University of Northern Iowa
Iowa School for the Deaf
Iowa Braille and Sight Saving School
Lakeside Lab Regents Resource Center
Quad-Cities Graduate Center
Southwest Iowa Regents Resource Center
Tri-State Graduate Center

BOARD OF REGENTS
STATE OF IOWA

January 14, 2011

Michael E. Marshall
Secretary of the Senate
State Capitol Building
Des Moines IA 50319

Charles Smithson
Chief Clerk of the House
State Capitol Building
Des Moines IA 50319

Glen Dickinson, Director
Legislative Services Agency
State Capitol Building
Des Moines IA 50319

Re: Grow Iowa Values Funding (GIVF)

Dear Members of the Iowa General Assembly:

Pursuant to Iowa Code §15G.111(2), the enclosed annual report includes information from the University of Iowa, Iowa State University, the University of Northern Iowa, and Private Universities and Colleges for FY 2009, FY 2010, and FY 2011 (year-to-date) on revenues and expenditures related to GIVF appropriations.

If there are any questions concerning this report, please do not hesitate to contact us.

Sincerely,

Robert Donley

H:\BF\Legislative\2011 Session\GIVF reports\GA_GIVF011411.docm
Enclosure
cc: Legislative Liaisons
Legislative Log

University of Iowa - as of December 31, 2010
Grow Iowa Values Fund Appropriations

1	Phase I: ISTART - Iowa Startup and Entrepreneurship Fund	FY 2009 GIVF Appropriation		$1,925,000	Board of Regents approved August 2008
2	Phase I: IGROW - Iowa Growth and Development Fund		$1,520,000	($389,283)	Budget Reduction
			$0	$1,535,717	Adjusted FY 2009 Budget

University of Iowa	Project	List of all FY 2009 Revenue Sources	Revenue Dollars for FY 2009	Amount of FY 2009 State Appropriations Expended as of 12/31/2010
1	**Phase I: ISTART - Iowa Startup and Entrepreneurship Fund**	FY 2009 State Appropriations (GIVF)	$1,535,717	$1,535,717
		FY 2009 Matching Funds (Other)	$1,535,717	$1,535,717
Description of Project	The I-START program is targeted at facilitating university-private sector partnerships in entrepreneurship and the creation of new companies and jobs in Iowa. Individual projects were developed that support commercialization projects based on the University's or partner's intellectual property, and to provide support for the economic development infrastructure			
Anticipated End Results	Accelerate commercialization of UI intellectual property through company formation by providing support through "proof of concept" funding, CEO and EIR in-residence programs, JPEC and ICE programs, and new life sciences business incubator, etc.			
Results achieved to Date/Plans	Results include: • Increased collaboration with IDED in support of IDED programs in recruitment of companies to Iowa and support of new company formation in Iowa. Examples include IDED GIVF funds ($1M) awarded to the UI in support of its collaboration with Exemplar Genetics to develop porcine models of human disease as a business enterprise, and assistance provided by UI to Terpenoid Therapeutics in obtaining IDED Demonstration funds. • Design and construction of new SUI life sciences incubator is completed. The facility contains 20 laboratories and 16 offices for life science start-up companies. FY 2009 FUNDS • GIVF Seed Grant Program using FY09 funds was announced with a total budget of $300K. The funds are to support the development of innovations with commercial potential, with the result that more UI technology reaches the marketplace as the foundation for new Iowa companies and/or the growth of existing Iowa companies. The funding is intended to support a wide-range of stages in technology development, from initial concept (prior to intellectual property disclosure), to proof of concept, to licensing and commercialization. A call from proposals is located at http://research.uiowa.edu/ifi//index.php?get=givfseedgrantguidelines. There were 20 proposals submitted from this call. • With the assistance of Entrepreneur in Residences, reviewed more than 200 technologies for top business development candidates. UIRF vetted 16 company concepts and identified top company candidates (6 emerged). • Operational support for John Pappajohn Entrepreneurial Center to provide direct entrepreneurial services to faculty, staff, students and community members. A highlight of JPEC accomplishments - 1) 59 people participated in FastTrac® Entrepreneurial Training programs in Iowa City resulting in an estimated 10 business start-ups and 88 jobs created; 2) 14 applications processed for Wellmark VC Funds resulting in 3 companies funded; 3)51 student teams enrolled in Bedell Learning Lab since 2004 (27 in FY09) resulting in 11 new business start-ups; and 4) Elevator pitches competiive completed. • Funding for SUI life sciences incubator - Six companies (Vertex, Cellular Engineering Technologies, Terpenoid Therapeutics, ASL Analytical, KemPharm and Exemplar Genetics) occupy 9 wet labs and 9 dry labs/offices in BVC. Three of these received GIVF or Battelle funding over the past 4 years. • Start Up funds for Dr. Mani Subramanian (faculty entrepreneur director at CBB). CBB accomplishments included 1) $2.78M in revenues in FY09; 2) CBB supported work of other GIVF/Battelle projects: Weiss lab, Optherion, ASL Analytical, O'Dorisio lab; and 3) CBB served 35 clients in FY09, including 4 in Iowa and 2 from the UI. • SBDC served 233 clients, assisted 29 business start-ups, and assisted clients in obtaining $2.3M in SBA loans. • Operational funds for BioVentures Center including new marketing plans and new interactive website launched for SUI Research Park and staff support. • Seed funding for an ISU and SUI collaboration to develop novel vaccines and therapies for veterinary and human infectious diseases. Year 1 - deliverables were focused on developing a viable material that meets structural and biologic criteria to be used to fill cartilage matrix cracking. Year 2 - testing was carried out mainly at the UI in a series of in vitro tests using bovine osteochondral specimens.			

University of Iowa	Project	List of all FY 2009 Revenue Sources	Revenue Dollars for FY 2009	Amount of FY 2009 State Appropriations Expended as of 12/31/2010
2	**Phase I: IGROW - Iowa Growth and Development Fund**	FY 2009 State Appropriations (GIVF)	$0	$0
		FY 2009 Matching Funds (Other)	$0	$0
Description of Project	The IGROW program is designed to address middle to long-term commitments needed to strengthen the University's capacity to promote and sustain high tech entrepreneurship and to promote research and technology-driven economic development in Iowa. These funds will also be used to meet USDA standards necessary to produce supplies of drug materials used in human clinical trials.			
Anticipated End Results	The University directs funds to promote high-tech entrepreneurship and build new networks among people with technical, financial, and business expertise and sustain the growth of industries that provide high-paying jobs for the citizens of Iowa. For example, fund dollars would help to recruit entrepreneurial faculty who plan to operate new companies in Iowa.			
Results achieved to Date/Plans	FY 2009 : IGROW was reduced to zero due to the GIVF budget reduction in Fall 2008.			

University of Iowa - as of December 31, 2010
Grow Iowa Values Fund Appropriations

$1,732,500 Board of Regents approved August 2009

		FY 2010 GIVF Appropriation	Revised 2010 Budget
1	Support new company formation through University of Iowa Research Foundation	$450,000	$499,000
2	Support operational and personnel costs of key economic development areas	$357,000	$288,000
3	Fund expenses at the new BioVentures Building	$300,000	$300,000
4	Support of the Office of Vice President of Research	$194,000	$214,000
5	Support training, consultation and outreach for Iowa entrepreneurs	$190,000	$190,000
6	Expand the Center for Biocatalysis & Bioprocessing into a state-of-the-art Bioprocessing Center	$241,500	$241,500
		$1,732,500	$1,732,500

University of Iowa	Project	List of all FY 2010 Revenue Sources	Revenue Dollars for FY 2010	Amount of FY 2010 State Appropriations Expended as of 12/31/2010			
	Support new company formation through University of Iowa Research Foundation	FY 2010 State Appropriations (GIVF)	$499,000	$237,089			
		FY 2010 Matching Funds (Other)	$499,000	$240,000			
Description of Project	The University of Iowa Research Foundation will use funds to support new company formation by funding technology proof of concept projects, external entrepreneurs and industry experts, and faculty educational programs.						
Anticipated End Results	Entrepreneurs and industry experts will help identify the most promising projects, which will then receive proof of concept funding; projects that successfully demonstrate proof of concept will then be moved into startup formation, or in those cases were a startup is already under way, into business plan development. Several startups are expected to form and advance.						
Results achieved to Date/Plans	GIVF Seed Grant Competition was held in fall 2010 - http://research.uiowa.edu/content/grow-iowa-values-fund-givf-seed-grant-program. $238,000 was awarded to 6 faculty projects for technology proof of concept, with awards ranging from $25K to $48K. Two of these projects are already the basis for two new startups formed this fall, and the other 4 projects have high potential for startup formation. Another $17K was allocated for industry experts and entrepreneurs for review of projects considered for funding, but not yet funded due to market/technical questions that require additional analysis. $24.5K was allocated to the John Papajohn Entrepreneurial Center business plan competition.						

University of Iowa	Project	List of all FY 2010 Revenue Sources	Revenue Dollars for FY 2010	Amount of FY 2010 State Appropriations Expended as of 12/31/2010			
	Support operational and personnel costs of key economic development areas	FY 2010 State Appropriations (GIVF)	$288,000	$288,000			
		FY 2010 Matching Funds (Other)	$288,000	$288,000			
Description of Project	These funds will support critical economic development support functions associated with University Research Park, BioVentures Center, Technology Innovation Center and IOWA Centers for Enterprise.						
Anticipated End Results	Staff support to provide unique facilities and incubate technology based companies as well as facilitate linkage with key university core resources						
Results achieved to Date/Plans	1) Satellite offices for all IOWA Centers for Enterprise units have been established at BioVentures Centers. This will provide tenant companies direct access to experts to help move their business development goals. 2) Developed marketing materials for the core research units to help link university core research facilities with start up company needs. In addition, created a manual for core facilities to use when working with start up companies: http://enterprise.uiowa.edu/researchpark/index.php?option=com_jdownloads&task=viewcategory&catid=1&Itemid=110 , 3) Staff support for UIRP, BVC and TIC. 4) Planned the first annual entrepreneurial education and celebration event in February 2010 that highlighted ICE accomplishments as well as recognized University of Iowa faculty, staff and students for entrepreneurial awards.						

University of Iowa	Project	List of all FY 2010 Revenue Sources	Revenue Dollars for FY 2010	Amount of FY 2010 State Appropriations Expended as of 12/31/2010			
	Fund expenses at the new BioVentures Building	FY 2010 State Appropriations (GIVF)	$300,000	$300,000			
		FY 2010 Matching Funds (Other)	$300,000	$300,000			
Description of Project	The BioVentures Building was made possible by a collaborative partnership between Ryan Companies and the University of Iowa. The new building provides critical space and services for life science startup companies at the University of Iowa Research Park. The BioVentures Center will use these funds to pay debt associated with the construction of the new BioVentures Building.						
Anticipated End Results	Full occupancy of the BioVentures wet lab space and successful graduation of tenant companies to locations within the state of Iowa.						
Results achieved to Date/Plans	Seven companies (Vertex Pharmaceuticals, Cellular Engineering Technologies, Terpenoid Therapeutics, ASL Analytical, KemPharm, Exemplar Genetics and CQM Systems) occupy 10 wet labs and 13 dry labs/offices in BVC. 59% of leasable space. Two floors of the west wing of the BioVentures Center have been fit out for those UI units presently housed in Oakdale Hall.						

University of Iowa	Project	List of all FY 2010 Revenue Sources	Revenue Dollars for FY 2010	Amount of FY 2010 State Appropriations Expended as of 12/31/2010			
	Support of the Office of Vice President of Research	FY 2010 State Appropriations (GIVF)	$214,000	$190,000			
		FY 2010 Matching Funds (Other)	$214,000	$190,000			
Description of Project	These funds will be used by the Vice President for Research & Economic Development for program integration and development (including salary support and funding opportunities to foster medium to long range projects that will impact economic development.						
Anticipated End Results	The VPR will lead a coordinated model focused on new business development, as well as linking Iowa based companies with various university assets. The overall goal is to establish a regional asset for individuals and companies interested in entrepreneurism.						
Results achieved to Date/Plans	Partial salary support for Vice President for Research and Economic Development and other key faculty and staff. With this increased focus on Economic Development, the VPR has been able to focus additional efforts in this area and as a resulthe has presented to regional economic development groups in Dubuque and the Quad Cities. Additional focus also on the integration of IOWA Centers for Enterprise units and collaboration with community partners. Used $40,000 to purchase a high resolution scanner in order to bring the endonuclease array invention to market. The Carver College of Medicine Dean's Office and the Department of Biology, Carver Center for Genomics each provided $40,000 in cost share for the equipment, which is expected to benefit several other faculty members across campus.						

University of Iowa	Project	List of all FY 2010 Revenue Sources	Revenue Dollars for FY 2010	Amount of FY 2010 State Appropriations Expended as of 12/31/2010			
	Support training, consultation and outreach for Iowa entrepreneurs	FY 2010 State Appropriations (GIVF)	$190,000	$190,000			
		FY 2010 Matching Funds (Other)	$190,000	$190,000			
Description of Project	To fund expenses associated with training, consultation and outreach for Iowa entrepreneurs. John Pappajohn Entrepreneurial Center will continue to expand outreach programs for Iowans.						
Anticipated End Results	The Pappajohn Entrepreneurial Center, while continuing its strong state-wide focus on educating undergraduates, will increase its commitment to working with faculty/student and staff entrepreneurs who are interested in creating a start-up company, developing business plans, devising marketing strategies and seeking funding opportunities. JPEC will also provide the linkage between Iowa companies and the University expertise.						
Results achieved to Date/Plans	1) Hired a new Project Manager who started work in January 2010. His role was to identify opportunities and manage projects for existing Iowa-based companies to work with UI faculty/students in the areas of strategic business planning, market research and analysis, and operations/financial assessment. 2) JPEC hosted over 36 different opportunities last year for students, faculty and persons from the community. In FY10, over 1,700 attendees came to learn from experienced entrepreneurs on a variety of topics including: Technology Export Roundtable, various tax workshops, and Entrepreneurial Boot Camp. 3) JPEC held an Undergraduate Student Elevator Pitch competition which successfully had 42 participants to help early stage ventures raise capital for their business. JPEC also held a Faculty, Staff, and Graduate Assistant Elevator pitch competition which successfully had 40 participants to help early stage ventures raise capital.						

University of Iowa	Project	List of all FY 2010 Revenue Sources	Revenue Dollars for FY 2010	Amount of FY 2010 State Appropriations Expended as of 12/31/2010			
	Expand the Center for Biocatalysis & Bioprocessing into a state-of-the-art Bioprocessing Center	FY 2010 State Appropriations (GIVF)	$241,500	$241,500			
		FY 2010 Matching Funds (Other)	$241,500	$241,500			
Description of Project	To expand into a dedicated bioprocessing support for industrial biotechnology companies at the Center for Biocatataysis and Bioprocessing (CBB). Currently, CBB is deficient in performing these operations, which have the potential to convert soy and corn residues to fuels and chemicals. CBB has experienced a surge in these activities. This reflects the surge in DOE and Venture funding into companies involved in this area.						
Anticipated End Results	CBB has identified a critical need to build a dedicated process development center at their GLP facility. This facility would provide a scale-up solution to industrial biotechnology companies engaged in biofuels, biochemicals and biomaterials from corn stover, soy-oil and other agricultural feedstocks. Industrial Biotechnology is rapidly expanding; CBB is experiencing growth in this area as well, but would be well positioned for maximum growth with the new bioprocessing center. As CBB ramps up this activity, revenue is expected to grow as well. Potential to bring companies to establish pilot and manufacturing facilities in Iowa.						
Results achieved to Date/Plans	1) CBB achieved $3.5 million in revenue in FY10. 2) Several 30 L fermentors have already been installed as a first step towards establishing capability in the industrial biotechnology area. 3) A startup company, Modular Genetics, is working with CBB in producing biosurfactants from soy-carbohydrate. This company is in the process of setting up a contract with CBB for 1-3 years, to work on soy-derived chemicals and other biosurfactants. 4) CBB is working with MIT towards production of biodiesel via fermentation. 5) CBB has also teamed up with AmbroZea and DNA2.0, two Palo Alto, CA based companies to enhance the value of DDGs. Towards this, Iowa Power Fund has already approved $1.425 M to be spent at CBB, and the other 0.075 M to be spent at ISU. But this is subject to AmbroZea raising $10-13 M for the entire program.						

University of Iowa - as of December 31, 2010
Grow Iowa Values Fund Appropriations

$1,459,200 Board of Regents approved August 2010

		FY 2011 GIVF Appropriation	Revised 2011 Budget
1	Support new company formation and educational programs through UIRF	$300,000	$300,000
2	Support operational and personnel costs of key economic development areas	$265,250	$283,993
3	Fund expenses at the new BioVentures Building	$246,250	$246,250
4	Expansion of Center for BioCatalysis and BioProcessing (CBB)	$150,000	$150,000
5	Integrate and develop economic development support functions	$331,700	$313,647
6	Support training, consultation and outreach for Iowa entrepreneurs - JPEC	$166,000	$165,310
		$1,459,200	$1,459,200

University of Iowa	Project	List of all FY 2011 Revenue Sources	Revenue Dollars for FY 2011	Amount of FY 2011 State Appropriations Expended as of 12/31/2010			
	Support new company formation through University of Iowa Research Foundation	FY 2011 State Appropriations (GIVF)	$300,000	$0			
		FY 2011 Matching Funds (Other)	$300,000	$0			
Description of Project	The University of Iowa Research Foundation will use funds to support new company formation.						
Anticipated End Results	As these programs are implemented and sustained, we expect the pipeline of promising new ventures to become a robust source of on-going economic development in Iowa. New company formation based on UI or Iowa-related intellectual property involves assessment and exploration, early planning and development, and pre-seed and seed investing.						
Results achieved to Date/Plans	The funds are to support the development of innovations with commercial potential, with the result that more UI technology reaches the marketplace as the foundation for new Iowa companies and/or the growth of existing Iowa companies. The funding is intended to support a wide-range of stages in technology development, from initial concept (prior to intellectual property disclosure), to proof of concept, to engagement of technology savvy-business development, to licensing and commercialization.						

University of Iowa	Project	List of all FY 2011 Revenue Sources	Revenue Dollars for FY 2011	Amount of FY 2011 State Appropriations Expended as of 12/31/2010			
	Support operational and personnel costs of key economic development areas	FY 2011 State Appropriations (GIVF)	$283,993	$106,967			
		FY 2011 Matching Funds (Other)	$283,993	$106,967			
Description of Project	These funds will support critical economic development, and support functions associated with University Research Park, BioVentures Center, Technology Innovation Center and IOWA Centers for Enterprise.						
Anticipated End Results	Staff support to provide unique facilities and incubate technology based companies as well as facilitate linkage with key university core resources						
Results achieved to Date/Plans	1) Phase I of Master planning for the UI Research Park was completed in summer 2010 2) Staff support for UIRP, BVC and TIC; 3) coordination of recognition events, job fairs and entrepreneurial education and celebration accomplishments as well as recognize University of Iowa faculty, staff and students for entrepreneurial awards in November 2010 4) created a virtual tenant program that allows tenants limited access to the meeting rooms, administrative services and company listing on our website. 5) Celedon signed a lease for space at the TIC (August 2010), the TIC has an occupancy rate of about 55%. 6) A renewable long term lease has been signed with Integrated DNA Technologies, Inc. (IDT), a prominent local company with 500+ employees, to lease space in 2 buildings on the UI Research Park.						

University of Iowa	Project	List of all FY 2011 Revenue Sources	Revenue Dollars for FY 2011	Amount of FY 2011 State Appropriations Expended as of 12/31/2010			
	Fund expenses at the new BioVentures Building	FY 2011 State Appropriations (GIVF)	$246,250	$246,250			
		FY 2011 Matching Funds (Other)	$246,250	$246,250			
Description of Project	The BioVentures Building was made possible by a collaborative partnership between Ryan Companies and the University of Iowa. The new building provides critical space and services for life science startup companies at the University of Iowa Research Park. The BioVentures Center will use these funds to pay debt associated with the construction of the new BioVentures Building.						
Anticipated End Results	Full occupancy of the BioVentures wet lab space and successful graduation of tenant companies to locations within the state of Iowa.						
Results achieved to Date/Plans	Sixty two percent of leasable space with nine companies (Vertex Pharmaceuticals, Cellular Engineering Technologies, Terpenoid Therapeutics, ASL Analytical, KemPharm, Exemplar Genetics, VIDA Diagnostics, Bio::Neos and CQM Systems) occupy 10 wet labs and 19 dry labs/offices in the BioVentures Center. Two (2) tenants have an option on another laboratory. We anticipate leasing a laboratory in early spring of 2011. In fall 2010, two floors of the west wing of the BioVentures Center have been fit out for those UI units presently housed in Oakdale Hall. These units are associated with research centers reporting to the Colleges of Public Health and Pharmacy and the Office of the Vice President for Research. Two tenants from the TIC expanded and relocated to the BioVentures Center in the fall of 2010. An RFP with a local fitness center was sent out for approval in winter of 2010, this will provide fitness and wellness services to the tenants locate don the UI Research Park.						

University of Iowa	Project	List of all FY 2011 Revenue Sources	Revenue Dollars for FY 2011	Amount of FY 2011 State Appropriations Expended as of 12/31/2010			
	To fund the expansion at the Center for Biocatalysis and Bioprocessing.	FY 2011 State Appropriations (GIVF)	$150,000	$38,764			
		FY 2011 Matching Funds (Other)	$150,000	$51,492			
Description of Project	To fund the expansion in Industrial Biotechnology (IB) capability at the Center for Biocatalysis and Bioprocessing. CBB is continuing to collaborate with several start-up companies involved in producing biochemicals and fuels from biomass. 1) Surge in private and federal/state investments into industrial biotechnology is creating many opportunities; 2) the need for additional equipment and capability to meet all the needs of pilot scale process in industrial biotechnology and, 3) partnership opportunities for CBB with some of the start-up companies.						
Anticipated End Results	CBB is mainly involved in production of biotherapeutic proteins. However, in the last year, CBB has seen a substantial increase in activities related to biofuels and chemicals from biomass. Via this expansion, CBB will be very well positioned to collaborate with Industrial Biotechnology companies and provide "a gateway" for such companies to establish operations in Iowa, including using corn and soybean biomass and/or residues as feedstocks.						
Results achieved to Date/Plans	As of December 31, 2010 over $1.8 million revenue has been generated. We project to have to have >3 million dollars in revenue again for fiscal FY11. We are continuing to expand into Industrial Biotechnology area and have put GIVF funds to good use. For this fiscal year, two major purchases, an Octave Chromatography System ($88,634) and an AKTA Pilot ($116,736) have been purchased for large scale separation and purification of fermentation/biotransformation derived products. We have also added 3 new clients and have another 6 prospective clients pending through the UIRIS system. In addition, the collaboration with AmbroZea to produce enriched DDGs via ethanol fermentation is moving forward.						

University of Iowa	Revenue	List of all FY 2011 Revenue Sources	Revenue Dollars for FY 2011	Amount of FY 2011 State Appropriations Expended as of 12/31/2010			
	Integrate and develop economic development support functions	FY 2011 State Appropriations (GIVF)	$313,647	$74,500			
		FY 2011 Matching Funds (Other)	$313,647	$74,500			
Description of Project	These funds will be used by the Vice President for Research and Economic Development for program integration and development. A portion of these funds will be used to offset salary of key leaders with responsibilities in economic development. Additional funds will be used to supplement proof of concept funding to enable translation of promising basic research to clinical and commercial applications and other opportunities to foster medium to long range projects that will impact economic development.						
Anticipated End Results	The VPR will lead a coordinated model focused on new business development, as well as linking Iowa based companies with various university assets. The overall goal is to establish a regional asset for individuals and companies interested in entrepreneurism.						
Results achieved to Date/Plans	With this increased focus on Economic Development the VPR has been able to focus additional efforts in regional economic development groups in Dubuque and the Quad Cities. Additional focus also on the integration of IOWA Centers for Enterprise units and collaboration with community partners. ICE has played a leading role in the efforts of the Corridor Business Alliance to create a regional economic development strategy for the Cedar Rapids/Iowa City/Coralville corridor http://corridor2020.com/2010/05/corridor-business-alliance-update/. Funds also used to support educational efforts for faculty. New on-line manual available at http://research.uiowa.edu/content/economic-developmenttechnology-transfer.						

University of Iowa	Project	List of all FY 2011 Revenue Sources	Revenue Dollars for FY 2011	Amount of FY 2011 State Appropriations Expended as of 12/31/2010			
	Support training, consultation and outreach for Iowa entrepreneurs	FY 2011 State Appropriations (GIVF)	$165,310	$48,678			
		FY 2011 Matching Funds (Other)	$165,310	$63,697			
Description of Project	John Pappajohn Entrepreneurial Center will continue to expand outreach programs for Iowans and Iowa entrepreneurs.						
Anticipated End Results	The Pappajohn Entrepreneurial Center, while continuing its strong state-wide focus on educating undergraduates, will increase its commitment to working with faculty/student and staff entrepreneurs who are interested in creating a start-up company, developing business plans, devising marketing strategies and seeking funding opportunities. JPEC will also provide the linkage between Iowa companies and the University expertise.						
Results achieved to Date/Plans	1) There are on-going efforts put forth by our newly hired Project Manager who started work early last year. His role is to identify opportunities and manage projects for existing Iowa-based companies to work with UI faculty/students in the areas of strategic business planning, market research and analysis, and operations/financial assessment. 2.) In the Fall 2010 JPEC held an Undergraduate Student Elevator Pitch competition which successfully had 48 participants to help early stage ventures raise capital for their business. Also in the Fall JPEC held a Faculty, Staff, and Graduate Assistant Elevator pitch competition which successfully had 35 participants to help early stage ventures raise capital. An Entrepreneurship Boot Camp was held in which 22 attended the half day session to listen to 4 different speakers tell of their experiences in business. Keynote speakers included: Bruce Lehrman, CEO of Involta, Inc.; Charles Dirks, CEO of CQM Systems; Scott Lowe of Entrepreneurs CFO; and Maggie Mowery of Change Management, LLC. The Fasttrac New Venture series was presented to 12 participants that attended a 4 hour workshop for 7 consecutive weeks. During the fall our 06T:192 Business Consulting course assisted 26 community based businesses using multiple student led teams.						

Iowa State University - as of December 31, 2010
Grow Iowa Values Fund Appropriations

		FY 2010 GIVF Appropriation		
1	Commercialization Infrastructure and Campus-Wide Entrepreneurial Culture	$600,000	$1,732,500	Board of Regents approved August 2009
2	Commercialization Program	$1,132,500		

Iowa State University	Project	List of all FY 2010 Revenue Sources	Revenue Dollars for FY 2010	Amount of FY 2010 State Appropriations Expended as of 12/31/2010
1	Commercialization Infrastructure and Campus-Wide Entrepreneurial Culture	FY 2010 State Appropriations (GIVF)	$600,000	$376,426
		FY 2010 Matching Funds (General Fund)	$269,753	
		FY 2010 Matching Funds (In-Kind)	$31,659	
		FY 2010 Matching Funds (Other)	$200,000	
Description of Project				
Anticipated End Results				
Results achieved to Date				
Plans				

Iowa State University	Project	List of all FY 2010 Revenue Sources	Revenue Dollars for FY 2010	Amount of FY 2010 State Appropriations Expended as of 12/31/2010
2	Commercialization Program	FY 2010 State Appropriations (GIVF)	$1,132,500	$713,557
		FY 2010 Matching Funds (General Fund)	$540,628	
		FY 2010 Matching Funds (Federal Support)	$0	
		FY 2010 Matching Funds (Cash)	$84,495	
		FY 2010 Matching Funds (In-Kind)	$308,569	$933,692
Description of Project				
Anticipated End Results				
Results achieved to Date				

Iowa State University	Project	Total Project Budget	Allocated Dollars FY 2010	Amount of FY 2010 Allocation Expended as of 12/31/2010
Principal Investigator	Arunnantha Kanthasamy (Jim Bloedel)	$128,100	$128,100	$87,442
Description of Project	Testing of lead PK compounds in preclinical animal models of Parkinson's disease			
Anticipated End Results	Our main goal is to develop oral neuroprotective drugs for the treatment of Parkinson's disease (PD) in humans. Currently we are in the preclinical stage of drug development. The ultimate success of the proposed neuroprotective technology may create many new opportunities in Iowa, including economic and job growth and a viable biotechnology industry.			
Results achieved to Date	Results In the previous funding period (Jan-Jun 2010), we had shown that co-treatment with PK analogs, PK8103, PK8202 and PK9302 significantly improved locomotor deficits and attenuated striatal dopamine and DOPAC loss in MPTP-treated animals in a dose-dependent manner. In this funding period based on SBIR P2 reviewers comments we modified PK analog structures as needed to address druggability, off-target and ADMET issues, while maintaining or increasing potency and selectivity for our pharmacological target PKCδ. We synthesized 4th generation analogs derived from PK302 structure, in which meta-phenols containing Michael acceptors were protected by methoxy groups and other chemically reactive groups were modified. We identified a lead analog, PK401, which was neuroprotective in cell culture Parkinson's disease (PD) models, with IC50s in the nM levels for its intended therapeutic target PKCδ. We propose to generate new library of 32 5th generation (PK500) compounds using PK401 as the base structure and identify lead drug candidates with IC50s in low double digit nM range and evaluate them in kinase profiling, ADME-fingerprint, rat PK and other tests. Commercialization We have strengthened our Drug discovery and business management team by adding two new consultants with vast experience in medicinal chemistry and drug development to strengthen our drug discovery team. 1) Robert John Kerns, Ph.D., with >15 years experience in medicinal chemistry and pharmacology; and 2) Michael Crider, Ph.D., with >30 years experience in drug development. Their personal statements are included in their biosketches. Two new business development consultants, 3) John S. Kiely, Ph.D and 4) Pandi Veerapandian, Ph.D, who have over 25 years of experience each in leading biotechnology and pharmaceutical companies. We intend to recruit an industry experienced management team in order to secure partnerships and substantive venture capital as our drug discovery efforts meet certain milestones, such as meeting minimal requirements for IND filing.			
Plans				

Iowa State University	Project	Total Project Budget	Allocated Dollars FY 2010	Amount of FY 2010 Allocation Expended as of 12/31/2010
Principal Investigator	Jesse Goff (Jim Bloedel)	$89,657	$89,657	$75,173
Description of Project	Use of Beta-Glucuronides of Vitamin D to treat inflammatory bowel disease			
Anticipated End Results	Develop products based on vitamin D to treat and prevent a number of human and animal diseases. The basis for these products is a plant of the Solanacene family that contains a number of vitamin D-related compounds that have been shown to have unique activities affecting both calcium metabolism and cell growth and immune function. The native hormone form of vitamin D has been shown to ameliorate the symptoms or slow development of several auto-immune disorders in mice. However, the hypercalcemic effect of the native hormone precludes its use in humans. We intend to utilize glycosides of vitamin D compounds to target delivery of the vitamin D compounds to the lower gut to ameliorate inflammatory bowel disease. By delivering the vitamin D compounds only to the affected tissues we can reduce the potential for toxicity allowing use in humans.			
Results achieved to Date	In a mouse model utilizing dextran sodium sulfate to induce inflammatory bowel disease (IBD), we previously demonstrated our 1,25-vitamin D □-glucuronide reduced severity of disease. Though 1,25-dihydroxyvitamin D had a similar effect, it caused severe hypercalcemia. We focused on our compound's ability to "target" deliver 1,25-dihydroxyvitamin D, the active hormone, to the colon. 1,25-dihydroxyvitamin D acts on tissues to cause up-regulation of an enzyme known as 24-hydroxylase. Measuring 24-hydroxylase mRNA levels allows a very sensitive indicator of the degree to which a tissue has responded to a vitamin D compound. Administering 24 pmoles of 1,25-dihydroxyvitamin D up-regulated colon 24-hydroxylase 5-8 fold. Giving 24 pmoles of our 1,25-dihydroxyvitamin D glucuronide up-regulated colon 24-hydroxylase almost 700 fold, clearly demonstrating targeting of the drug's actions to the colon. In humans, marginal plasma vitamin D concentrations are associated with increased risk of IBD. We found bacterial numbers in the colon of vitamin D deficient mice are from 50 – 100 fold higher than in vitamin D replete animals. Cadherin is a protein that forms tight junctions between colon epithelial cells and keeps bacteria from breaching the intestinal wall. We found a 20-30% decline in cadherin mRNA in vitamin D deficient mice. It is believed two factors that "cause" IBD are an aberrant response to bacteria residing in the gut, and a loss of integrity of epithelial cell tight junctions. We will determine the dose of 1,25-vitamin D □-glucuronide required to maintain "normal" bacterial numbers in the gut and integrity of the tight junctions. We already know that at the doses we are using the native hormone causes life threatening hypercalcemia, while our compound does not. We have also done two studies looking at the effect of our compound in chronic IBD models. The results suggest a modest, but repeatable, ameliorating effect on IBD. Demonstrating the direct effects on the colon along with the therapeutic effect in several IBD models will improve the likelihood that this will be chosen for use in human Phase I clinical trials.			
Plans				

Iowa State University	Project	Total Project Budget	Allocated Dollars FY 2010	Amount of FY 2010 Allocation Expended as of 12/31/2010
Principal Investigator	Bryony Bonning	$107,680	$107,680	$59,886
Description of Project	Transgenic Plant Resistance to Invertebrate Pests			
Anticipated End Results	We have developed a new technology for plant resistance to aphids based on a plant virus coat protein (CP) fused to an insect specific toxin (omega-atracotoxin Hv1a) that acts within the aphid body cavity (Miller and Bonning, 2007). The objectives of this research are to (1) test the CP-P-Hv1a resistance technology against a broad range of invertebrate pests, and (2) construct transgenic plants and determine the extent of pest resistance.			
Results achieved to Date	Objective 1. To test the efficacy of delivery of toxins into the aphid hemocoel by the luteovirus coat protein (CP) based on feeding assay data, pea aphids (Acyrthosiphon pisum) were selected for injection due to their relatively large size. ED50 was determined by injecting E. coli –expressed, pGEX-purified CP-P-Hv1a in a total volume of 100 nL at the base of the second leg. Aphids were paralyzed within 30 minutes of injection. An ED50 of 1.254 pmol (0.971-1.539 95% CL) was calculated based on data for 5 dose treatments (15 to 0.6 pmol) by probit analysis using PoloPlus Version 2.0			
Plans				

Iowa State University	Project	Total Project Budget	Allocated Dollars FY 2010	Amount of FY 2010 Allocation Expended as of 12/31/2010
Principal Investigator	Byron Brehm-Stecher	$106,690	$106,690	$102,956
Description of Project	Rapid Sequence- based Detection of Human Pathogens: From Farm to Fork to Physician			
Anticipated End Results				
Results achieved to Date	This work is synergistic with our other Grow Iowa Values Fund project, AdvanCEs in Food Safety: Fast Fragment Analysis for Differentiation and Tracking of Foodborne Pathogens. Both projects are collaborative with Advanced Analytical Technologies, Inc. (AATI) and both focus on capillary electrophoresis-based methods for analysis of biological materials, yet each project retains distinct individual goals. Parallel work on both projects has facilitated excellent interactions with AATI and have resulted in unique opportunities to gain additional market exposure for the company. For example, AATI will present data from this project during Association for Laboratory Automation's LabAutomation2011 meeting in January 2011 in a session on high-throughput methods for the analysis of foods, chaired by Dr. Brehm-Stecher, and Dr. Brehm-Stecher will coordinate his invited talk at the European Lab Automation conference on "Advances In Biodetection & Biosensors" (Hamburg, Germany, July, 2011) with Lutz Büchner, Director of European Operations for AATI. This coordination will enable us to maximize exposure of our work with AATI's instrumentation to potential customers in Europe. Highlights of our progress during this period include: - Receipt of external funding from the USDA and the US Department of Education (listed above) for rapid microbial detection work that will directly benefit Iowan agribusiness partners such as Hy-Line, International • "From Farm to Fork to Physician: Detection of Human Pathogens Across the Production to Consumption to Disease Continuum", idea to International Association for Food Protection accepted for full development as a 3.5 hour symposium. Invited speakers include Dr. Gary Procop of the Cleveland Clinic Foundation, a collaborator on this grant. • Invited by the editors of Journal of Visualized Experiments to co-author (with AATI) a video article on application of the FS-96 instrument for DNA-fragment-based analyses of Salmonella spp. - Profiler instrument retrofitted with a heated capillary array box to enhance resolution.			
Plans				

Iowa State University	Project	Total Project Budget	Allocated Dollars FY 2010	Amount of FY 2010 Allocation Expended as of 12/31/2010
Principal Investigator	Pat Halbur	$69,500	$69,500	$52,009
Description of Project	Development of a novel Genetic Test fo Inerited Bovine Diseases and its application to tissues and embryos			
Anticipated End Results	Develop and commercialize a panel of molecular diagnostic assays for detection of genetic diseases and production traits sensitive enough to use on biopsies from bovine embryos. This will benefit the Iowa beef and dairy industries by decreasing costs associated with maintaining the pregnancies of genetically diseased animals and accelerating the selection of genetically superior seed stock Iowa cattle producers.			
Results achieved to Date	See 2011 Update. The project received some funding in both years.			
Plans				

Iowa State University	Project	Total Project Budget	Allocated Dollars FY 2010	Amount of FY 2010 Allocation Expended as of 12/31/2010
Principal Investigator	Brad Bosworth / Hank Harris	$146,610	$146,610	$76,662
Description of Project	Prevention of swine influenza: Commercialization of replicon particle and replicon subunit vaccines			
Anticipated End Results	The goal of this project is to develop replicons that express various influenza HA genes and to determine their immunogenicity and efficacy as SIV vaccine candidates			
Results achieved to Date	Since its introduction, novel H1N1 virus has been a concern for the swine industry. For a novel H1N1 vaccine efficacy study, we produced novel H1 replicon particle (RP) and replicon subunit (RS) vaccines within two months of the outbreak being reported. Following challenge, both H1 RS and RP vaccinated pigs demonstrated reduced viral shedding and lung pathology, and increased average daily gain, when compared to non-vaccinated pigs. In addition to homologous influenza protection, several research labs have demonstrated that antibodies directed to conserved regions of the HA molecule are able to neutralize heterosubtypic strains of influenza. A vaccination regimen that induces these broadly-reactive antibodies has been determined in several influenza animal models, but not in swine. We are currently planning a study that will determine if a similar vaccination regimen that incorporates HA RP along with a killed influenza vaccine is capable of inducing these broadly-protective antibodies in swine. In addition to novel H1, replicons expressing swine H1 Beta, Gamma, Delta, and cluster 4 H3 have been produced and evaluated for antibody responses in pigs. Antigen-specific antiserum from the study is used in a hemagglutination inhibition assay with swine influenza field isolates to determine antigenic cross-reactivity. These results can be used to quickly produce customizable vaccines via Sirrah Bios' VCP (Vet/Client/Patient) relationship. In 2009, Sirrah Bios sold 198,868 doses of SIV RS vaccine via VCP relationship, and 559,500 doses in 2010. In addition, Harrisvaccines, Inc. d/b/a Sirrah Bios, has submitted an application to the Center for Veterinary Biologics (CVB) for full licensure of a cluster 4 H3 RP vaccine, expected in late 2011.			
Plans				

Iowa State University	Project	Total Project Budget	Allocated Dollars FY 2010	Amount of FY 2010 Allocation Expended as of 12/31/2010
Principal Investigator	David Grewell	$34,504	$34,504	$32,424
Description of Project	Naturally Controlled Gelatinization of Corn Starch			
Anticipated End Results	The main thrust of the proposed work was to characterize, demonstrate, and scale-up the use of high powered ultrasonics to partially and controllably gelatinize corn starch application. The new processing method would allow Grain Processing Corporation (GPC) to market a new product using ultrasonication to partially swell the starch without solvents/chemicals, thus making it a "natural" product.			
Results achieved to Date	PREVIOUS REPORT: Currently, methods for producing instant starches (partially and controllably gelatinize starches) gel either involve use of harsh chemicals or energy intensive processes. The proposed ultrasonics method will allow the industry to produce a "natural" product without the use of these chemicals. Task 1 for this project has been completed. Task 2 is currently ongoing.			
Plans				

Iowa State University	Project	Total Project Budget	Allocated Dollars FY 2010	Amount of FY 2010 Allocation Expended as of 12/31/2010
Principal Investigator	Rick Sharp	$29,890	$29,890	$26,805
Description of Project	Effect of oral ATP on human muscle performance			
Anticipated End Results	There is evidence that intramuscular and intravenous injection of ATP is effective in restoring muscle function after injury and as result of chronic muscle fatigue such as low-back pain. Although oral supplements of ATP are available as non-prescription dietary supplements, there is presently no evidence of their efficacy. Our purpose is to determine if providing an oral dose of ATP (adenosine triphosphate) will influence human muscle strength or endurance.			
Results achieved to Date	All human subject testing trials have been completed and analysis of blood samples has begun. We are currently conducting analyses of clinical chemistry markers to document safety of the product and are conducting statistical analyses on the measures related to muscle performance (strength and endurance).			
Plans				

Iowa State University	Project	Total Project Budget	Allocated Dollars FY 2010	Amount of FY 2010 Allocation Expended as of 12/31/2010
Principal Investigator	Tanja Opriessnig	$80,000	$80,000	$39,211
Description of Project	Cross Protective Immunity			
Anticipated End Results	The objective of the current project is to further explore a novel PRRSV vaccine candidate, and to validate the results from the previous pilot study while concurrently evaluating details of the immune response and cross protection provided by the vaccine.			
Results achieved to Date	Pigs were derived from a source known to be free of PRRSV and the status of the piglets was confirmed upon arrival at Iowa State University. Pigs were weighed at arrival and on the day of necropsy in order to determine average daily weight gain difference between groups for the duration of the study. At three weeks of age a portion of the pigs was vaccinated with the live PRRSV virus, a portion was vaccinated with the novel vaccine candidate and the remaining pigs remained non- vaccinated to serve as positive and negative controls. Pigs were monitored daily for signs of respiratory distress after vaccination and for the duration of the study. A necropsy was performed on half of each of the vaccinated groups in order to determine the severity of lesions caused by the vaccine candidate. Challenge with a heterologous strain occurred 4 weeks after vaccination in the remaining pigs. After challenge with the IA-PRRSV virus no significant clinical signs were observed. A PRRSV specific PCR was performed on all samples on serum collected from each pig on the day of necropsy and it was confirmed that negative control pigs remained negative for the duration of the study and 90.9% of positive control pigs were positive by PCR. For pigs in the vaccine candidate group only 44% were viremic on the day of necropsy in comparison to 60% viremia in the group given the live virus. Gross lung lesion scores varied from 8-80% of the lung affected in the novel vaccine group, 2-60% in the positive control group, 7-40% in the live virus group and 3-9% in the negative control group. A porcine circovirus type 2 (PCV2) IHC was performed on pigs in the novel vaccine candidate group to rule of the role of PCV2 in the increased lesion severity in this group. Further work is in progress.			
Plans				

Iowa State University	Project	Total Project Budget	Allocated Dollars FY 2010	Amount of FY 2010 Allocation Expended as of 12/31/2010
Principal Investigator	George Kraus / Eliot Winer	$10,000	$100,000	$71,500
Description of Project	Volumetric Model Analysis for Bariatric Medicine			
Anticipated End Results	Research visualization strategies that can aid in bariatric medicine for diagnosis and treatment of patients.			
Results achieved to Date	We have developed multiple tools to assess the physical characteristics of patient's in diagnosis and treatment from a bariatric specialist. These advances include: • Basic segmentation of organs and structures to allow visual examination • Creation of tools to measure required physical characteristics such as measures of length and volume			

Iowa State University	Project	Total Project Budget	Allocated Dollars FY 2010	Amount of FY 2010 Allocation Expended as of 12/31/2010
Principal Investigator	Mike Kessler	$40,000	$28,275	$25,851
Description of Project	Pultruded Window Frames from Agricultural Oils			
Anticipated End Results	To develop resins and composites for pultrusion manufacturing to produce fiberglass reinforced biorenewable composite window frames.			
Results achieved to Date	PREVIOUS REPORT: We are making good progress in developing and characterizing polymer composites processed by the pultrusion processing of fiberglass/bio-resin for composite window frame applications. These bio-based resins are made from soybean and linseed oils by two different processes: cationic polymerization and ring-opening metathesis polymerization (ROMP). Our initial efforts had been directed at decreasing the cure times and characterizing the cure kinetics of the resins made by the cationic polymerization of soybean oil (with different loadings of the styrene and divinylbenzene co-monomers). In that work, we found that the room temperature gel times vary from 35 to 70 min while the gel times at 160 oC vary from 40 to 80 s, depending on composition.			

Iowa State University	Project	Total Project Budget	Allocated Dollars FY 2010	Amount of FY 2010 Allocation Expended as of 12/31/2010
Principal Investigator	Mike Olsen	$104,690	$4,804	$4,804
Description of Project	Development of the Next Generation of Vortex Flow Meters for Engine Applications			
Anticipated End Results	To assist J-TEC in developing their next generation of vortex flowmeters, the proposed research seeks to: 1) experimentally study the basic physics of vortex flows generated by struts in automotive applications, 2) develop computational fluid dynamics tools to assist in the design of strut geometries for these applications, and 3) investigate alternative methods for accurate vortex detection			
Results achieved to Date	The project was complete June 30, 2010 and the final report submitted then.			

Iowa State University	Project	Total Project Budget	Allocated Dollars FY 2010	Amount of FY 2010 Allocation Expended as of 12/31/2010
Principal Investigator	Ted Heindel / Atul Kelkar	$143,814	$9,337	$6,174
Description of Project	Waste Plastics, Crude Oil Sludge, and Tar Sand to Diesel – Capturing Energy from Waste			
Anticipated End Results	To conduct research related to thermo-catalytic conversion of Waste Hydrocarbons to useful fuels. Specific goal of this GIVF project is to enhance and fine-tune the proof-of-concept technology developed by IES for converting waste hydrocarbons to high grade fuel by investigating various catalyst and process parameters.			
Results achieved to Date	1. Based on the data given by IES from their proof-of-concept trials a new set of catalyst compositions and trial matrix was developed for various feedstocks in first half of 2009. Using this matrix different trials were conducted for different feedstock combinations and catalyst combinations. More trials continue for generating more exhaustive database. 2. Several trials were conducted on two types of feedstocks – refinery residue and different types of plastics. The samples of outputs were given to Chemistry lab on campus for detailed component and mass analysis. The samples were compared with commercially available diesel sample taken from gas station. For the most part all samples compared reasonably well with diesel. Although samples contained some other carbon chains which are attributed to un-distilled samples. 3. IES made some modifications to the plant to enable quick cycle time for plant trials. In order to analyze process effectiveness for different feedstocks different industrial plastic waste generators as well as collectors were contacted and some waste plastic samples were also collected for processing. 4. In August 2009, a demonstration was arranged for various dignitaries including Congressman Latham at BECON. Other guests included potential users of the technology such as Hy-Vee, city and state officials, university personnel, and local representatives. 5. A significant progress has been made on commercialization of this technology. IES has been engaged in communication with various potential users of the technology. The list of users include refinery residue processing company in middle east, Hy-Vee, Ames and Des Moines City Officials, Waste Management, and a company in Mauritius. Few of these potential users have asked for a formal techno-commercial offer (proposal) for a commercial scale plant to suite their need. 6. During the period Aug 2009 through March 2010, there has been close interaction with several DoD offices dealing with Waste to Energy initiatives inside DoD. In particular, the two offices of DoD who have been in close communication with Dr. Kelkar and IES team for potential R&D activity with DoD are Army Power Division, Power Technology and Alternative Energy Branch and Defense Logistics Agency, Defense Energy Support Center, Product Technology and Standardization. 7. Currently IES has submitted proposal to DLA, DESC for construction and operation of mobile demonstration unit at one of DLA's bases. If funded, IES will be responsible in designing, building, commissioning, and operating the Waste to Energy demonstration unit at one of the Army bases in U.S. for the period of 12 months. Upon successful completion of the project there is potential of military order for several such units across DoD operating bases. This will give tremendous boost to Iowa-based company and contribute to new employment and economy.			

Iowa State University	Project	Total Project Budget	Allocated Dollars FY 2010	Amount of FY 2010 Allocation Expended as of 12/31/2010
Principal Investigator	Iver Anderson	$221,499	$91,364	$38,603
Description of Project	Iowa Powder Atomization Technologies (IPAT): Titanium Atomizer Prototype Design			
Anticipated End Results	The primary goal of this project is to design and fabricate a novel prototype atomizer for the production of fine spherical titanium metal powder. Upon completion, this prototype will be used to demonstrate the feasibility of an innovative titanium melt pouring concept that can be coupled to a high pressure gas atomization nozzle to produce high quality Ti powder. If successful, commercialization of this atomization technique could result in the start of a new business called Iowa Powder Atomization Technologies (IPAT).			
Results achieved to Date	Task 1: A prototype close-coupled high pressure gas atomization (CC-HPGA) system with a cold wall copper melting crucible and composite refractory superheat pour tube was completed. An extended period of detailed system design was conducted and a complete set of engineering drawings was completed. In addition to the titanium atomizer, a monitoring and recording "module" and large heat-exchanger system were added to the system components. A "slightly used" cold wall copper crucible was obtained on extended loan from Idaho National Laboratory. This fortunate assistance for our project reduced the lead time for this specialized equipment and was obtained for only the expense of shipping. The cold wall crucible is energized by an induction coil using the existing induction powder supply. A new cold wall crucible induction coil was designed through the use of electro-magnetic field (EMF) modeling and built by Fluxtrol Inc. of Auburn Hills, MI, and was introduced into the system. Additional optimizations of the existing power supply through on-site assistance of Fluxtrol, Inc.; additional capacitance was added to the system and has allowed for full power capability. Having a full 150kW of power at the disposal of the operator is an enormous milestone and greatly enhances the probability of successful operation of the prototype atomizer. Several downstream gas halos and a shroud were designed and incorporated into the system. The combined halo/shroud system is intended to provide cooling and passivation of the powders after atomization and to prevent satellite powder particle formation. If the satellite prevention function proves to be successful, it has the potential to generate new intellectual property. In addition to the gas halos, a liquid nitrogen chilling system was attached to the powder collection system. Thermocouple measurements indicated collection system temperatures of ~-30□ C, which will also aid in cooling of the fine powders down to safe levels. Task 2: During our recent preliminary trials, the design and operation of the new water cooling and vacuum system additions were demonstrated to be successful, providing sufficient water cooling to the interior of the system while maintaining excellent operational vacuum levels. The pour tube coil system was turned on for an initial "heat-up trial". This test was conducted without the presence of the complex and expensive atomization nozzle to protect against damage in case of unforeseen results. This test was deemed successful as pour tube interior temperatures reached ~2100□ C while other components were maintained at sufficiently cool temperatures. This allowed for a subsequent "full on" heat up trial where all cooling components were circulating while all atomization components necessary for atomization were included. This run also was deemed a success, giving confidence that all components of the complex system were working properly and that sufficient cooling is present for ALL systems simultaneously. After the Fluxtrol improvement of the main melting power supply to permit full power operation at the proper frequency, a Ti-6Al-4V charge was heated and melted in the cold copper crucible in the most recent trial. Melting of the charge occurred at ~110kW, which indicated additional power available, when required. Sensitive thermocouple measurements and local video imaging give indications that melting of the titanium had occurred. The molten titanium charge was held within the water-cooled copper crucible in a stable thermal condition, indicating sufficient cooling capacity and control. As the power was increased, electric arcing took place between the melting coil and the atomization chamber (which is a ground source). This arcing prevented full melting and atomization of the charge despite sufficient power. The damage done to the coil is being repaired at this time and a method for arc prevention has already been determined and is in-progress at Fluxtrol. It was determined during the melting trial described above that there was insufficient visualization of the developing melt surface. It is of primary importance that visualization of the melt be available to allow for proper charge melting and skull formation. A CCD camera with proper lenses and filters has been ordered to allow for the proper visualization of the melt to take place. A full atomization trial of the completed prototype CC-HPGA system will be conducted to produce metal injection molding (MIM) quality powder from a Ti-6Al-4V alloy charge in January 2011. Of the many obstacles for successful operation of the prototype system, sufficient power from the available power supply to melt the titanium alloy charge was the most critical. With this unknown now eliminated and the arcing sources suppressed, there are no other apparent obstacles for successful atomization in the next trial. Task 3: The yield of the prototype CC-HPGA system for high quality titanium alloy powders will be compared to other commercial powders (derived from samples, available data, and informed estimates) in terms of purity and the portion (wt.%) of each batch that is suitable for powder injection molding (dia.<45μm). Several samples of commercial Ti powders have been obtained, as well as chemical analysis data and some information for estimating yield of PIM grade powder for these sources.			

Iowa State University - as of December 31, 2010
Grow Iowa Values Fund Appropriations

		FY 2011 GIVF Appropriation	
1	Commercialization Infrastructure and Campus-Wide Entrepreneurial Culture	$500,000	**$1,459,200** Board of Regents approved August 2010
2	Commercialization Program	$959,200	

Iowa State University	Project	List of all FY 2011 Revenue Sources	Revenue Dollars for FY 2011	Amount of FY 2011 State Appropriations Expended as of 12/31/2010
1	**Commercialization Infrastructure and Campus-Wide Entrepreneurial Culture**	FY 2011 State Appropriations (GIVF)	$500,000	$125,480
		FY 2011 Matching Funds (General Fund)	$60,231	
		FY 2011 Matching Funds (In-Kind)		
		FY 2011 Matching Funds (Other)	$200,000	
Description of Project	See individual projects			
Anticipated End Results				
Results achieved to Date				
Plans				

Iowa State University	Project	List of all FY 2011 Revenue Sources	Revenue Dollars for FY 2011	Amount of FY 2011 State Appropriations Expended as of 12/31/2010
2	**Commercialization Program**	FY 2011 State Appropriations (GIVF)	$959,200	$62,085
		FY 2011 Matching Funds (General Fund)	$38,535	
		FY 2011 Matching Funds (Federal Support)		
		FY 2011 Matching Funds (Cash)		
		FY 2011 Matching Funds (In-Kind)	$70,490	
Description of Project	See individual projects			
Anticipated End Results				
Results achieved to Date				

Iowa State University	Project	Total Project Budget	Allocated Dollars FY 2011	Amount of FY 2011 Allocation Expended as of 12/31/2010
Principal Investigator	-		$200,000	-
Description of Project	Pappajohn Center for Entrepreneurship			
Anticipated End Results				
Results achieved to Date	Grow Iowa Values Funds provide student and staff support to assist individuals starting and growing businesses. The funds also support on campus entrepreneurship activities to provide students educational and experiential opportunities in entrepreneurship, including participation in a national student entrepreneurship conference, and supporting coordinating experienced entrepreneurs as student mentors.			

Plans				
Iowa State University	Project	Total Project Budget	Allocated Dollars FY 2011	Amount of FY 2011 Allocation Expended as of 12/31/2010
Principal Investigator			$200,000	$125,481
Description of Project	ISU Research Park			
Anticipated End Results				
Results achieved to Date	Grow Iowa Values Funds support efforts to provide support and assistance to companies at the Research Park or prospective Research Park companies. The companies assisted include; 1. Working with technology startup companies and faculty and students considering forming new companies. 2. Assisting technology companies secure the resources they need to be successful and grow. 3. Working with state and local economic development officials to recruit existing technology companies to Iowa.			

Plans				
Iowa State University	Project	Total Project Budget	Allocated Dollars FY 2011	Amount of FY 2011 Allocation Expended as of 12/31/2010
Principal Investigator			$100,000	-
Description of Project	Vice President for Research			
Anticipated End Results				
Results achieved to Date	Grow Iowa Values Funds support the technology transfer and economic development mission of the Office of the Vice President for Research and Economic Development (VPRED). Specifically, these funds are used to support the Industry Relations effort including salary support and operating budget. The Grow Iowa Values Fund commercilization program is administered in the VPRED office as well as efforts to coordinate industry relations and other tech transfer activities across campus.			

Plans				
Iowa State University	Project	Total Project Budget	Allocated Dollars FY 2011	Amount of FY 2011 Allocation Expended as of 12/31/2010
Principal Investigator	Diane Janvrin		$40,590	$3,521
Description of Project	Market Research for Prioritizing Market Segments for Product Development			
Anticipated End Results	Provide WebFilings management with a broad understanding of potential markets for their product and an in-depth analysis of a single market segment.			
Results achieved to Date	WebFilings is an Iowa based startup company that has developed a cloud-based software application to assist publicly traded companies with developing reports for the Securities and Exchange Commission (SEC). We were asked to identify up to twelve industry segments where significant and perpetual reporting requirements exist for regulators, customers or stakeholders. Based on discussions with WebFilings management, we were then directed to conduct an in-depth market analysis of one market segment.			
Plans				

Iowa State University	Project	Total Project Budget	Allocated Dollars FY 2011	Amount of FY 2011 Allocation Expended as of 12/31/2010
Principal Investigator	Hui Hu		$78,305	$376
Description of Project	Development of Advanced Flow Diagnostic Techniques to Characterize Next Generation Fuel Nozzles			
Anticipated End Results	The goal of this research project is to develop advanced diagnostics to quantify spray characteristics and to elucidate important processes in spray flows, such as the breakup of liquid jets and sheets, atomization and evaporation of fuel droplets, and air/fuel mixing in order to assist GECD in developing next generation fuel nozzles for maximized energy efficiency while minimizing pollutant emissions, and maintaining the operability requirements.			
Results achieved to Date	1). The system design of the experimental rig needed to carry out the proposed research work has been finished. Some of the hardware parts and test models are being manufactured. 2). The theoretical framework of the proposed advanced flow diagnostic techniques has been finished. The high-energy laser system, high-speed imaging system and associated the optics and optic-mechanic devices have already been allocated for this GIVF project. 3). A comprehensive literature review of previous research work related to this GIVF research project has already been finished. 4). A GECD fuel injector/atomizer nozzle has been already been received for the preliminary measurements. 5). A research team has been formed to conduct the proposed research. The team members include: Dr. Hu Hu-the PI; Dr. Zifeng Yang- Post-doctoral Research Associate; and Mr. Daniel Dvorak - a Graduate Research Assistance.			
Plans				

Iowa State University	Project	Total Project Budget	Allocated Dollars FY 2011	Amount of FY 2011 Allocation Expended as of 12/31/2010
Principal Investigator	Patrick Halbur		$83,000	-
Description of Project	Developemnt of a Novel Geneti Test for Inherited Bovine Disease and Its Application to Embryos			
Anticipated End Results	Develop and commercialize a panel of molecular diagnostic assays for detection of genetic diseases and production traits sensitive enough to use on biopsies from bovine embryos. This will benefit the Iowa beef and dairy industries by decreasing costs associated with maintaining the pregnancies of genetically diseased animals and accelerating the selection of genetically superior seed stock Iowa cattle producers.			
Results achieved to Date	Primer pairs and probes have been designed and tested for gender determination and each of the genetic disorders including Bovine Leukocyte Adhesion Deficiency, Complex Vertebral Malformation, Arthrogryposis Multiplex, Neuropathic Hydrocephalus and coat color. We have confirmed PCR conditions and product size for each of the reactions. Using a DNA dilution series, we are able to detect samples with less than 10 fentamoles of DNA consistent with the amount available in a biopsied bovine fetus. We have moved the testing to the Luminex bead platform. However, when analyzing samples to date on the Luminex platform, we are unable to obtain signals much above background. We have redesigned primers to increase hybridization to the Luminex beads and made several other recommended adjustments. We are performing other troubleshooting options for the Luminex platform and also examining use of different platforms. We have brought in consultants from another private company to resolve the issue with hybridization of the nucleic acids to the beads. Indications are that we have identified a solution for successful completion of assay development that should allow us to move on to diagnostic kit development. Our embryo biopsy technique has been further adapted and validated to achieve acceptable pregnancy rates (50%) following post-biopsy genetic testing and freezing. Several embryos have been collected, biopsied to provide genetic materials for testing, and frozen. Embryo transfers with frozen-biospied-thawed embryos are being performed. We hope to be able to produce out first multiplex kits for gender, coat color and the most important genetic disease (Arthrogryposis Multiplex/Curley Calf Syndrome) within the next 2 months. We will then begin to refocus on adding virus detection components to the assay menu.			
Plans				

Iowa State University	Project	Total Project Budget	Allocated Dollars FY 2011	Amount of FY 2011 Allocation Expended as of 12/31/2010
Principal Investigator	Rick Sharp		$99,883	$40,263
Description of Project	Efficacy of a new delivery system for B-Hydroxy-B-Methylbutyrate			
Anticipated End Results				
Results achieved to Date	All human subject testing trials have been completed and analysis of blood samples has begun. We are currently conducting analyses of inflammation markers in blood samples obtained from volunteers who were exercised and given the various doses of HMB. In addition, functional measures of muscle strength recovery have been completed and are being analyzed for statistical significance. All clinical blood markers of product safety are currently being analyzed.			
Plans				

Iowa State University	Project	Total Project Budget	Allocated Dollars FY 2011	Amount of FY 2011 Allocation Expended as of 12/31/2010
Principal Investigator	Byron Brehm-Stecher		$106,961	-
Description of Project	Advances in food safety: fast fragment analysis for differentiation and tracking of foodborne pathogens			
Anticipated End Results	Develop improved DNA fragment-based analyses using an advanced capillary electrophoresis platform; to apply this approach to practical problems of pathogen ecology in layer hen and related agricultural environments of critical importance to Iowan agribusiness.			
Results achieved to Date	The project is focused on use of AATI's FS-96 instrument for DNA fragment-based detection and characterization of pathogenic bacteria occurring in layer hen production facilities and other environments of critical importance to Iowan agribusiness. The project is being carried out in close consultation with an Iowan company that is a lead supplier of layer hens to world markets. Additional collaboration in support of this project's technology transfer goals includes partnership with Dr. Hongwei Xin, Director of Iowa State University's Egg Industry Center. In addition to the above list, important milestones for the project include: • Took delivery of FS-96 instrument, valued at $70,000. • Accepted Zongyu Zhang, FSHN PhD student (begins May 2011) • Hosting Molecular Cellular and Developmental Biology (MCDB) rotator Amanda Riddle in the lab for training on molecular detection of bacterial pathogens This project has served as an essential backdrop for high-visibility collaborative work between the Brehm-Stecher Rapid Microbial Detection and Control Laboratory and Advanced Analytical Technologies, Inc., Specifically: • We have been invited by the editors of Journal of Visualized Experiments to co-author (with AATI) a video article on application of the FS-96 instrument for DNA-fragment-based analyses of Salmonella spp. Experiments for this paper are currently underway. • AATI personnel will present data from this project during the LabAutomation2011 meeting in late January 2011 in a session on high-throughput methods for the analysis of foods, chaired by Dr. Brehm-Stecher. • Dr. Brehm-Stecher has been invited to speak at the "Advances In Biodetection & Biosensors" conference to be held in Hamburg, Germany (July, 2011). The conference is being held within the greater European Lab Automation meeting. Visit will be coordinated with Lutz Büchner, Director of European Operations for Advanced Analytical Technologies. This visit will enable us to maximize exposure of our work with the FS-96 system to potential AATI customers in Europe.			
Plans				

Iowa State University	Project	Total Project Budget	Allocated Dollars FY 2011	Amount of FY 2011 Allocation Expended as of 12/31/2010
Principal Investigator	Sri Sritharan		$109,000	$461
Description of Project	Design Verification and cost evaluation of UHPC towers for enhancing Iowa's wind energy production			
Anticipated End Results				
Results achieved to Date	No report provided			
Plans				

Iowa State University	Project	Total Project Budget	Allocated Dollars FY 2011	Amount of FY 2011 Allocation Expended as of 12/31/2010
Principal Investigator	Vasant Honavar		$109,243	-
Description of Project	Data mining toolsfor healthcare informatics			
Anticipated End Results	To demonstrate the feasibility of applying statistically based artificial intelligence algorithms for improving the quality of healthcare.			
Results achieved to Date	No funds have yet been spent on this project because the start of the project was delayed in part because of delay on the part of Collaborative Health Solutions (CHS) in gathering some of the patient data and making it available to the ISU team working on the project. This delay has been mainly due to the challenges of coping with non-standard encodings and nomenclature used in the illness knowledge base as well as the patient health records. Hence, the efforts of CHS have been focused on standardizing the vocabulary used to represent the data in illness knowledge base and patient database. We anticipate having the first set of data that we can work with during the next couple of months. In the mean time, the ISU team has focused on developing strategies for data analysis and mining tasks in patient-patient matching, patient-illness matching, and computer-assisted diagnosis and related tasks using illness knowledge base and patient health records. We are thus well-positioned to take advantage of the illness knowledge base and patient data as soon as they are made available by Collaborative Health Solutions, LLC.			
Plans				

Iowa State University	Project	Total Project Budget	Allocated Dollars FY 2011	Amount of FY 2011 Allocation Expended as of 12/31/2010
Principal Investigator	Ayman Fayed		$117,944	$7,318
Description of Project	Battery life enhancement in portable and remotely deployed systems using spread-spectrum switching power regulators			
Anticipated End Results	The development of energy-efficient buck switching power regulators using innovative random spread-spectrum control schemes to convert their switching output noise into an analog/RF friendly noise spectrum. This will enable using them to directly power sensitive analog/RF modules in battery-operated portable electronic devices, hence eliminating energy inefficient linear regulators and/or expensive noise filtering. This new technology can result in significant reduction in system power consumption, which translates in extended battery life or reduced number of batteries needed by the system in both military and commercial applications.			
Results achieved to Date	This year we have been focused on establishing the theoretical basis for this new technology. The theoretical concepts have been verified using several simulations and modeling methods, and the results were very promising in terms of performance. We have then followed that by implementing a hardware prototype using some of the theoretical work we had developed. Experimental testing of this hardware prototype in our ISU labs has been very successful and demonstrated solid potential for this new technology. More work is still needed in the coming months to improve our design and make it a high-volume production worthy design. Nevertheless, our initial prototype showed very promising results, prompting us to file an invention disclosure to the ISU Research Foundation, which has approved its filing to the US patent office. In our effort to take this technology to maturity and help marketing/commercializing it appropriately, we started engaging several semiconductor companies including Rockwell Collins (our sponsor), and Skyworks Inc. at Cedar Rapids, Iowa, and Texas Instruments at Dallas, Texas in order to better understand their technical requirements and how to incorporate our technology into their products. This engagement resulted in several meetings and presentations to these companies. Moreover, both Rockwell Collins and Skyworks Inc. allowed us to evaluate our technology using samples of their products as well as their lab facilities. At this point, we anticipate this engagement to continue for the next year before anything can materialize, but we are seeing a clear path towards getting this technology adopted in real products.			
Plans				

Iowa State University	Project	Total Project Budget	Allocated Dollars FY 2011	Amount of FY 2011 Allocation Expended as of 12/31/2010
Principal Investigator	Sanjeevi Sivasankar	$120,075	$120,075	$8,277
Description of Project	Commercialization of an integrated single molecule atomic force microscope-fluorescence microscope for academic and industrial applications			
Anticipated End Results	The objective of this proposal is to build a highly integrated and modular single molecule Atomic Force Microscope-Fluorescence Microscope (smAFM-FM) for academic and industrial applications.			
Results achieved to Date	Since award of the GIVF funding, we have made significant progress in three areas. 1. We have refined the smAFM-FM instrument by introducing a feedback system that improves measurement accuracy. We have also built and tested an instrument module that permits simultaneous AFM-spectral measurements . We have upgraded to a closed-loop AFM to minimize mechanical drifts. 2. We have performed "proof of concept" simultaneous single molecule AFM-spectral measurements. In these experiments, we used smAFM-FM to measure the force dependent of optical properties of CdS/CdSe tetrapod, a technologically important semiconductor nanocrystal. We were able to demonstrate, for the first time in the world, that a single tetrapod changes its optical properties when subjected to an external force. As the AFM tip applies a force on the tetrapod by pressing it, the tetrapod fluorescence emission intensity increases. Simultaneously with increasing force, the fluorescence emission shifts to longer wavelengths. 3. We are in the process of performing "proof of concept" smAFM-FRET experiments using biomolecules. We are measuring the force induced shearing of dye-labeled, double stranded DNA. This experiment will showcase smAFM-FM's capabilities to simultaneously measure the interaction of single biomolecules with pN force resolution, their structure with nm distance resolution, and dynamics with ms time resolution. These experiments will be used in generating future sales and marketing material for the commercialized smAFM-FM instrument			
Plans				

Iowa State University	Project	Total Project Budget	Allocated Dollars FY 2011	Amount of FY 2010 Allocation Expended as of 6/30/2010
Principal Investigator	Arun Somani / Suraj Kothari	$77,388	$77,388	-
Description of Project	A programmable software pattern analyzer (PSPA); Critical safety improvement for transportation control systems			
Anticipated End Results				
Results achieved to Date	No report provided			

Iowa State University	Project	Total Project Budget	Allocated Dollars FY 2011	Amount of FY 2010 Allocation Expended as of 6/30/2010
Principal Investigator	Matt Frank	$50,000	$16,811	$1,869
Description of Project	Innovative methods for the manufacturing of patient specific bone implants			
Anticipated End Results	To develop methods for bone implant manufacturing, provide pilot testing results, and move toward commercialization of a software product for surgery planning and rapid implant production.			
Results achieved to Date	We have recently completed a first successful test of "harvesting" a bone implant from a representative donor leg bone. Personnel at the Musculoskeletal Transplant Foundation (MTF), upon visiting the team (ISU and U of Iowa partners in the Orthopaedic Biomechanics Laboratory) in Summer 2010, indicated that an open question was to the efficacy of using our proposed methods with donor bones, rather than from stock material (rods or squares of artificial/natural bone samples). In December, the ISU lab successful ran a trial test using an artificial bone sample, a commercially available bone surrogate for the distal (far) end of the human Tibia (shin bone). This bone represents what an organization like MTF would start with for creating an implant. This implant was potted in resin (FIG-A) and laser scanned into a computer model (CAD model). As such, we showed how a donor's leg bone could be scanned and stored in a virtual library for future harvesting. Then, we took an implant sample computer file and "fit" the implant into the leg bone model on the computer (FIG-B), basically showing how a surgical technician would choose a harvesting site from the donor library. Finally, using the ISU technology we have developed, we successfully harvested an implant from the donor surrogate (FIGS C-D). We have recently completed a first successful test of "harvesting" a bone implant from a representative donor leg bone. Personnel at the Musculoskeletal Transplant Foundation (MTF), upon visiting the team (ISU and U of Iowa partners in the Orthopaedic Biomechanics Laboratory) in Summer 2010, indicated that an open question was to the efficacy of using our proposed methods with donor bones, rather than from stock material (rods or squares of artificial/natural bone samples). In December, the ISU lab successful ran a trial test using an artificial bone sample, a commercially available bone surrogate for the distal (far) end of the human Tibia (shin bone). This bone represents what an organization like MTF would start with for creating an implant. This implant was potted in resin (FIG-A) and laser scanned into a computer model (CAD model). As such, we showed how a donor's leg bone could be scanned and stored in a virtual library for future harvesting. Then, we took an implant sample computer file and "fit" the implant into the leg bone model on the computer (FIG-B), basically showing how a surgical technician would choose a harvesting site from the donor library. Finally, using the ISU technology we have developed, we successfully harvested an implant from the donor surrogate (FIGS C-D).			

University of Northern Iowa - as of December 31, 2009
Grow Iowa Values Fund Appropriations

		FY 2010 GIVF Appropriation - $855,000	Reflects 10% reduction to base appropriation
1	Technology Transfer and Business Incubation (5429)	$288,000	
2	Rural Entrepreneurship (5431)	$180,000	
3	Market Research (5433)	$90,000	
4	Capacity Building and Implementation for Regional Development (5430)	$117,000	
5	National Ag-Based Lubricants (NABL) Center (5432)	$180,000	

		FY 2011 GIVF Appropriation - $729,600	Reflects 15% reduction from previous year allocation
1	Technology Transfer and Business Incubation (5603)	$254,600	
2	Rural Entrepreneurship (5605)	$150,000	
3	Market Research (5607)	$75,000	
4	Capacity Building and Implementation for Regional Development (5604)	$100,000	
5	National Ag-Based Lubricants (NABL) Center (5606)	$150,000	

University of Northern Iowa	Project	List of all FY 2010 & 2011 Revenue Sources	5429 Revenue Dollars for FY 2010	Amount of FY 2010 State Appropriations Expended as of 12/31/2010	List of all FY 2011 Revenue Sources	5603 Revenue Dollars for FY 2011	Amount of FY 2011 State Appropriations Expended as of 12/31/2010
1	Technology Transfer and Business Incubation	FY 2010 State Appropriations (GIVF)	$288,000	$288,000	FY 2011 State Appropriations (GIVF)	$254,600	$104,462
		FY 2010 Federal Support		$392,726	FY 2011 Federal Funding		
		FY 2010 Other		$55,799	FY 2011 Other		$81,909
Description of Project	UNI continues to advance intellectual property disclosures, protection and commercialization across campus. Strategies for commercialization include licensing, strategic partnerships and new business development. The Innovation Incubator has created a hub facility, coalescing the existing strength of Intellectual Property disclosures and University research with quality business services to support business incubation and growth. The incubator and support facilities offer a physical link between the Iowa business community, campus innovators and faculty researchers to enhance technology transfer at UNI. Central to this approach are multiple BCS programs that combine education and innovation - some new and some successfully established - working in tandem to create a rich spectrum of services and a unique physical environment to support technology transfer and entrepreneurship.						
Anticipated End Results	As technology transfer and intellectual property development continues to mature at UNI, we expect to generate 12 disclosures per year, file 5 patents, enter 2-3 license agreements and graduate 5-7 new companies into the Iowa economy annually. UNI's incubators will serve 15-20 entrepreneurial ventures and the Student Business Incubator will house 10-15 companies and serve another 25 affiliates creating approximately 50 jobs.						
Results Achieved to Date	During the past 6 months, tech transfer activity increased with two substantial license agreements and increased business incubation activity. Intellectual property disclosures were fewer, but patent activity increased. UNI-licensed technologies have resulted in approximately $4 million in annual revenue for Iowa companies. The Student Business Incubator is full with one of the tenants chosen as one of four finalists for Collegiate Entrepreneur of the Year by Entrepreneur Magazine. The Innovation Incubator has attracted, served and graduated two more early stage companies and is near full capacity. In addition, the 4th Street Incubator recently graduated two companies, adding 10 new jobs to the regional economy. Forty-two companies have graduated from the 4th Street Incubator since it opened.						
Plans	UNI will continue to focus on commercialization initiatives, including license negotiations and business start ups. Tenancy at the new Innovation Incubator will continue to increase and reach 100% occupancy by the end of the year. At least 12 intellectual property disclosures will be received with 2-3 licensing agreements executed under patent or trade-secret provisions and UNI will continue to support late-stage faculty research projects. In addition, the Student Business Incubator will remain full, generating spin-off companies for the Iowa economy. Additionally, UNI will expand its corporate research and development program to assist existing businesses in Iowa.						

University of Northern Iowa	Project	List of all FY 2010 & 2011 Revenue Sources	5431 Revenue Dollars for FY 2010	Amount of FY 2010 State Appropriations Expended as of 12/31/2010	List of all FY 2011 Revenue Sources	5605 Revenue Dollars for FY 2011	Amount of FY 2011 State Appropriations Expended as of 12/31/2010
2	Rural Entrepreneurship	FY 2010 State Appropriations (GIVF)	$180,000	$179,984	FY 2011 State Appropriations (GIVF)	$150,000	$88,390
		FY 2010 Federal Support			FY 2011 Federal Funding		
		FY 2010 Other		$180,121	FY 2011 Other		$75,209
Description of Project	MyEntreNet is an entrepreneurship development system which identifies, recruits, networks and serves small business owners with information, services and access to capital in rural regions across the state. Through a comprehensive, technology-supported approach of building community capacity, customized technical assistance, networking and enhanced access to capital, MyEntreNet fills a significant gap in rural economic development in Iowa.						
Anticipated End Results	In FY 2011, MyEntre.Net's online community will grow by 50% to 9,000 Iowa small business owners engaged online. 500 small business owners will attend a regional EntreBash! event and 300 community leaders will begin the process of creating an entrepreneurship support system by participating in the Entrepreneurial Communities Project. Those served through this system's approach will generate 125 new or expanded businesses and create 300 new full time jobs. 350 entrepreneurs representing 50 Iowa counties will attend the 4th annual EntreFest! statewide conference for small business on February 24th and 25th, 2011 in Dubuque.						
Results Achieved to Date	Collectively, MyEntre.Net's support system has expanded and evolved in response to demands from a growth oriented entrepreneurial community in the state. Online small business networking has accelerated dramatically in the first half of FY 2011, mirroring national trends in how small firms are seeking information, education and capital. As of mid-December, MyEntre.Net's home community had 8,200 members - 1,732 new members since June. Seventeen Webinars have attracted 540 attendees and MyEntre.Net YouTube videos have been viewed 2,155 times. MyEntre.Net's extended online community has 900 Twitter followers, 500 Facebook followers and lively interaction in all areas of the network. Between MyEntre.Net and our new capital resources at www.dreambiggrowhere.com nearly 100,000 visits were recorded in the past six months. A year end survey of these small business owners is 90% complete; preliminary numbers indicate job growth between January and December 2010 is up, with new FTE jobs reported statewide. A full report will be released in February.						
Plans	The online community will continue to be enhanced with on-demand and free research assistance for MyEntre.net users, an ongoing Dream Big Grow Here campaign and contest to attract growth-oriented small Iowa employer firms, and continued regional EntreBash! events statewide. New shared resources and technology tools for rural communities will be developed throughout the year. A statewide semi-annual survey of Iowa small business will be implemented, measuring entrepreneur needs and economic impact. UNI will continue to lead a consortium of statewide service providers in the planning of EntreFest!, the statewide conference for small business and entrepreneurs.						

University of Northern Iowa	Project	List of all FY 2010 Revenue Sources	5433 Revenue Dollars for FY 2010	Amount of FY 2010 State Appropriations Expended as of 12/31/2010	List of all FY 2011 Revenue Sources	5607 Revenue Dollars for FY 2011	Amount of FY 2011 State Appropriations Expended as of 12/31/2010
3	Market Research	FY 2010 State Appropriations (GIVF)	$90,000	$90,000	FY 2011 State Appropriations (GIVF)	$75,000	$38,831
		FY 2010 Federal Support			FY 2011 Federal Funding		
		FY 2010 Other		$95,569	FY 2011 Other		$41,531
Description of Project	Strategic Marketing Services remains focused on market research projects for start-up and existing businesses and organizations to expand and stimulate economic growth across Iowa. SMS is using a portion of GIVF dollars ($50,000) to embark upon a new approach to meeting client needs. This $50,000 will be matched by $50,000 dollars provided by the North Central Iowa Alliance and four manufacturing companies for a total project cost of $100,000. This new approach is designed to demonstrate the benefits of conducting market research to benefit existing Iowa companies on a regional basis. SMS is working with the North Central Iowa Alliance to identify excess production capacity among 150 manufacturing companies in seven counties in North Central Iowa. The results of this research will be used to identify four companies for individual market research projects with the intent of reducing excess manufacturing capacity in terms of plant equipment, recalling laid-off employees and creating jobs. The results of this project will serve as a model for other economic regions in Iowa. A portion of GIVF dollars will be used to write a white paper on this project that can be used to encourage other Iowa economic development groups to employ market research to assist businesses in their region. Additionally, SMS will market this concept throughout Iowa through news releases, articles, and presentations. With the exception of one project, all GIVF dollars are matched on a one-to-one basis with funds from the client. Entrepreneurs and small businesses can benefit from market research but cannot afford the costs of a market research project. SMS will offer one $10,000 market research project to a business on a competitive basis. Companies that attend EntreFest, an event for entrepreneurs and small businesses, can apply for this award. SMS will determine the best qualified business to receive this award. SMS continues to help Iowa businesses become more competitive by providing the following services: 1) Assist businesses, entrepreneurs, and organizations in assessing the potential of an idea for a product/service concept or in growing their organizations; and 2) Provide a structured research protocol that clients can implement on their own, with a provider of their choice, or by continuing to work with SMS.						
Anticipated End Results	Improved competitive intelligence for Iowa companies, thus increasing sales, business stability, and job retention and creation. Costs for market research projects are split between the client and GIVF investment, with a maximum GIVF support of $10,000 per project.						
Results Achieved to Date	Specific targeted accomplishments for FY 2011 include: Five market research projects ($50,000) to be completed in partnership with the North Central Alliance. A telecommunications market research project for the City of Charles City ($10,000). One project to be awarded through MyEntreNet ($10,000). One $5,000 project will be awarded.						
Plans	Plans are to use successful projects to encourage others to utilize market research. SMS will distribute success stories through news releases, articles and presentations.						

University of Northern Iowa	Project	List of all FY 2010 & 2011 Revenue Sources	5430 Revenue Dollars for FY 2010	Amount of FY 2010 State Appropriations Expended as of 12/31/2010	List of all FY 2011 Revenue Sources	5604 Revenue Dollars for FY 2011	Amount of FY 2011 State Appropriations Expended as of 12/31/2010
4	Capacity Building and Implementation for Regional Development/Helping Regions Succeed	FY 2010 State Appropriations (GIVF)	$117,000	$117,000	FY 2011 State Appropriations (GIVF)	$100,000	$48,950
		FY 2010 Federal Support			FY 2011 Federal Funding		
		FY 2010 Other		$118,034	FY 2011 Other		$60,545
Description of Project	With the shared purpose of expanding and stimulating economic growth across the state of Iowa, the Institute for Decision Making (IDM) continues to implement regional development assistance programs that build capacity regionally and locally, sustaining Iowa's regional economies over the long term.						
Anticipated End Results	Improvements are expected to four key areas related to regional development: 1) sustainability of regional work and strengthening the collaborating member groups, 2) regional metrics project, 3) BEST of Iowa partnership; and 4) Entrepreneurial communities project.						
Results Achieved to Date	IDM provided technical assistance to five regions and successfully continued to assist the Off-Shore Iowa (OSI) marketing efforts. IDM provided IDED with a template for establishing regional benchmarks based on secondary data available to the department. IDM reviewed all provided regional work plans and provided IDED with suggested region-specific benchmarks related to those work plans. IDM researched, completed, and delivered a manual to IWD of practical guidance for local leadership who may potentially, or are actually dealing with mass layoffs or business closures. IDM obtained feedback from early users of the manual in order to make modifications to the manual. IDM identified several significant challenges inhibiting Regional Innovation Grant (RIG) follow-through (workforce assessments) after federal funding is exhausted, thus yielding a low follow-through rate. IDM partnered with utility companies and economic development service providers to update the synchronist existing industry survey and helped local development groups enter data and conduct more effective existing industry programs. A pilot entrepreneurial communities project was launchd to integrate entrepreneurship into the regional economy.						
Plans	IDM will continue supporting regional targeting, marketing and planning efforts as requested, administering the grant to the Off-Shore Iowa virtual region, and assisting in the development and assessment of region-specific benchmarks. IDM continues to provide feedback to IWD as they make revisions to the pilot skillshed study and move forward with additional studies. IDM will participate in the Business Expansion & Strategic Trends (BEST) of Iowa program and expand the Entrepreneurial Communities Project (ECP) to enhance and increase entrepreneurship initiatives in local economic development.						

University of Northern Iowa	Project	List of all FY 2010 & 2011 Revenue Sources	5432 Revenue Dollars for FY 2010	Amount of FY 2010 State Appropriations Expended as of 12/31/2010	List of all FY 2011 Revenue Sources	5606 Revenue Dollars for 2011	Amount of FY 2011 State Appropriations Expended as of 12/31/2010
5	National Ag-Based Lubricants (NABL) Center	FY 2010 State Appropriations (GIVF)	$180,000	$174,721	FY 2011 State Appropriations (GIVF)	$150,000	$111,752
		FY 2010 Federal Support		$180,004	FY 2011 Federal Funding		$33,282
		FY 2010 Other			FY 2011 Other		
Description of Project	As a globally-recognized biobased lubricants research center, The National Ag-Based Lubricants (NABL) Center supports the growth of Iowa's bioeconomy with cutting-edge research involving biobased industrial and automotive lubricants, greases, functional fluids, and biobased product process and manufacturing technologies. NABL has become the primary source of expertise for biobased lubricants and greases in Iowa and the nation, a role that is increasingly important during this critical transition from a petroleum-based economy to a growing biobased economy.						
Anticipated End Results	As the anchor for Cedar Valley TechWorks, a regional economic development initiative focused on the bioeconomy, NABL's resources and expertise will be used to attract prospective biobased companies to Iowa. NABL will continue to provide support for the profitability and growth of the state's biobased products industry by offering credible performance testing resources and successful new product development.						
Results Achieved to Date	The NABL Centre has expanded its outreach within the State. Recent accomplishments include: • Provided product evaluation and product development services for six start-up companies with unique products of their proprietary biorefining processes. NABL's expertise makes the Center a leader in identifying value-added uses for biorefinary product streams as lubricating base oils and additives. • Completed early-stage work to develop a microwave-based, modular, skid-mounted, turn-key production process for biobased lubricating grease and other bioproducts. Partnered with AMTek Inc., a locally-owned company in Cedar Rapids, Iowa and a leader in microwave technology and industrial microwave systems, to develop a microwave-based biogrease production pilot plant resulting in several inquiries from biobased and traditional chemical and food-processing entities. • Formulated soy-based lubricating greases specifically for lubricating railroad tracks and rolling stock, and will be featured on the History Channel's 'Modern Marvels' series in January. Biobased grease production facilities at Environmental Lubricants Manufacturing (ELM) and field research conducted by the NABL Center in partnership with the Iowa Northern Railway Company will be featured in the Modern Marvels episode on lubricating grease. • Published a definitive text on biobased lubricants, "Biobased Lubricants and Greases: Technology and Products." The book, one of the only texts currently available with a comprehensive view of the biolubricants industry and related research, will be released to the public in early 2011. • Moved the NABL Center's laboratory to a newly remodeled facility at the Cedar Valley Techworks (CVTW). As CVTW's anchor tenant, NABL offers biobased product development and biolubricant testing services, to encourage further development of the State's biolubricants industry. • Researched the effect of isolating individual fatty acids for use in biobased grease production and their impact on the final properties and performance of biobased grease formulations. • Provided ISO 17025 accredited testing services to 10 start-up or existing businesses in biofuels, biolubricants, and other biobased product industries. • Applied NABL's unique expertise to advance the goals of national and international partners and industries in the development of biobased lubricants and greases, using their own crop oil inputs.						
Plans	The NABL Center will continue tocollaborate with industry partners to develop a modular, turn-key soy-grease manufacturing unit. This technology will put biobased lubricants in a position of cost advantage for perhaps the first time, ever. Initial testing indicates that the microwave processing equipment designed for this project may also have many applications in the food processing, biorefining, and chemical industries. Response and interest from for-profit industry has been very encouraging. New research work investigating specific fatty acids as lubricant feedstocks, coupled with new derivatives of soybean and other oilseeds, promises to catapult the State's bioproduct industries ahead of their competition by creating better performing products at better prices, with opportunities for value-added bioproduct manufacturing to grow in Iowa.						

BOARD OF REGENTS
GROW IOWA VALUES FUND
PRIVATE UNIVERSITY MONITORING

Private GIVF Contracts Summary sheet

			FY Award			Exhibit B Total Project amount	Contract Amount	Exhibit E Reimbursements to Date	Remaining Award	Match to Date	Remaining Project
Clarke College	George Towfic	George.Towfic@clarke.edu	FY 2008	Dec-07	3/27/2008	$ 212,092.00	$ 97,164.00	$ 97,164.00	$ -	$ 173,657.23	$ (58,729.23)
Drake University	Jayne M. Smith, Director, Sponsored Programs	jayne.smith@drake.edu	FY 2008	Dec-07	3/6/2008	$ 142,414.00	$ 71,207.00	$ 51,086.46	$ 20,120.54	$ 86,673.53	$ 4,654.01
Luther College	Eric Baack, Assistant Professor	baacer01@luther.edu	FY 2008	Dec-07	3/13/2008	$ 66,800.59	$ 32,337.00	$ 32,327.50	$ 9.50	$ 34,473.09	$ -

			FY Award			Exhibit B Total Project amount	Contract Amount	Exhibit E Reimbursements to Date	Remaining Award	Match to Date	Remaining Project
Drake University	Jayne M. Smith, Director, Sponsored Programs	jayne.smith@drake.edu	FY 2009	Dec-08	3/6/2009	$ 153,651.00	$ 60,000.00	$ -	$ 60,000.00	$ 22,540.00	$ 131,111.00
Luther College	Bradley Chamberlain, Assistant Professor	chambr01@luther.edu	FY 2009	Dec-08	6/23/2009	$ 200,505.00	$ 100,000.00	$ 99,904.01	$ 95.99	$ 186,191.58	$ (85,590.59)

			FY Award			Exhibit B Total Project amount	Contract Amount	Exhibit E Reimbursements to Date	Remaining Award	Match to Date	Remaining Project
Luther College	Bradley Chamberlain, Assistant Professor	chambr01@luther.edu	FY 2010	Feb-10	3/31/2010	$ 80,048.00	$ 40,000.00	$ 21,017.75	$ 18,982.25	$ 19,016.65	$ 40,013.60
Clarke College	George Towfic	George.Towfic@clarke.edu	FY 2010	Feb-10	3/31/2010	$ 190,398.00	$ 84,721.00	$ -	$ 84,721.00	$ -	$ 190,398.00
Upper Iowa University	Andrew Wenthe, Vice President for External	wenthea@uiu.edu	FY 2010	Feb-10	4/8/2010	$ 666,827.00	$ 55,279.00	$ -	$ 55,279.00	$ -	$ 666,827.00

Des Moines University

Award	$ 78,000.00	Budgeted Match	$ 141,395.00	Project Budget	$ 219,395.00
Total GIVF Reimbursements Approved:	$ 78,000.00	Reported Match:	$ 242,052.96	Project Total	$ 320,052.96

Expenses Submitted

Date Submitted	Amount Requested	Amount Approved	Date Approved
05/31/07	$19,700.00	$19,700.00	06/04/07
10/10/07	$8,059.42	$8,059.42	10/15/07
01/28/08	$11,380.62	$11,380.62	01/28/08
04/21/08	$11,250.13	$11,250.13	04/21/08
08/12/08	$27,609.83	$27,609.83	08/12/08

Match Funds Reported

Date Reported	Match Amount
6/30/2007	$16,771.97
6/30/2008	$86,131.98
12/31/2008	$18,122.53
	$121,026.48

Reporting Period	Total Reported
	$36,471.97
	$94,191.40
	$29,503.15
	$132,276.61
	$27,609.83
Total Reported	$ 320,052.96

completed

Des Moines University seeks $78,000 to conduct research designed to provide new methods for identifying mutations in the genetic material of pregnant women that increase their risk of delivering infants prematurely and to seek a commercial opportunity for disseminating the work. The research will begin with DNA test screening of pregnant women to provide the information necessary to create a test panel for specific mutations that can be combined into a single test for screening pregnancies. The Principal Investigators (PIs) state this detection method can then be developed as a rapid one-step commercial service or product. The PIs state they will conduct a rigorous feasibility study to determine the market potential for a prematurity test panel and take initial steps to develop a plan for commercialization. The PIs estimate there are annually 60,000 cases of prematurity in the United States and that the market for a prematurity screening product may be ten times that number. The project budget submitted identifies $105,989 in direct and indirect cost share for the first year of the project.

Drake University	Award	$ 60,000.00		Budgeted Match	$ 93,651.00	Project Budget	$ 153,651.00
Total GIVF Reimbursements Approved:		$ -		Reported Match:	$22,540.00	Project Total	$22,540.00

Expenses Submitted

Date Submitted	Amount Requested	Amount Approved	Date Approved

Match Funds Reported

Date Reported	Match Amount
2/26/2010	$ 22,540.00

Reporting Period	Total Reported
	$22,540.00
	$0.00
	$0.00
	$0.00
Total Reported	$22,540.00

Drake University seeks funding to assist in the establishment of Pharmacogenomics Training and Research Laboratory (PRTL). Pharmacogenomics is a discipline of health science related to the manner in which genes affect individual response to drugs. Pharmacogenomics has begun to offer tools for using individual genetic variations and drug responses to personalize or customize treatment or therapy in diseases such as breast cancer and leukemia. The proposal indicates the PRTL facility will serve as a central facility for Drake faculty involved in research requiring access to molecular, genomic and bioinformatics technologies. It is also proposed the facility would be available on a fee basis for individuals and organizations outside the university engaged in health care research. The facility will also be used for training current and future Drake students and to Iowa physicians, pharmacists and nurses involved in the use of the technology. The proposal indicates a positive commercial impact of the facility will result from: The largest single component of the proposal is for purchase of a pryosequencer for automatic DNA sequencing and genotyping. The project budget identifies $153,651 in matching funds from private donors and Drake University. The proposal indicates the project leader, Dr. Pramod Mahajan, previously served as managing director at the University of Texas Medical Branch Molecular Biology Center and is the lead inventor or author of 30 issued U.S. patents.

University of Dubuque

Award	$	200,000.00	Budgeted Match	$	219,000.00	Project Budget	$ 419,000.00
Total GIVF Reimbursements Approved:	$	200,000.00	Reported Match:	$	200,000.00	Project Total	$ 400,000.00

Expenses Submitted

Date Submitted	Amount Requested	Amount Approved	Date Approved
06/27/06	$ 140,466.00	$ 140,466.00	07/01/06
05/04/07	$ 63,448.24	$ 59,534.00	05/10/07

Match Funds Reported

Date Reported	Match Amount
3/23/2007	$ 140,466.00
1/16/2008	$59,534.00

Reporting Period	Total Reported
	$ 280,932.00
	$ 119,068.00
Total Reported	$ 400,000.00

completed

The University of Dubuque requests $200,000 from the GIVF to provide equipment and support for research. Equipment to be purchased includes a fermentor, specimen freezer, stereo microscope, and a user-license for molecular-modeling software.

The proposal describes the proposed research as a commercialization opportunity. The funded research would be undertaken to establish whether or not a particular enzyme is involved in the uptake of iron by certain organisms. If such a relationship exists, still further research would be conducted to determine whether the enzyme can be used as a vaccine. The proposal does not identify the medical or commercial applications for such a vaccine. The proposal does not indicate whether the idea has been systematically evaluated for its commercial value.

According to the proposal, the project would create a job for a post-doctoral researcher and provide a summer stipend for a student research technician. The complete proposal includes information on matching funds sources and an outline of metrics to evaluate results.

Luther — Award $ 32,337.00 — Budgeted Match $ 34,463.59 — Project Budget $ 66,800.59

Total GIVF Reimbursements Approved: $32,327.50 — Reported Match: $34,473.09 — Project Total $ 66,800.59

Expenses Submitted

Date Submitted	Amount Requested	Amount Approved	Date Approved
08/06/08	$11,895.79	$11,895.79	08/06/08
01/22/09	$13,599.00	$13,599.00	01/22/09
07/20/09	$6,832.71	$6,832.71	07/20/09

Match Funds Reported

Date Reported	Match Amount	Reporting Period	Total Reported
02/16/10	$5,254.33		$17,150.12
02/16/10	$18,968.67		$32,567.67
02/16/10	$5,154.95		$11,987.66
02/16/10	$5,095.14		$5,095.14
		Total Reported	$ 66,800.59

Luther College seeks $32,337 for a project to document DNA content variation in Iowa prairie plants. The project will provide basic data to allow researchers to develop the most productive and efficient plantings to provide sustainable sources of biomass for alternative fuel production. The same database will be used by researchers and seed producers interested in prairie restoration projects and in efforts to minimize and eradicate invasive species of plants. An Iowa company, Ion Exchange, Inc. will partner with the researchers to provide a source of seeds and plants for the project. Project leaders indicate more than 20 Iowa companies currently supply native seeds and plants in the state. The project budget identifies a total of $32,405 in matching cost share.

Luther — Award $ 100,000.00 — Budgeted Match $ 100,505.00 — Project Budget $ 200,505.00

Total GIVF Reimbursements Approved: $99,904.01 — Reported Match: $ 186,191.58 — Project Total $ 286,095.59

Expenses Submitted

Date Submitted	Amount Requested	Amount Approved	Date Approved
07/29/09	$39,782.23	$39,782.23	07/29/09
11/05/09	$22,805.50	$22,805.50	11/05/09
04/30/10	$1,929.32	$1,929.32	04/30/10
07/27/10	$35,386.96	$35,386.96	07/27/10

Match Funds Reported

Date Reported	Match Amount	Reporting Period	Total Reported
11/30/09	$88,873.00		$128,655.23
10/18/2010	$19,237.28		$42,042.78
			$1,929.32
			$35,386.96
		Total Reported	$ 208,014.29

Luther College seeks funding for a project entitled "A New Class of Plant-Based Plastics Derived from Soybean and Corn Oil." Specifically, the researcher proposes to develop polyguanidine polymers from the fatty acids found in soybean and corn oil. The principal investigator believes these specific polymers, being entirely plant-based, offer advantages compared to other bioplastics derived from soybean or corn oil which still contain petrochemical based components. It is also believed the polyguanidine polymers have a more stable molecular structure which will make them well suited for particular applications like liquid crystal displays.
The project budget identifies $100,505 in matching funds. The principal investigator has previously received GIVF funding through the Board of Regents for development of chemical catalysts and already holds one patent in corn-based plastics technology.

Luther — Award $ 40,000.00 — Budgeted Match $ 40,048.00 — Project Budget $ 80,048.00

Total GIVF Reimbursements Approved: $21,017.75 — Reported Match: $ 19,016.65 — Project Total $ 40,034.40

Expenses Submitted

Date Submitted	Amount Requested	Amount Approved	Date Approved
07/27/10	$20,180.14	$20,180.14	07/27/10
10/22/10	$837.16	$837.61	10/25/10

Match Funds Reported

Date Reported	Match Amount	Reporting Period	Total Reported
10/22/10	$19,016.65		$39,196.79
			$837.61
			$0.00
		Total Reported	$ 40,034.40

The proposal seeks funds for research into the use of cyclodextrins as a new and potentially less expensive method of detecting furans, diozanes and polychlorinated biphenyls which can pollute water systems. The researcher believes a low-cost, effective detection method could be commercialized and, once proven, could be expanded to detect other forms of chemical poliutants. The research indicates that the results of the project will be shared with environmental regulatory agencies.

Clarke

Award	$ 97,164.00	Budgeted Match	$ 114,928.00	Project Budget	$ 212,092.00
Total GIVF Reimbursements Approved:	$97,164.00	Reported Match:	$ 173,657.23	Project Total	$ 270,821.23

Expenses Submitted

Date Submitted	Amount Requested	Amount Approved	Date Approved
06/12/08	$32,737.20	$32,737.20	06/12/08
05/13/09	$64,426.90	$64,426.80	05/20/09

Match Funds Reported

Date Reported	Match Amount	Reporting Period	Total Reported
6/30/2008	$26,060.00		$58,797.20
12/31/2008	$15,600.00		$80,026.80
12/3/2009	$6,210.00		$6,210.00
8/13/2010	$20,110.23		$20,110.23
		Total Reported	$ 165,144.23

Clarke College seeks $97,337 for a project to develop a web-based HIV analysis library and a software product to be made available through licensing agreements. The library and software product will enable researchers to more efficiently mine HIV databases and develop statistical analyses which are necessary for providing better treatment options. The proposal is a result of collaborative efforts involving Clarke College, the University of Iowa, the University of Wisconsin-Madison and the University of Stanford. The cooperating institutions have existing HIV data sets and/or have medical and software expertise in related areas. Clarke College will host the proposed database and provide a secure network. In addition to the software product, Clarke anticipates being able to market related consultation services. The proposal identifies $114,926 in matching cost share.

Clarke

Award	$ 84,721.00	Budgeted Match	$ 105,677.00	Project Budget	$ 190,398.00
Total GIVF Reimbursements Approved:	$0.00	Reported Match:	$ -	Project Total	$ -

Expenses Submitted

Date Submitted	Amount Requested	Amount Approved	Date Approved

Match Funds Reported

Date Reported	Match Amount	Reporting Period	Total Reported
			$0.00
			$0.00
			$0.00
		Total Reported	$ -

The proposal seeks funding to continue work previously granted GIVF funding that created a web-based analysis library and software tool/portal for clinicians and medical researchers gathering HIV data. The project is a collaboration among faculty at Clarke, UIHC, the University of Wisconsin Hospitals and Clinics, Stanford University School of Medicine and physicians at Dubuque Internal Medicine. The additional funding will allow Clarke to use the software, hardware and research tools developed to design and implement an Iowa clinical ontology in collaboration with a Dubuque clinician. The ontology will enable patients and clinicians to obtain statistical analysis related to patient health conditions by taking advantage of electronic medical records. The researchers believe the proposal will enhance the development of health informatics services in Iowa and plan to license the software product. The researchers propose to work with the Small Business Administration to develop a strategy promoting a medical informatics center in Iowa.

Upper Iowa University	Award $	55,279.00	Budgeted Match $	611,548.00	Project Budget	$	666,827.00
Total GIVF Reimbursements Approved:		$27,640.00	Reported Match: $	5,750.00	Project Total	$	33,390.00

Expenses Submitted

Date Submitted	Amount Requested	Amount Approved	Date Approved
12/23/10	$27,640.00	$27,640.00	12/23/10

Match Funds Reported

Date Reported	Match Amount
12/13/2010	$5,750.00

Reporting Period	Total Reported
	$33,390.00
	$0.00
	$0.00
Total Reported	$ 33,390.00

The proposal seeks funding to accelerate a business development program funded in part by the University's Upper Iowa Business Development (UIBD) grant program. The UIBD is a $570,000 endowment created in 2007. The program supports economic development initiatives including a grant program for entrepreneurs interested in starting or expanding a business in Fayette, Iowa. Local business applicants are evaluated based on their business plan, growth potential, impact on job creation, and sales and taxes generated. Applicants are provided business development assistance and entrepreneurship mentoring through the University's e-Center and are advised about other sources of funding or tax credits. Funding provided the applicants may be used for research and development or commercialization of a product, marketing or advertising or construction and renovation expenses. Applicants are evaluated by a UIBD Grant Advisory Committee which includes representatives of local and regional economic development organizations. Applicants are required to provide a minimum of 20% cash match.