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### **GROW IOWA VALUES FUND PROPOSALS**

**Action Requested:** Consider approval of Regent universities' FY 2008 Grow Iowa Values Fund (GIVF) proposals.

**Executive Summary:** The 2005 Iowa General Assembly appropriated \$5 million annually through FY 2015 to the Board of Regents through the GIVF administered by the Iowa Department of Economic Development. The funds are for capacity-building infrastructure in areas related to technology commercialization, entrepreneurship, and business development for the purposes of state economic development. Each of the universities has submitted a proposal for how it will direct a share of these appropriations in FY 2008 which is the third year of funding under the program. Appropriations require a one-to-one funding match by the universities. The FY 2008 proposals from the universities total \$4.8 million. An amount of \$200,000 is reserved for the Board to allocate to research and commercialization projects submitted by private colleges and universities.

The universities' proposals are summarized in this memo. Complete proposals, including information on matching fund sources and evaluation methods, are included in the Regent Exhibit Book.

#### **Iowa State University: \$1.925 million**

Iowa State University proposes to allocate FY 2008 GIVF funds in a manner consistent with that used in FY 2007 in which funds were focused in two primary areas: 1) Infrastructure and Entrepreneurial Culture and 2) Commercialization Competitive Grants.

Metrics used to evaluate the effectiveness of efforts in both areas will include:

- new businesses created based on ISU technology,
- sales and employees of companies created with or utilizing ISU technology,
- product and process improvements at companies based on ISU technology,
- technologies licensed to companies with an Iowa presence, and
- collaborative research projects with Iowa companies.

Organizations and university units receiving funding will be required to provide matching funds on a one-to-one basis.

#### **Infrastructure and Entrepreneurial Culture (\$875,000)**

ISU proposes to allocate \$875,000 to further develop the infrastructure that will support the staff and activity required to grow, improve and sustain the technology transfer/commercialization efforts at ISU. Funds will be allocated to the following units:

- Pappajohn Center for Entrepreneurship: \$200,000 to provide private sector consultants and market research for startup companies and to provide staff to assist entrepreneurial efforts by faculty and students.
- ISU Research Park: \$200,000 to provide startup companies with a reduced-cost environment, to market opportunities at ISU to existing technology companies nationwide, and to actively assist growth by current tenant companies.

- Institute for Physical Research and Technology: \$100,000 to provide staff to identify developing technologies with commercial potential.
- Vice-Provost for Research: \$375,000 to the Vice Provost for Research office to fund opportunistic commercialization projects during the fiscal year, to fund a project related to the Battelle Advanced Food and Feed platform, to promote collaborative relationships between ISU and Iowa companies, and to coordinate collection of commercialization performance data.

Commercialization Competitive Grants Program (\$1.050 million)

ISU proposes to allocate \$1.050 million to build and sustain a larger pipeline of projects utilizing ISU-developed technology. A Request for Proposals process was used campus-wide to obtain proposals for the development of innovations with commercial potential and to support the expansion of existing companies which will contribute significantly to the Iowa economy.

Ten projects involving Iowa companies have been selected from among those submitted under the RFP and are proposed to be funded. Examples include:

- \$82,437 to assist the Sirrah, LLC company at the ISU Research Park to further optimize ground-breaking replicon particle-based vaccines against porcine respiratory and reproductive syndrome which currently costs the pork industry more than \$600 million annually. In addition to cost-share support from ISU, the project is supported by a \$69,484 grant from the Iowa Pork Producers Association.
- \$150,444 to a project partnering three ISU researchers and the BioProtection System Corporation to develop novel vaccines against pneumonic plague. Using recombinant proteins and nanotechnology, the group proposes to develop vaccines that can be used at lower doses and perhaps protect military forces and citizens from airborne pathogens with only a single dose. In addition to ISU cost-share, the project is supported by \$100,000 cost share from BPS.
- \$93,775 to a project partnering two ISU researchers and Grain Processing Corporation of Muscatine to develop uses for the lignin which is a by-product of the cellulosic ethanol process. The project will explore the use of lignin as a soil stabilization agent in construction of highway roadbeds. In addition to ISU cost-share, GPC will contribute in-kind support of \$20,000 and the Iowa Highway Research Board has committed \$50,000 in funding.
- \$86,814 to a project partnering an ISU researcher, Goodrich Corporation-Turbine Fuel Technologies of West Des Moines and Spectral Energies, LLC of Ames to develop laser-based diagnostic tools for a new generation of power industry combustion systems. The diagnostic tools will help the companies determine the viability of biofuels in modern combustion systems in the power industry. In addition to ISU cost-share, Goodrich and Spectral are providing \$27,000 and \$30,000, respectively, in cost-share.
- \$149,233 to a project partnering five ISU researchers and the POET Corporation to optimize the technique of converting uncooked, dry-grind corn to ethanol without gelatinizing the starch and denaturing protein. The process is expected to improve the yield of ethanol from corn from 2.75 gallons per bushel to 3.00 gallons per bushel and to yield a high-value protein with properties suitable for making biodegradable plastics. In addition to ISU cost-share, POET has committed \$284,000 in cost share over two years.

**University of Iowa: \$1.925 million**

The University of Iowa proposes to allocate funding in two principal phases tied to building the capacity for technology transfer and fostering entrepreneurship and growth of new companies.

For both phases, matching funds will be secured from outside sources including licensing revenues, industry and University startup funding, developer funding of the BioVentures Center facility, TIF funds from the city of Coralville, revenue from leases at the Oakdale Research Park, and recruitment packages. Evaluation metrics will include:

- Reported total related jobs in Iowa.
- Reported total earnings.
- Collaborations with Iowa-based industry.
- New federal small business initiative applications and awards.
- Intellectual property created and licensed.
- Annual increases in taxable company revenues from identified firms.

Phase 1, ISTART- Iowa Startup and Entrepreneurship Fund (\$1.5 million)

Over the past five years, employment with companies affiliated with the SUI Technology Innovation Center and Oakdale Research Park has increased by 63%. Phase 1 features funding support for commercialization opportunities based on SUI intellectual property, with priority given to private sector partnerships that promise job and business initiation and expansion in Iowa, especially in key biosciences and other areas identified by the Battelle study. Examples of qualifying projects include:

- Collaborations between the University and private sector companies for “proof of concept” support for commercialization of intellectual property.
- University and private sector development of startup companies related to SUI intellectual property.
- Development of new incubator space and further upgrades of facilities at the College of Pharmacy’s Center for Advanced Drug Development.
- Expansion of services at the John Pappajohn Entrepreneurial Center and personnel support for the IOWA Centers for Enterprise.

Phase 2, IGROW-Iowa Growth and Development Fund (\$425,000)

Funding in this category is designed to foster high-tech entrepreneurship and to build new networks of technical, financial, and business capabilities to sustain growth of new companies. Examples of projects qualifying for funding include:

- Recruitment of new entrepreneurial faculty who will also be relocating or creating new companies in Iowa in key bioscience areas.
- Infrastructure support for entrepreneurial research activities and translational research.

**University of Northern Iowa: \$950,000**

The University of Northern Iowa proposes to allocate \$950,000 in five project areas. Matching funds will be required of organizations and university units receiving the funding on a one-to-one basis. Specific metrics will be required in each project area and will include the following:

- intellectual property disclosures and licenses,
- new business incubator tenants,
- new rural development regional organizations rolled out,
- community leaders and entrepreneurs trained,
- market research feasibility projects with Iowa companies and entrepreneurs, and
- number of companies involved in biobased lubricants fee-based testing and development.

Technology Transfer and Business Incubation (\$320,000)

UNI will open its new incubator for technology transfer projects and a new incubator for student businesses. The Office of Technology Transfer and the Regional Business Center will launch a campus-wide MyEntreNet initiative among student, faculty and staff. The successful competitive research grant program will be continued.

Rural Entrepreneurship (\$200,000)

Continued support will be provided for the twelve counties currently involved in the MyEntreNet program and to expand the program in collaboration with other partners including the community college system, IDED, ISU Extension and the Small Business Development Centers. This will allow as many as eight new regions to be rolled out in the spring of FY 2008. Funding will also be used to develop a new online Webinar technology featuring interactive videoconferencing to better serve rural entrepreneurs.

Market Research (\$110,000)

Primary emphasis will be toward assisting UNI's technology transfer and business incubation projects. Market research project costs will be split between GIVF funding and the client. Market research will be focused in five areas, including: Iowa companies, statewide associations and local governments, market research consultations and plans, UNI's technology transfer program, and marketing and education projects.

Regional Development (\$130,000)

The Institute for Decision Making (IDM) will provide planning and technical service to regional-based development organizations to allow them to better focus their resources for efficiency and effectiveness. IDM staff will be quasi-staff members to three rural regions: Northeast Iowa Business Network, Off-Shore Iowa, and Western Iowa Advantage. IDM will also create a practical community workforce program that assists communities to implement strategies to avert mass layoffs and proactively respond when a layoff or a closing occurs. The new program would complement the Iowa Workforce Development's services in these areas.

National Ag-based Lubricants (NABL) Center (\$200,000)

NABL is one of the best-equipped biolubricants and biofuels testing and research facilities in the country. In FY 2008, NABL will use this expertise to support the biofuels industry by offering fee-based biodiesel and ethanol testing services. NABL will add equipment to expand the number of ASTM tests for biodiesel fuels. NABL will also address several current challenges in biolubricant manufacturing including oxidation stability, cold temperature flow properties, and storage stability.