

MICHIGAN INITIATIVE FOR INNOVATION & ENTREPRENEURSHIP

First-Round Winners of MIIIE Grants

July 16, 2008

TECHNOLOGY COMMERCIALIZATION FUND

Using Carboxylic Amides as Antimicrobial Agents (\$114,738)

Grand Valley State University

Principal Investigators: Roderick Morgan, Robert Smart

Grand Valley researchers have discovered that the telomerase inhibitor BIBR 1532 has the potential for development as an antibiotic to treat drug-resistant bacterial infections. The university filed a patent in February and will use the MIIIE grant to conduct a series of proof-of-concept studies.

Rapid CD4 Testing for HIV Monitoring (\$10,000)

University of Michigan

PI: Wayne Harvey

The researchers propose to develop an inexpensive, handheld diagnostic device to quickly conduct CD4+ white-blood-cell counts in HIV/AIDS patients. The device would be especially useful in places like sub-Saharan Africa and India, where the absence of such a tool is considered a major limitation to treating HIV/AIDS patients.

Development and Optimization of a high-volume production process for printed electronic circuits (\$125,093)

Western Michigan University

PI: Margaret Joyce

Printed flexible electronics is defined as the printing of electronic devices onto paper, film or other flexible substrates. Western Michigan researchers will use the MIIIE grant to build a printing system that measures the production gains delivered by a printing technique called calendaring.

**Biodegradable Plastics from Protein and Polysaccharide Carboxylates:
Manufacturability Studies (\$83,000)**

Saginaw Valley State University

PI: Christopher Schilling

Scientists at Saginaw Valley State University recently discovered a novel and economical procedure to synthesize biodegradable plastics from a variety of agricultural and forestry residues, including corncobs, sawdust, sugar beet pulp, soybean protein, and ethanol distiller's grain. The grant will be used to design and perform manufacturing tests.

CMMG Commercialization Center (\$100,000)

Wayne State University

PI: Dr. Jeffrey Loeb

The grant will be used to create a Commercialization Center within Wayne State's Center for Molecular Medicine and Genetics (CMMG). The center will help Wayne State scientists identify commercially viable technologies and rapidly develop them into marketable products.

INDUSTRY & ECONOMIC ENGAGEMENT FUND

**Partnership to Engineer Materials for High-Efficiency Thermoelectric Power
Generators (\$65,000)**

Michigan Technological University

PI: Peter Moran

Michigan Tech researchers will form a partnership with Tellurex Corp. of Traverse City to assess techniques for producing thermoelectric-element materials developed at the university. Under the partnership, Michigan Tech materials science and engineering students will be trained to meet the needs of the private sector.

**Imaging the Future: Revitalization of Mid-Michigan Companies Through Deep
Strategic Change (\$70,000)**

Michigan State University

PI: Shawnee Vickery

Michigan State researchers will help mid-Michigan companies revitalize their business models so that they are better equipped to compete in today's marketplace. Seven companies will participate in a three-step process: identifying future challenges, updating

current strategies and/or defining new strategies, and assessing the impacts of key executives and strategic partners.

Engineering Development of Future Generation Wireless Integrated Systems for Point of View Wearable Video Systems with V.I.O. (\$100,000)

Michigan Technological University

PI: Paul Bergstrom

Researchers will develop a compact, wireless "wearable video" system that could be used by the military for tactical reconnaissance and battlefield awareness. Michigan Tech researchers will partner with V.I.O. Inc. of Marquette and their third-party design-and-engineering company, Twistthink of Holland. V.I.O. is already marketing a "ruggedized wearable video capture solution" called POV.1. The partnership will lead to future POV (Point of View) video systems.

U-TEAMED Expansion to FSU and LSSU (\$40,000)

Michigan Technological University (lead), Ferris State University, Lake Superior State University

PI: Jim Baker

Ferris State University and Lake Superior State University will be added to the existing U-TEAMED partnership, which assists universities that lack established technology transfer or commercialization programs. Currently, U-TEAMED is a collaboration between Central Michigan University, Eastern Michigan University, Michigan Technological University and Oakland University.

Michigan Functional Design Incubator – Phase I (\$50,000)

Central Michigan University

PI: Tanya Domina

This project will establish the Michigan Functional Design Incubator to work in partnership with Michigan-based apparel and textile companies to increase profitability and competitiveness. The program will make use of Central Michigan's state-of-the-art technology in body scanning, thermography and environmental simulation.

Northern Michigan Business and Industry Center (\$65,000)

Northern Michigan University

PI: Rajib Sanyal

Northern Michigan University, in cooperation with Northern Initiatives and the Lake Superior Community Partnership, proposes to establish the Northern Michigan Business

and Industry Center. The goal is to advance Michigan's rural economy by offering business formation and development services for the region.

Product Commercialization & Manufacturing Center (\$60,000)

Lake Superior State University

PI: Eric Becks

The new center will leverage the university's regionally unique factory automation, robotics and machining capabilities. It will enable entrepreneurs and businesses to participate in the manufacturing process, guided by experienced staff and faculty; to obtain employee training; and to explore production efficiencies and possible design changes.

TALENT RETENTION & ENTREPRENEURSHIP EDUCATION FUND

Haworth College of Business Center for Entrepreneurial Studies and Innovation (\$77,500)

Western Michigan University

PIs: Kenneth O'Shaughnessy, Michael Sharer

The center will function as an umbrella organization, bringing entrepreneurs, faculty, students and business executives together with early-stage technologies. The center will provide internships and student classroom projects to enhance the development of university intellectual property.

Entrepreneurship Education in Flint (\$76,500)

University of Michigan – Flint

PI: Yener Kandogan

The School of Management will hire a fulltime entrepreneur-in-residence who will teach existing entrepreneurship courses while working with other faculty members to develop new courses that may lead to the creation of undergraduate- and graduate-level entrepreneurship programs. Students will engage in entrepreneurial activities outside the classroom, as well.

Entrepreneurship Academic Program (\$50,000)

Wayne State University

PI: Richard Beltramini

The School of Business Administration proposes a multi-part, integrated academic program in entrepreneurship education and talent retention. The new program seeks to

expand the university's innovative student-run advertising agency at TechTown to work with new business start-ups.

CentTILE Entrepreneur Education and Development (CEED) (\$40,000)

Michigan Technological University

PI: Robert Mark

Michigan Tech's Center for Technological Innovation, Leadership & Entrepreneurship (CentTILE) will collaborate with local business and economic development organizations on a multi-faceted student-oriented program to enhance entrepreneurial development activities.

Entrepreneurship Internship Program (\$80,000)

Michigan State University (lead), Central Michigan University, Saginaw Valley State University, University of Michigan -- Flint, Mid-Michigan Innovation Center

PI: Loraine Hudson

This student internship program will match students with businesses throughout the region. The program will include a Virtual Boot Camp: an intensive computer-based course addressing all elements of business plans and the funding process. The main goals are to encourage higher rates of entrepreneurship and to increase the retention of the region's most talented students.

CMU Entrepreneurial Engagement Program (\$22,000)

Central Michigan University

PI: Janine Janosky

Project activities will include new multidisciplinary courses in entrepreneurship, student internships in entrepreneurship and technology commercialization, and the creation of a student entrepreneurship award.

The Launch Pad (\$45,000)

University of Michigan -- Flint

PI: Joel Rash

The Launch Pad will stimulate the creation of student-owned businesses in Genesee County. With strong programs in engineering, computer science, management nursing and other key fields, there is fertile ground to help students see themselves not just as future employees but as entrepreneurs.

MI-SBTDC/EMU Entrepreneurship Student Internship Program (\$60,200)
Eastern Michigan University
PI: Richard King

Eastern Michigan University entrepreneurship interns will complete projects at Michigan companies under the supervision of senior staff members from the Michigan Small Business & Technology Development Center. The program provides entrepreneurship students with practical experience while developing relationships with some of southeastern Michigan's fastest-growing companies.

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