

MICHIGAN INITIATIVE  
FOR INNOVATION & ENTREPRENEURSHIP

*Foundation for a New Economy*

**MIIE Recipients Spring-Summer 2009**

**INDUSTRY & ECONOMIC ENGAGEMENT FUND**

An investigation of Synergetic Effects between Various Hydride Phases in Hydrogen Storage Materials

Wayne State University

\$61,576

Lori Simoes, Yi Liu, Kwo Young

Central Michigan University Research Services

Central Michigan University

\$17,450

Robert Brentin, Janine Janosky, Scott McNaught, Brad Swanson

Development of a Trilateral Partnership Between Michigan Tech, AVL, and GM with an Integral Laboratory to Explore and Incubate Innovative Powertrain and Instrumentation Concepts

Michigan Technological University

\$100,000

John Diebel, Jeremy Worm, Jeffrey Naber, Jason Biough; Gred Hopton (AVL)

Enhancing Commercialization of Low-Energy X-ray Food Irradiation

Michigan State University

\$80,256

Sanghyup Jeong, Bradley Marks, Elliot Ryser

**TALENT RETENTION & ENTREPRENEURSHIP EDUCATION FUND**

E2 Challenge – Summer Student Start-up Company Formation Program

Wayne State University

\$100,000

Eric Stief

Empowering The Next ENTrepreneurial GENeration (EnGen) in Mid Michigan

University of Michigan-Flint (lead institute), Central Michigan University, Michigan State University,  
Saginaw Valley State University (with Kettering University)

\$35,000

John Callewaert

Innovation and Entrepreneurial Leadership Initiatives

Lake Superior State University

\$8000

Ken Hemming, Carol Andary, Valerie Filek and Linda Schmitigal

The Entrepreneurship Academy at Northern Michigan University

Northern Michigan University

\$25,000

Cynthia Prosen and Fred Joyal

Student-led Consulting Services for Business Development, Talent Retention and Entrepreneurship  
Michigan Technological University  
\$35,000  
Jim Baker, Robert Mark and Jonathan Leinonen

## **TECHNOLOGICAL COMMERCIALIZATION FUND**

### **Life Sciences Projects**

Development and Validation of a zRT-PCF Classifier for Lung Cancer Prognosis  
University of Michigan  
\$41,674  
Wayne Harvey and David Beer

Flex Dex Surgical Device  
University of Michigan  
\$63,427  
Wayne Harvey, Shorya Awtar and James Geiger

Commercialization of Pathway Express  
Wayne State University  
\$50,000  
Anne DiSante and Sorin Draphici

Photon Affinity - Commercialization of a novel photonic crystal instrument for detecting intermolecular binding  
University of Michigan  
\$79,950  
Wayne Harvey, James Baker, Theodore Norris, Jing Yong Ye, and David Olson

Translational development of a hydrogel for tendon repair  
Michigan Technological University  
\$28,075  
Michael Morley, Ryan Gilbert and Jagi Gill

Pre-clinical development of non-covalent proteasome inhibitors for the treatment of multiple myeloma  
Michigan State University  
\$57,500  
Mike Poterala, Jetze Tepe, Justin McCormick and Thomas Collet

TruEnamel - Synthetic Dental Enamel  
University of Michigan  
\$59,430  
Wayne Harvey and Brian Clarkson

## **Physical Sciences Projects**

Commercialization of welding process monitoring system

University of Michigan

\$86,700

Andrew McColm, Jyoti Mazumder, Lijun Song and Seung Hwan Lee

High Performance Insulation using Agricultural Waste Byproduct

University of Michigan

\$88,700

Andrew McColm, Richard Lane and Min Kim

Development of a Hydrophobic Coating and Application to Stamp Sand

Michigan Technological University

\$62,512

Jim Baker, Jiann-Yang Hwang, Domenic Popko and Bowen Li

High-Performance Sustainable Polymer Composites for Packaging

Michigan State University

\$80,000

Brad Shaw, Krishnamurthy Jayaraman, Karen Bantel and Tie Lan (Nanocor, Inc)

Thermally Stable, Volatile Atomic Layer Deposition Precursors for Transition Metal Oxide Thin Films for the Semiconductor Industry

Wayne State University

\$125,175

Lori Simoes and Charles Winter

Self-Healing Polymers and Coatings

Eastern Michigan University

\$19,993

Brian Anderson, Philip Rufe and Jamil Baghdachi

Prototype Development and Market Research for Targeted Products using MSU-UM-Patented Joining Technology

Michigan State University

\$49,713

Brad Shaw, David S. Grummon, John Schwartz, Roger Calantone, Xueling Fei, and John Shaw

Engineered Biobased Curable Coatings for Wood, Metals, and Bioplastics

Michigan State University

\$100,000

Brad Shaw and Ramani Narayan