### Mizzou Advantage Proposals Awarded

Spring, 2010

In response to the initial Mizzou Advantage RFP for network and fellow proposals, seventy-eight submissions were received. Twenty-six proposals were funded, with PIs and Co-PIs representing Agribusiness, Agricultural Economics, Agroforestry, Animal Sciences, Art and Archaeology, Arts and Humanities, Biochemistry, Bioenergy Engineering, Biological Engineering, Biological Sciences, Biology, Biotechnology, Business, Chemistry, Civil and Environmental Engineering, Computer Sciences, Convergence Journalism, Dermatology, Economics, Education, Electrical and Computer Engineering, Energy Management, English, Forestry, Genetics, Geography, Health Policy, Informatics, Informational Science and Learning Technologies, Internal Medicine, Journalism, Journalism Library, Law, Library, Management, Marketing, Medical Pharmacology and Physiology, Molecular Microbiology and Immunology, MU Power Plant, Neurology, Nutrition and Exercise Physiology, Ophthalmology, Pathology, Philosophy, Physics, Plant Sciences, Psychological Sciences, Psychology, Public Affairs, Radiology, Science Journalism, Sociology, Statistics, Surgery and MMP, Surgical Oncology, Veterinary Medicine, Veterinary Neurology, and Veterinary Pathobiology.

The network proposals involve activities that will build relationships, seed new and productive collaborations, and deepen MU's presence in each of the five initiatives. These activities will forge relationships among departments, individual faculty, and external collaborators who are working on related topics in the broad initiative areas, and who are not now working together. Ideally, these collaborations will enhance the work of all and perhaps open new opportunities that no one person or center could pursue alone. Eleven network proposals were awarded.

The fellow proposals have a very different orientation: they are for grants that will seed substantive research, education, service, or economic development projects in the initiative areas—to build the foundation for future activities in Mizzou Advantage. These grants will bring together PIs and other collaborators from around the campus and/or from outside campus in innovative ways that enhance opportunities for major efforts in the future. The fellows' grant projects are building the substantive foundation for future successes—for our goal of enhancing MU's existing prominence in the five areas. Fifteen fellow proposals were awarded.

It is important to emphasize that the two proposals are complementary, and both are essential foundations for the success of the Mizzou Advantage.

A list of awarded proposals follows.

#### FELLOW PROPOSALS AWARDED

## The Architecture of Collaboration: Defining Networks, Developing Methods

Kate Anderson, Mary Barile, Bill Bondeson, Roger Gafke, Jeni Hart, Lindsay Leonhard, Tim Matisziw, Jack Schultz, Yi Shang, Chi-Ren Shyu, Douglas Steinley, John Wedman, Randall Westgren Disruptive/Transformational Technology; Food for the Future; New Media; One Health, One Medicine; Sustainable Energy

Bioenergy Plantations: An Integral Part in the Sustainability Of The Biomass Supply Chain
John Dwyer, Shibu Jose, Gary Stacey, Francisco Aguilar, Hank Stelzer, Gene Garrett, Greg Coffin,
Paul Hoemann, Dusy Walter, Felix Fritschi, Mark Coggeshall, Jim Houx

Sustainable Energy

# Biomass Supplies in the US Midwest: An Integrated Geospatial Assessment of Environmental and Economic Impacts

Ciuzhen (Susan) Wang
Disruptive/Transformational Technology; Sustainable Energy

### **Cancer Drug Development Center Automated Radiopharmaceutical Technology**

Timothy Hoffman

One Health, One Medicine

## Clinical Interaction Between Stress, Diet, Genetics, and Inflammation in the Etiology Of Autism

David Beversdorf, Matthew Will, Kevin Fritsche
One Health, One Medicine

# Corporate Governance: The Role of the Board of Directors in Understanding and Managing Disruptive and Transformational Technologies

Elaine Mauldin, Karen Schnatterly Disruptive/Transformational Technology

### **Developing and Validating Emission Models for Commercial Swine Finishing Barns**

Teng Lim, Albert Heber, Jiqin Ni Food for the Future; One Health, One Medicine

### Early Breast Cancer Detection Using Novel Optical Imaging Techniques

Ping Yu
One Health, One Medicine

# Metagenomics Use at a Former Coal Mining Environment to Bio-Prospect for Enzymes with Applications to Sustainable Energy

Gary Stacey, Melanie Mormile

Sustainable Energy

## Modeling Childhood/Adolescent Obesity in a Pig

Frank Booth, Jamal Ibdah, James Perfield, Cuihua Zhang
One Health, One Medicine

# **Opportunistic Discovery of Information**

Sanda Erdelez, Guilherme DeSouza, Chi-Ren Shyu, Antonie Stam, Kevin Wise Disruptive/Transformational Technology; New Media

### **Realistic Decision-Making**

Ann Bettencourt, David Mandy, Andrew Melnyk

Disruptive/Transformational Technology

### Targeting Plasminogen Activator Inhibitor-L to Inhibit Neointimal Hyperplasia

William Fay, Mayank Mittal, Douglas Bowles
One Health, One Medicine

# A Twenty-First Century Program in Cancer Research: Targeting Metastatic Cancer Cells to Improve Diagnosis and Therapy

John Viator, Scott Holan, Mark Hannink, Paul Dale, Stephen Alexander
One Health, One Medicine

# Whole Genome Sequencing of an Animal Model of Cerebral Cortical Dysplasia: Developing The Next Generation of Genomics for Human and Animal Health

Dennis O'Brien, Gary Johnson, David Lardizibal, Bob Schnabel, Jerry Taylor One Health, One Medicine

#### **NETWORK PROPOSALS AWARDED**

#### **Communication Markets**

Esther Thorson, Murali Mantrala Disruptive/Transformational Technology

### **The Dark Archives Project**

Denice Adkins, Kate Anderson, Brian Brooks, John Budd, Dorothy Carner, Stephanie Craft, Charles Davis, Debra Mason, Earnest Perry, Richard Reuben, Lilliard Richardson

Disruptive/Transformational Technology

### **Food and Society Speaker Series**

LuAnne Roth Food for the Future

### Food, Fuel and Society

Bill Allen, Steve Borgelt, David Brune, Mike Dunn, Mary Henderickson, Marc Linit, Domingo Martinez, Mike McKean, Frank Morris, Keith Politte, Janet Saidi, Pat Westhoff, Handy Williamson Food for the Future; New Media; Sustainable Energy

### Mizzou Advantage in Reproduction Biology

Matt Lucy, Randy Prather Food for the Future; One Health, One Medicine

### One Health, One Medicine, One Community Network

Karen Edison
One Health, One Medicine

### **Print for the People**

Devoney Looser, Berkely Hudson, Michael Holland

Disruptive/Transformational Technology; New Media

### Proposal to Establish Evolutionary Studies and Science Studies on Campus

Stefani Engelstein, Heidi Appel, Andre Ariew, Noah Heringman, Mark Smith Disruptive/Transformational Technology; Food for the Future; New Media; One Health, One Medicine

### Regional Symposium on Molecular Biophysics: Single-Molecule Analysis of Macromolecules

Gerald Hazelbauer, John Tanner, Kevin Gillis, Stefan Sarafianos, Gavin King, Thomas Quinn Food for the Future; One Health, One Medicine; Sustainable Energy

# Symposium and Faculty Workshop on Integrin Signaling in Physiology and Disease

Anand Chandrasekhar, Michael Hill, James Lee, Gerald Meininger, Sharon Stack, Gary Weisman
One Health, One Medicine

### Symposium on Building Networks for the Center for Translational Neuroscience

Douglas Anthony
One Health, One Medicine