

University Research Grants Awarded to New Faculty

University Research Grants provide “seed money” to begin research or scholarship that is expected to continue developing and to attract funding from other sources beyond the period covered by the “seed” funding. Eligibility was restricted to faculty/staff members who have joined ISU on or after July 1, 2001.

To Byron Brehm-Stecher, FSHN, *Multiplexed Detection of Foodborne Pathogens*

To Matt Ellinwood, An Sci, and Anumantha Kanthasamy, BMS, *Assessment of G_{M2} Ganglioside in the Pathogenesis of Murine MPS IIIB*

To Jason Gillette, HHP, *Optimization of Sit-to-Stand Movements for Elderly Individuals and Individuals with Total Knee Replacements*

To Jesse Hostetter, Vet Path, and Michael Wannemuehler, VMPM, *Development of an Animal Model to Evaluate the Role Mycobacterium avium subspecies paratuberculosis in the Pathogenesis of Inflammatory Bowel Disease*

To Amy Kaleita, ABE, *Analysis of Temporal Stability and Consistency of In-field Soil Moisture Patterns*

To Zhiqun Lin, MSE, *One-step Formation of Novel Gradient Concentric Ring Patterns for Magnetic Data Storage Applications*

To Gustavo MacIntosh, BBMB, *Role of RNA Catabolism During Embryogenesis*

To German Mora, Ge Atmos Sci; Matt Helmers, ABE; and Heidi Asbjornsen, NREM;

Belowground Water Dynamics under Contrasting Annual and Perennial Plant Communities in an Agriculturally-Dominated Landscape

To Lori Norton-Meier, Curr & Instr, *The Science Writing Heuristic (SWH) and the Young Child: A Study of Language Development and Science Understanding for Kindergarten Students in SWH Classrooms*

To David Wong, VCS; Brett Sponseller, VMPM; and Doug Jones, Vet Path; *Comparative Functional Analysis of Adult and Juvenile Equine Dendritic Cells*

To Qingze Zou, ME, *High-Speed Nanopositioning of Atomic Force Microscope with Application to Combinatorial Science*

**Research Compliance Corner:
Guidance for Projects Involving Animals**

Dr. Joan Hopper is the attending veterinarian (AV) for the animal care and use program at ISU. According to federal regulations and guidelines, the main responsibility of the AV and the clinical veterinary staff of the Office of Laboratory Animal Research (LAR) is to provide for the health and welfare of animals involved in research, teaching and testing. As part of this responsibility, the AV and clinical veterinarians must pay particular attention to the following areas in protocols submitted to the Committee on Animal Care for review and approval:

- The selection and use of suitable anesthetic, analgesic agents and methods of euthanasia;
- Appropriate species selection for research projects; and
- Proper performance of surgical procedures and adequate pre-operative, surgical and post-operative care.

Dr. Hopper and the clinical veterinarians are available to discuss individual studies with investigators, including the design and implementation of study proposals. Collegial exchanges between the investigator and the clinical veterinarians, prior to

submission of a proposal to the COAC, may address many of the committee's concerns and expedite the review process.

In addition, LAR may know of available equipment, collaborators, or facilities that may be helpful to your research. Finally, they can help you get started on the training required by the federal regulations for investigators involving animals in research, teaching and testing. For more information contact: Laboratory Animal Resources (4-8507); Kathy Mullin (4-2873; kmullin@iastate.edu) or Hans Coetzee (4-7012; hcoetzee@iastate.edu).

Recent Sponsored Funding Awards

April 22, 2005

- To Maynard Hogberg and Greg Palas, An Sci, *Dairy Records Management System* from North Carolina State University, \$595,000
- To Bo Su, Math, *Some Problems in Applied Nonlinear Partial Differential Equations* from the National Science Foundation, \$42,432
- To Radford Davis, VMPM, *Agriculture Security: Development of a Course for the Naval Postgraduate School's MA in Homeland Defense and Security* from Military Personnel Services Corporation, \$113,362
- To John House and Maria Corsi, IEC, *The National Building Controls Information Program* from the University of California, \$400,000
- To Wendy White, FSHN, *High Beta-Carotene Maize to Alleviate Vitamin A Deficiency in Sub-Saharan Africa* from the International Center for Tropical Agriculture, \$102,363
- To Robert Burns and Hongwei Xin, ABE, *Ammonia Monitoring Project* from Tyson Foods, Inc., \$399,525
- To Amy Andreotti, BBMB, *Structural Studies of a T cell Specific Tyrosine Kinase* from the National Institutes of Health, \$323,880
- To Robert Lipert, ICD, *Detection System for Weapons of Mass Destruction* from Concurrent Analytical, Inc., \$200,000
- To Tong Wang, FSHN, *Mechanism of Oxidative Stabilization of Soy Flour by Extruding-Expelling Processing and Shelf-Life of Various Soy Products* from Heartland Fields, LLC \$21,113
- To Xueyu Song, Chem, *Phase Behaviors and Nucleation Kinetics of Protein Solutions* from the National Science Foundation, \$105,000
- To Xiaoqiu Huang, Comp Sci, *Development of the PCAP Program* from Washington University School of Medicine, \$85,960
- To Shankar Subramaniam, ME, *Developing New Mathematical Models for Multiphase Flows Based on a Fundamental Probability Density Function Approach* from the Department of Energy, \$85,000
- To Ying Cai and Wallapak Tavanapong, Comp Sci, and Carey Novak, IPRT Company Assistance, *Efficient Processing of Continuous Queries for Spatial Cue* from the ISU Research Park, \$21,700
- Christine Petersen, Vet Path, *Trypanosoma Cruzi-Elicited Cardiac Hypertrophy* from the National Institutes of Health, \$79,656
- To Dirk Reiners, Comp Sci, and Carey Novak, IPRT Company Assistance, *Evolving VR Juggler for Production Use* from the ISU Research Park, \$22,900
- To Arnold Vandervalk, EEOB, *Interim Loxahatchee Impoundment Landscape Assessment Site Management* from South Florida Water Management District, \$4,500

Some Research to Directly Benefit the State of Iowa:

- To JaneAnn Stout, Ext to Fam, and Donnie Broshar, Ext to Youth, *Strengthening Iowa Communities for At-Risk Children, Youth and Families* from the USDA, \$134,000
- To Alicia Carriquiry, Stat, *A Bayesian Spatial Analysis of Traffic Accident Data in Iowa* from the Iowa Department of Transportation, \$39,985
- To Gayle Luze, Susan Hegland, and Carla Peterson, HDFS, *Quality Preschool Program Standards Evaluation* from the Iowa Department of Education, \$44,885

Funding opportunities may be found at <http://www.vpresearch.iastate.edu/Funding/homepage.html>

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