

**NKU, OFFICE OF RESEARCH, GRANTS, AND CONTRACTS**  
**PROPOSALS SUBMITTED**  
**FISCAL YEAR 2008 (JUNE)**

Department	Principal Investigator	Project Title	Funding Agency	Submission Date	Project Duration	Amount Requested
Admissions - Outreach	Carmen Myrick	Governor's Minority Student College Preparation Program	Gateway Community and Technical College	06/25/2008	6/1/08 - 6/30/08	\$5,000  2008-174

This project will provide for educational programs and services of a special nature for minority students in order to change their aspirations and reduce high school dropout rates, prepare them for admission to and graduation from colleges and universities, and improve the recruitment of such students to Northern Kentucky University.

Associate Provost for Information Technology	Timothy Ferguson	Economic Security - The Internet Highway	National Institute of Justice	06/12/2008	8/1/08 - 7/31/09	\$313,021  2008-172
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NKU will use its Congressionally directed award to analyze the current state of information security in small to medium sized business within the greater Cincinnati region and state of Kentucky. This information will be used to establish training, curriculum and best practice standards.

Biological Sciences	Hazel Barton	Potential for Metabolic Mutualism through Starvation	Kentucky Biomedical Research Infrastructure Network INBRE	06/06/2008	5/1/09 - 4/30/10	\$65,550  2008-164
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This is a continuation of research supported by the KY-INBRE program. These funds will be used to support cave research activities, including identification and cultivation of microbial species in caves.

Biological Sciences	Kristi Haik Martines	Drug Delivery to the Brain Using Novel Nanoparticles	Kentucky Biomedical Research Infrastructure Network INBRE	06/06/2008	5/1/09 - 4/30/11	\$216,622  2008-167
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The purpose of this grant is to design nanostructures that cross the blood brain barrier and to test their effectiveness in doing so. The impact of creating structures that can deliver a variety of drugs to the brain without damaging the blood brain barrier could affect millions of people.

Department	Principal Investigator	Project Title	Funding Agency	Submission Date	Project Duration	Amount Requested
Biological Sciences	Joseph Mester	Immunomodulation by Influenza A and Respiratory Syncytial Virus Virions	Kentucky Biomedical Research Infrastructure Network INBRE	06/06/2008	5/1/09 - 4/30/11	\$209,760 2008-166

This research will characterize the immunomodulatory activities of influenza A virus and HRSV virions in specific human immune effector cell types of the monocytic, natural killer, and T cell lineages. Human immune cells will be exposed to virions, and changes in their expression of cytokines, chemokines and co-stimulatory markers will be analyzed by real time polymerase chain reaction (RT-PCR).

Biological Sciences	Eimear Mullen	The Effects of Isoflavones on SREBP-regulated Gene Expression in Vivo	Kentucky Biomedical Research Infrastructure Network INBRE	06/06/2008	5/1/09 - 4/30/11	\$209,760 2008-168
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This project will investigate the effects of consumption of the isoflavone component of soy on cholesterol and triglyceride levels in a mouse atherosclerotic model. Also being investigated is some of the molecular mechanisms by which this lipid lowering effect occurs.

Biological Sciences	Eimear Mullen	The Effects of Soy Isoflavones on Cholesterol Metabolism and SREBP-regulated Gene Expression in Vivo	National Institutes of Health AREA	06/20/2008	4/1/09 - 3/31/12	\$196,650 2008-173
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This research will investigate the effects of consumption of component of soy on cholesterol and triglyceride levels in a mouse atherosclerotic model.

Biological Sciences	Patrick Schultheis	Characterization of P5 Subfamily of P-type Transport ATPases in Mice	Kentucky Biomedical Research Infrastructure Network INBRE	06/06/2008	5/1/09 - 4/30/10	\$71,890 2008-165
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This project involves the expression, subcellular localization, and biochemical characterization of the five members of the P5 subfamily of P-type transport ATPases in mice. Knockout lines for Atp13a1 and Atp13a2 have also been established and will be analyzed to assess the role of these ATPases in whole animal physiology and behavior.

Department	Principal Investigator	Project Title	Funding Agency	Submission Date	Project Duration	Amount Requested
Chemistry	Christine Curran	HFE Screening in Manganese-Exposed and Control Populations	Ctrs for Disease Control and Prevention  University of Cincinnati	06/02/2008	9/1/08 - 8/31/10	\$30,084  2008-153

This project will use existing clinical genetic tests to determine if there is a genetic susceptibility to manganese-induced neurotoxicity.

Chemistry	Stefan Paula	SERCA Inhibition by Hydroquinone Derivatives	Kentucky Biomedical Research Infrastructure Network INBRE	06/05/2008	5/1/09 - 4/30/11	\$209,760  2008-155
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This research will focus on the discovery of hydroquinones as novel enzyme inhibitors. The compounds will be prepared by organic synthesis, tested in activity and binding assays, and analyzed by computational techniques.

Chemistry	Keith Walters	Supramolecular Photochemistry at NKU - an Integrated Undergraduate Research and Education Program	The Camille and Henry Dreyfus Foundation, Inc.  Henty Dreyfus Teacher-Scholar Award	06/23/2008	5/1/09 - 4/30/14	\$60,000  2008-177
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These funds will support three research subjects involving development of new fullerene supramolecular materials, development of new transition metal linkage strategy, and development of tungsten (0) isocyanide high-energy reduction photocatalysts.

CINSAM	C. Dale Elifrits	Sustaining Science Professional Development at the Elementary and Middle Grades	Kentucky Department of Education  2009 Math & Science Partnerships	06/02/2008	9/1/08 - 8/31/10	\$398,062  2008-152
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These funds will be used to expand an existing outreach program that provides support to local elementary and middle grade schools. This project will provide professional development and will model best practices in teaching.

Department	Principal Investigator	Project Title	Funding Agency	Submission Date	Project Duration	Amount Requested
Construction Management	Ed Workman	2008-9 Northern Kentucky University Career and Technical Education Teacher Educators Professional Development	Kentucky Education Cabinet	06/19/2008	7/1/08 - 6/30/09	\$4,000 2008-170

This project will promote career and technical education regionally, statewide, and nationally. Planned activities will increase public awareness of the technical education` opportunities and programs that are available in Kentucky.

Construction Management	Ed Workman	2009 NKU Statewide Leadership Development Initial Teacher Preparation for Teachers Coming Directly from Business and Industry Project	Kentucky Education Cabinet	06/05/2008	7/1/08 - 6/30/09	\$14,000 2008-154
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This project will promote career and technical education regionally, statewide, and nationally. Planned activities will increase public awareness of the technical education opportunities and programs that are available in Kentucky.

Kentucky Campus Compact	Gayle Hilleke	Kentucky Underage Drinking Prevention Partnership	U.S. Dept of Justice  KSP - OJJDP FY2008	06/13/2008	10/1/08 - 9/30/11	\$869,035 2008-176
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The Kentucky Underage Drinking Prevention Program (KUDPP) seeks to increase the capacity for Kentucky higher education institutions to adopt and implement evidence based practices for prevention and consistent enforcement of campus policies and state laws concerning underage drinking.

Political Science & Criminal Justice	Julie Raines	Northern Kentucky Regional Mental Health Court	Health Foundation of Greater Cincinnati  SAMHSA	06/18/2008	9/1/07 - 8/31/10	\$161,891 2008-171
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This project seeks to create a regional jail diversion program for felony and misdemeanor defendants residing in Boone, Campbell and Kenton Counties in Northern Kentucky.

Department	Principal Investigator	Project Title	Funding Agency	Submission Date	Project Duration	Amount Requested
Psychology	Mark Bardgett	Lead Faculty Activities at Northern Kentucky University	National Inst. of Health  University of Louisville	06/23/2008	5/1/09 - 4/30/14	\$294,440  2008-175

The funds from this proposal will support lead faculty activities at NKU related to ongoing IDeA Networks of Biomedical Research Excellence (INBRE) research at NKU, from 2008 to 2014.

Psychology	Mark Bardgett	Preclinical Studies of Treatments for Memory Disorders	Kentucky Biomedical Research Infrastructure Network INBRE	06/06/2008	5/1/09 - 4/30/10	\$65,555  2008-163
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This grant will provide funding for a technician to assist in studies of treatments for memory disorders. The technician will work with the PI to develop and execute studies in rats and mice that assess the memory improving potential of different candidate treatments.

Sociology, Anthropology, & Philosophy	Mary Carol Hopkins	African Art Institute for Kentucky Teachers	National Endowment for the Arts  Learning in the Arts for Children	06/09/2008	9/1/09 - 5/31/11	\$63,569  2008-169
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This project will present a seven day institute for 50 Kentucky art teachers to work with five Ghanaian artists in a traditional setting on the NKU campus.

Steely Library	Rob Zai	eContent Production and Collaborative Areas	Kentucky Department for Libraries and Archives  Library Automaton Grant	06/30/2008	10/1/08 - 9/30/09	\$23,165  2008-178
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This project will provide collaborative workstations and new software to meet the needs of students and increasingly sophisticated class assignments.

**Total Number of Proposals: 20**

**Total Funds Requested: \$3,481,814**