

**NKU, OFFICE OF RESEARCH, GRANTS, AND CONTRACTS
PROPOSALS SUBMITTED
FISCAL YEAR 2006 (FEBRUARY 2006)**

| Department | Principal Investigator | Project Title | Funding Agency | Submission Date | Project Duration | Amount Requested |
|------------|------------------------|---|----------------------------------|-----------------|---------------------|------------------|
| Art | Barbara Houghton | Ok, so this is what it looks like! Using Photography to Promote Social Change | Kentucky Foundation for Women | 02/28/2006 | 5/1/06 - 8/31/07 | \$7,300 |

This project will teach photography to 8-12 year old girls to help them to maintain their distinct voice to promote social change at the Carnegie Art Center in Covington, KY.

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| Associate Provost for Economic Initiatives | Jan Hillard | Northern Kentucky University Economic Development Center | U.S. Department of Commerce Economic Development Administration | 02/17/2006 | 7/1/06 - 6/30/09 | \$450,000 |
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The proposed Northern Kentucky University Economic Development Center (NKU EDC) will design and build a system that first assesses the needs of small and medium-sized businesses, specifically those within the advanced manufacturing and logistics sectors and located in the nine county northern Kentucky area. Then, the NKU EDC will deploy technology and business development solutions to these firms in an integrated and cost effective way.

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| Biological Sciences | Hazel Barton | Microbial Metabolic Syntrophy in Starved Environments | National Institutes of Health Nat. Institute of Allergy & Infectious Diseases | 02/22/2006 | 9/1/06 - 8/31/09 | \$196,500 |
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The goal of this project is to understand the microbial interactions and processes that allow community subsistence in extremely starved cave environments.

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| Biological Sciences | Hazel Barton | American Society for Microbiology Student Fellowship - Kelly J. Charlton | American Society for Microbiology | 02/06/2006 | 5/1/06 - 6/30/07 | \$2,718 |
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American Society for Microbiology Fellowships are a prestigious recognition of student achievement and dedication to microbiology research.

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| Biological Sciences | Hazel Barton | American Society for Microbiology Student Fellowship - Mark J. Broering | American Society for Microbiology | 02/06/2006 | 5/1/06 - 6/30/07 | \$2,718 |

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| Biological Sciences | Hazel Barton | A Model System to Examine Microbial-Silicate Interactions under Low-temperature, Aphotic Conditions | Kentucky Space Grant Consortium | 02/14/2006 | 9/1/06 - 3/31/07 | \$7,671 |
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The goal of this research project is to understand the microbial interactions and processes that allow community subsistence in extremely starved cave environments using silification reactions.

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| Biological Sciences | Hazel Barton | The Metabolic and Syntrophic Activities of Microbial Subsistence in Oligotrophic Cave Environments | Kentucky NSF EPSCoR Research Enhancement Grant Program | 02/21/2006 | 6/1/06 - 5/31/07 | \$24,861 |
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The goal of this project is to understand the microbial interactions and processes that allow community subsistence in extremely starved cave environments.

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| Biological Sciences | Richard Boyce | Assessing the Effects of Amur Honeysuckle Control on Native Plant Communities at Woodland Mound Park: Post-Control Response | Hamilton County Park District | 02/10/2006 | 3/15/06 - 11/14/06 | \$1,181 |
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Native plants were surveyed at four sites with different degrees of infestation by the exotic Amur honeysuckle in 2005. The honeysuckle canopy was removed in the fall of 2005. The purpose of this grant is to look at native plant recolonization in the permanent plots that were established before the removal of the honeysuckle.

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| Biological Sciences | Rebecca Evans | Algal Composition and Element Analysis: NKU's Contribution to Understanding Land Use and Biogeochemical Processes in the Ohio River Basin | Kentucky NSF EPSCoR Research Enhancement Grant | 02/28/2006 | 5/1/06 - 8/31/06 | \$24,946 |

This project is will provide financial support for two students and one faculty member to complete analysis of samples collected in River Runs 2003, 2004, and 2005 as well as to participate in River Run 2006.

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| Biological Sciences | Patrick Schultheis | Characterization of the P5 subfamily of P-type Transport ATPases in Mice | National Institutes of Health | 02/22/2006 | 12/1/06 - 11/30/08 | \$196,650 |
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The overall goal of this project is to characterize members of the P5 subfamily of P-type transport ATPases in mice. This includes determining the cell types in which each is present, where in the cell they are found, and identifying what substrate or ion each transports.

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| Biological Sciences | E. David Thompson | The Regulation of Zinc Uptake in Squirrelfish | Kentucky NSF EPSCoR Research Enhancement Grant | 02/28/2006 | 6/1/06 - 5/31/07 | \$21,905 |
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This study will utilize genomic application to compare the expression of zinc transporter genes in squirrelfish.

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| Chemistry | Stefan Paula | Computer-Assisted Design of Novel Cardiac Glycoside Inhibitors | National Institutes of Health General Medicine | 02/24/2006 | 1/1/07 - 12/31/09 | \$196,650 |
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Computational methods in combination with bioassays will be employed to study binding affinities and inhibitory potencies of cardiac glycoside inhibitors with the ultimate goal of designing a digoxin antagonist as a remedy for digitalis poisoning.

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| Computer Science | Traian Truta | p-Sensitive k-Anonymity Property for Microdata | Kentucky NSF EPSCoR Research Enhancement Grant | 02/28/2006 | 6/1/06 - 5/31/07 | \$22,507 |

This project will develop, implement, and analyze new privacy algorithms. The algorithms will generate masked microdata with p-sensitive k-anonymity property.

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| Educational Specialties | Mary Rozier | Future Educators of America Summer Camp | Kentucky Department of Education Minority Recruitment and Retention | 02/14/2006 | 2/1/06 - 6/30/06 | \$25,000 |
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This project will provide high school seniors with the opportunity to explore teaching as a career option. The one week camp will help participants gain a realistic understanding of the nature of education and the role of a teacher.

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| Elementary, Middle, and Secondary Programs | Denise Dallmer | Teaching American History Grant | U.S. Department of Education | 02/10/2006 | 7/1/06 - 7/31/09 | \$342,387 |
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This grant will improve American history instruction and content knowledge for 120 public school teachers in Cincinnati Public Schools. The teachers will become experts in locating, appraising and analyzing primary sources after field trips, summer institutes and five content-based seminars.

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| Elementary, Middle, and Secondary Programs | Lynne Smith | Kentucky Reading Project / Collaborative Center for Literacy Development | Kentucky Department of Education | 02/27/2006 | 4/1/06 - 5/31/07 | \$66,000 |
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This grant will fund the Kentucky Reading Project consisting of a summer workshop and follow-up sessions during the year.

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| Music | Toni Sheffer | The Bremen Town Musicians | Purdy Foundation | 02/01/2006 | 2/1/06 - 3/31/06 | \$5,000 |

This project is a commissioned work by Professor Emeritus Philip Koplow. Two of the NKU Music Preparatory Department Orchestras will premiere the composition with performances on NKU's campus and in the community at large. Funds will also be used to award scholarships for the 2006-07 orchestra season.

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| Physics and Geology | Janet Bertog | Taphonomy and Diversity of a Jurassic Dinosaur Lake, Utah | Kentucky NSF EPSCoR Research Enhancement Grant | 02/28/2006 | 6/1/06 - 5/31/07 | \$24,956 |
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The research purpose is to evaluate the environment of deposition and significance of preservation of Jurassic dinosaurs and other small related fossils. Research will involve student participation in field and lab work relating to the collection of the data.

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| Physics and Geology | Scott Nutter | Cosmic Ray Energetics and Mass (CREAM II) | National Aeronautics and Space Administration (NASA) The Pennsylvania State University | 02/13/2006 | 12/1/05 - 11/30/06 | \$25,252 |
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This project will participate in the design, fabrication, testing, and integration of plastic scintillator-based detectors.

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| Physics and Geology | Scott Nutter | CREST Veto Counters Year 3 | National Aeronautics and Space Administration (NASA) The Pennsylvania State University | 02/01/2006 | 2/1/06 - 1/31/07 | \$6,280 |
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The CREST collaboration will construct an instrument to search for high energy electrons and positrons in the cosmic rays by detecting the x-ray synchrotron design, fabrication, characterization and integration of a scintillator veto counter, which will discriminate against particles directly traversing the detector and masquerading as an x-ray signal.

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| Scripps Howard Center for Civic Engagement | Gayle Hilleke | Ready and Response Service Team | Corporation for National and Community Service Learn and Serve America | 02/28/2006 | 8/1/06 - 7/31/09 | \$493,972 |
| <p>This project is a consortium grant with the Louisiana Campus Compact (LACC) and the Kentucky Campus Compact (KyCC) to conduct service learning courses and projects where college students work with K-12 students to implement service projects focused on disaster preparedness and relief. The Compacts will provide training and technical assistance, oversight, marketing and communication, and evaluation.</p> | | | | | | |
| Scripps Howard Center for Civic Engagement | Barbara Wallace | Freedom-Focused Service Learning Expansion | Corporation for National and Community Service Learn and Serve America | 02/28/2006 | 6/1/06 - 5/31/09 | \$200,000 |
| <p>This proposal is an expansion of the current Freedom-Focused Service grant funded under the Scripps Howard Center for Civic Engagement. This project will add elements from Liberal Studies (MALS), Theatre in Diversion, First Year Programs, the College of Education and Human Services, and the Center for Environmental Education.</p> | | | | | | |
| Sociology, Anthropology, & Philosophy | Boni Li | Medicaid Improvements for Aging Population | Kentucky NSF EPSCoR Research Enhancement Grant | 02/28/2006 | 7/1/06 - 6/30/07 | \$23,759 |
| <p>This project will study the human health issues which will address the development of Medicaid programs for aging population.</p> | | | | | | |
| Sociology, Anthropology, & Philosophy | Kenneth Tankersley | Echoes of Antiquity: Cultural Continuity and the Earthworks of Kentucky | National Endowment for the Humanities Division of Public Programs | 02/02/2006 | 10/1/06 - 9/30/09 | \$339,318 |
| <p>This project is a collaboration between Northern Kentucky University and the University of Cincinnati's College of Design, Architecture, Art and Planning to create an interactive multimedia educational exhibit featuring virtual 3-D reconstructions of the earthworks on the Kentucky landscape.</p> | | | | | | |

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| Steely Library | Perry Bratcher | Jazz, America's Art Form | National Video Resources | 02/08/2006 | 11/1/06 - 11/30/07 | \$1,000 |

The W. Frank Steely Library, in collaboration with the Music Department, will present a series of community programs centered around themes in jazz history. Award-winning documentary films will be viewed and then followed by discussion led by an NKU jazz music scholar.

Total Number of Proposals: 25

Total Funds Requested: \$2,708,531