

**NKU, OFFICE OF RESEARCH, GRANTS, AND CONTRACTS  
PROPOSALS SUBMITTED  
FISCAL YEAR 2009 (NOVEMBER 2008)**

Department	Principal Investigator	Project Title	Funding Agency	Submission Date	Project Duration	Amount Requested
Biological Sciences	Richard Durtsche	Impacts of Bush honeysuckle on ephemeral aquatic ecosystem	Kentucky Water Resources Research Institute	11/14/2008	3/1/09 - 2/28/10	\$5,000

Bush honeysuckle is an invasive shrub that may impact aquatic ecosystems. Our preliminary data suggest that 1) honey suckle leaf litter reduces survival and fitness of tadpoles and newly metamorphed frogs, and 2) these shrubs leaf out before native trees and may increase ecosystem water loss over the growing season. We will investigate the impact of honey suckle on 1) tadpole digestion by measuring digestive efficiencies for Bush honeysuckle and native tree leaves as a food source, and 2) lifespan reduction of ephemeral ponds and streams by measuring water use rates of honeysuckle and native trees around ephemeral aquatic ecosystems.

Biological Sciences	Joseph Mester	Undergraduate Research Grants in Immunology	Beta Beta Beta Biological Society	11/25/2008	1/1/09 - 6/30/09	\$1,392
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Three undergraduate research proposals were submitted to the Foundation. The first will identify specific virion components capable of modulating the cellular immune response. The second will examine human immune recognition of prion peptides. The third will probe modulation of specific genes thought to be involved in the pathogenesis of Alzheimer's Disease. The projects all employ molecular biology techniques to define specific aspects of the cellular immune response.

Chase College of Law	Phillip Sparkes	Local Government Law Center	Kentucky Department for Local Government	11/18/2008	7/1/08 - 6/30/09	\$46,300
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Project funds the Center's provision to counties, cities, authorities, boards, commissions, special districts and other local governments in the Commonwealth and to their officers, employees, attorneys, and citizenry of technical support, research services, training, education, and general assistance in the area of state and local government law.

Music	Toni Sheffer	Arts Among the Youth in Northern Kentucky 2009-2010	Citicorp	11/25/2008	1/1/09 - 6/30/10	\$25,000
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This grant will enable scholarships to youth in Northern Kentucky who wish to study music with the NKU Music Preparatory Department.

Department	Principal Investigator	Project Title	Funding Agency	Submission Date	Project Duration	Amount Requested
Nursing & Health Professions	Denise Robinson	Advanced Education Nursing Traineeship	Health Resources and Services Administration	11/17/2008	7/1/09 - 6/30/10	\$52,000

The AENT grant provides traineeship money for NSN and Post MSN students who are willing to seek work in a Professional Health Shortage Area.

Physics and Geology	Matthew Zacate	RUI: Dynamic and Static Broadening of Hyperfine Interactions in Intermetallic Compounds	National Science Foundation	11/07/2008	6/1/08 - 5/31/11	\$247,970
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The overall aim of this project is to involve undergraduate students in research that will enhance the use of hyperfine methods for measuring atomic jump rates, for discerning diffusion mechanisms, and for determining concentrations of defects in intermetallic compounds. Activities will include development of computer code and application of that code to perform simulations of and fit to hyperfine spectra.

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**Total Number of Proposals: 6**

**Total Funds Requested: \$377,662**