NORTHERN ILLINOIS UNIVERSITY  
OFFICE OF SPONSORED PROJECTS  

SUMMARY OF GRANT/CONTRACT AWARDS – FISCAL YEAR 2013  

October 1, 2012 – December 31, 2012

<table>
<thead>
<tr>
<th></th>
<th>FY 2013 THIS REPORT</th>
<th>FY 2013 CUMULATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DOLLARS AWARDED BY SOURCE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal Government</td>
<td>1,111,611</td>
<td>8,816,777</td>
</tr>
<tr>
<td>State of Illinois</td>
<td>146,000</td>
<td>478,000</td>
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<tr>
<td>Corporate</td>
<td>118,672</td>
<td>588,544</td>
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<tr>
<td>Public/Not for Profit</td>
<td>95,822</td>
<td>722,083</td>
</tr>
<tr>
<td>Foreign</td>
<td>0</td>
<td>95,307</td>
</tr>
<tr>
<td>Total</td>
<td>1,472,105</td>
<td>10,700,711</td>
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</tbody>
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| **DOLLARS AWARDED BY PURPOSE** |                     |                   |
| Instruction                  | 140,000             | 702,493           |
| Research                     | 1,196,795           | 5,423,260         |
| Public Service               | 84,541              | 3,689,580         |
| Other                        | 0                   | 8,902             |
| Academic Support             | 50,769              | 844,576           |
| Student Services             | 0                   | 31,900            |
| Total                        | 1,472,105           | 10,700,711        |

| **DOLLARS AWARDED BY COLLEGE** |                     |                   |
| College of Business          | 0                   | 0                 |
| College of Education         | 32,000              | 1,173,966         |
| College of Engineering and Engineering Technology | 197,120 | 1,637,148 |
| College of Health and Human Sciences | 1,000 | 305,692 |
| College of Law               | 0                   | 0                 |
| College of Liberal Arts and Sciences | 1,230,585 | 4,476,345 |
| College of Visual and Performing Arts | 6,000 | 16,000 |
| Outreach, Engagement, and Information Technologies | 0 | 1,180,000 |
| Other Academic Units         | 5,400               | 1,911,560         |
| Other University Units       | 0                   | 0                 |
| Total                        | 1,472,105           | 10,700,711        |
ANTHROPOLOGY

Award: $21,849.00.

Funds will be used to support a study of factors influencing cooperative behavior in saddleback tamarins in Bolivia.

ART MUSEUM

Award: $6,000.00.

Funds are being used to support the Art Museum's 2012-13 season exhibitions and their related publication and educational program offerings.

BIOLOGICAL SCIENCES

Department of Agriculture for “Identification of Regulatory Genes in A. Flavus and A. Nidulans that are Involved in Mycotoxin Production, Morphogenesis, and Virulence.” Ana Calvo.
Award: $2,097.00 (Cumulative $60,097.00).

Funds are being used to further the understanding of the signaling pathways involved in the production of mycotoxins, and fungal development and the role of VeA in fungal virulence.

Award: $140,000.00.

Funds are being used to develop summer workshops for teachers in order to improve middle school math and science instruction in ways that will lead to improved student achievement.

University of Nevada/National Aeronautics and Space Administration, Las Vegas for “Exploration of "biological dark matter" in geothermal springs.” Wesley Swingley.
Award: $26,316.00.

Funds are being used to support bioinformatic efforts coordinating the analysis of the community metabolome and individual single-cell genomes.
CAMPUS CHILD CARE

DeKalb County Community Foundation for “Playground Improvements at NIU's Campus Child Care.” Kristin Schulz.
Award: $3,000.00.

Funds are being used to upgrade Campus Child Care’s playground facilities in response to accreditation findings.

CHEMISTRY AND BIOCHEMISTRY

Missouri State University/American Heart Association (Greater Midwest Affiliate) for “Molecular Mechanisms of Selective Activation of Liver X Receptors.” Jon W. Carnahan.
Award: $6,678.00 (Cumulative: $54,112.00).

Funds are being used to support a graduate student, who will study the mechanisms of transcriptional activity of liver X receptors (LXRs) on the molecular level, and the elucidation of factors that can be exploited to design gene-selective LXR ligands in collaboration with Dr. Dmitry Kadnikov at MSU.

Award: $58,000.00.

The purpose of this project to verify the quantification of oxygen in the eye by comparison with that determined by an optode.

Medical College of Wisconsin/National Heart, Lung, and Blood Institute/NIH/DHHS for “Biophysics of HDL Dysfunction.” James Richard Horn.
Award: $34,360.00.

Funds are being used to analyze and develop VHH antibody constructs for use in biomedical assays of lipoproteins.

Award: $9,466.00 (Cumulative $22,120.00).

Funds are being used to prepare, characterize and improve new materials for energy efficiency and environmental application.

COUNSELING, ADULT AND HIGHER EDUCATION
Kenneth Young Center for “Project Educare.” Debra Pender.
Award: $25,000.00.

Funds are being used to maintain, and further develop, a child and adolescent specific, evidence-based practice e-Learning Collaborative for both continuing education for providers working within the Illinois Department of Mental Health Child and Adolescent division system and its supported agencies.

ENGINEERING TECHNOLOGY

DuKane Precast, Inc. for “NIU-DuKane Applied Research Project.” Shanthi Muthuswamy.
Award: $42,725.00 (Cumulative $155,508.00).

Funds are being used to assist DuKane's IAS division's efforts to optimize process flow.

ENVIRONMENT, SUSTAINABILITY & ENERGY

DeKalb County Community Foundation for “Go Green Week Festival.” Melissa Burlingame.
Award: $2,400.00.

Funds are being used to provide an engaging cultural experience for people of all ages. Activities are being designed to engage young children, families, adults, senior citizens, educators, business leaders, and STEM professionals, as well as NIU students, faculty, and staff. While the primary audience for the fest is DeKalb County, organizers hope that this unique educational and cultural experience will draw visitors from throughout the northern Illinois region.

GEOGRAPHY

Chicago Metropolitan Agency for Planning/Department of Transportation for “Regional Land Use Inventory 2010 Update.” Richard P. Greene.
Award: $30,641.00. (Cumulative: $79,261.00).

Funds are being used to determine, as a proof of concept, whether it is feasible to use publicly available satellite imagery to detect coarse-level land use change on an annual basis.

GEOLOGY AND ENVIRONMENTAL GEOSCIENCES

Award: $25,000.00 (Cumulative $147,148.00).
Funds are being used to monitor and assess the seismic energy produced by using a water gun (seismic cannon) in the Chicago Sanitary and Ship Canal and the Calumet River. The cannons are being deployed to prevent upstream migration of Asian carp into Lake Michigan, and the project aims to assess effects of the seismic energy on lock and dam structures near the deployment sites.

MECHANICAL ENGINEERING

Fermi National Accelerator Laboratory/National Science Foundation for “Development of the MU2E Preliminary Design.” David R. Hedin/Nicholas Pohlman. 
Award: $76,670.00.

Funds are being used to support NIU’s role in developing the Muon Beamstop, SiPM Characterization, and design of the Upstream Extinction Monitor.

Award: $22,709.00.

Funds will be used to support the efficiency in operations and packaging within Suncast's product engineering division.

Fermi National Accelerator Laboratory for “g-2.” Nicholas Pohlman. 
Award: $55,016.00.

Funds are being used to develop sensor upgrades and precision placement within an extreme vacuum to improve electron detection as muons decay during precession around a circular magnetic field.

NURSING AND HEALTH STUDIES

Award: $1,000.00.

This study will examine emotional eating, self-esteem and spiritual well-being with the following aim: to investigate if there is a relationship among emotional eating, self-esteem, and spiritual well-being in adolescents.

PHYSICS

University of Chicago/National Science Foundation for “MRI: Development of Ultrafast Tracking Electronics for the ATLAS Trigger.” Dhiman Chakraborty. 
Award: $15,893.00.

Funds are being used to support construction, production, and testing of electronic equipment to be included in the ATLAS trigger at the Large Hadron Collider.


Funds are being used for NIU's participation in the ATLAS Project through the simulation of a particle detector response.

Argonne National Laboratory for “Synthesis and characterization of Fe-based pnictide superconductors.” Omar H. Chmaissem. Award: $43,204.00 (Cumulative: $82,269.00).


Funds are being used to study the effects of chemical substitutions and external pressures on the superconducting and structural properties of diverse pnictide families.


Funds are being used to perform modeling and design studies for, and subsequently to construct, a cathode holder and associated RF drive.

Massachusetts Institute of Technology/Defense Advanced Research Projects Agency for “Compact, Coherent X-Ray Sources Based on Laser Acceleration and Inverse Compton Scattering.” Philippe R. Piot. Award: $183,368.00 (Cumulative: $304,532.00).


Funds are being used to model the beam dynamics, and to contribute toward the engineering, design, procurement, and installation of part of a proposed X-ray source.


Funds are being used to explore the possibility of using a compact particle acceleration technique based on a dielectric wall accelerator to produce a table-top accelerator-based light source which could be used (among other applications) to detect fissile materials.

Fermi National Accelerator Laboratory for “Joint Appointment NIU/FNAL.” Philippe R. Piot.
Award: $50,961.00 (Cumulative: $193,788.00).  

Funds are being used, per the NIU-Fermilab Memorandum of Understanding executed in December 2005, to support one-half of the PI's 9-month academic salary as a joint faculty appointee of the Department of Physics and Fermi National Accelerator Laboratory.

Fermi National Accelerator Laboratory for “Joint Appointment NIU/FNAL.” Young-Min Shin.  
Award: $38,760.00 (Cumulative: $100,024.00).  

Funds are being used, per the Memorandum of Understanding between NIU and FNAL, to support one-half of the PI's 9-month academic salary as a joint faculty appointee of the Department of Physics and the Fermi National Accelerator Laboratory.

PSYCHOLOGY

Communities in Schools of Aurora, Inc./Department of Education for “21st Century Community Learning Center Grant for Herget Middle School.” Michelle Demaray/Christine E. Malecki.  
Award: $10,500.00 (Cumulative $42,000.00).  

Funds are being used to conduct a five-year evaluation of an after school program in Herget middle school in Aurora.

Award: $60,197.00.  

Funds are being used to use both qualitative and quantitative methods to investigate mentor behaviors, from both mentors' and mentees' perspectives, and to link behaviors to leadership competencies important to both military and civilian populations.

Award: $1,000.00.  

Funds are being used to conduct a study to examine the physiological and psychological effects of consensual sadomasochism scenes.

Award: $21,531.00.  
The goal of the project is to support a psychology graduate student externship placement with St. Charles schools.
Susan Myket, Ph.D. & Associates for “Psychology Externship at Susan Myket & Associates.”
Greg Waas/Laura D. Pittman.
Award: $29,238.00.

The goal of the project is to support a Psychology graduate student externship placement at Susan Myket & Associates.

PUBLIC OPINION LAB

Lurie Children's Hospital of Chicago, Ann and Robert H. for “Communities Putting Prevention to Work.” Lorayn Ellen Olson.
Award: $6,364.00.

Funds are being used to combine Round 1 and Round 2 Illinois Health Survey 2011-2012 survey data files and add weights to be used to analyze the data for the City of Chicago and selected neighborhoods.

SOCIOLOGY

Illinois Institute of Technology/National Institute of Mental Health/NIH/DHHS for “ADHERENCE AND EMPOWERMENT: Service Participation and Meaningful Outcomes.”
Fred E. Markowitz.
Award: $25,480.00 (Cumulative $39,358.00).

Funds are being used to collaborate in conducting research projects on stigma, treatment adherence, and recovery, including instrumentation, supervision and training of interviewers, conducting interviews, data analysis, and dissemination of findings.

SPECIAL AND EARLY EDUCATION

Award: $7,000.00.

Funds are being used to establish a pilot project for the Gateways Credential Level 6.

STATISTICS

AbbVie Inc. for “Support for Linear and Nonlinear Mixed Models and Their Applications to Clinical Data.” Balakrishna S. Hosmane.
Award: $24,000.00.
Funds are being used to provide consultative assistance to statisticians at Abbott Laboratories in the application of linear and nonlinear mixed models to clinical data of interest to the sponsor.