The Office of Research Services is pleased to provide this research/scholarly/creative activity proposal/award report including related compliance and technology transfer information for the period July 1st, 2012 through June 30th, 2013. This report provides information regarding faculty/staff efforts to obtain extramural support, along with a summary of the respective successes for fiscal year 2013.

The Research/Scholarly/Creative Activity funding base at UMKC consists of all awards (grants, contracts, cooperative agreements, memorandums of understanding, etc.) of extramural funds from federal and state agencies, foundations, and various private and industrial organizations, mainly through the competitive grants process. It does not include federal or state appropriated funds, student financial aid, gifts from alumni or other friends of the University, and/or recognition-type awards.

The awarded amounts will not look familiar from previous reports, FY 2008 and before, because these figures have all been adjusted, removing student financial aid from the reported totals.

The $52M in research awards reported for 2011 is misleading, since this figure includes unusual number of multi-year awards.

There has been a significant increase in the amount of requested funding relative to the numbers of FY12 even though the number of proposals decreases. This indicates investigators are requesting more money per proposal.

It must be noted that the level of expenditures has only varied by about $5M, from the lowest to the highest, over the last 5 years, while the level of awards has varied by about $20M over the same range and period. So multi-year awards and high funding success in one year versus another year, changes in timelines for program announcements and funding decisions, and new funding areas versus older interest areas is relatively stabilized by the overall rate of expenditure activity.

The School of Dentistry, the School of Education, the Institute for Human Development, the School of Medicine and the School of Nursing and Health Studies accounted for over 60% of the total funding for FY 2013. Research accounted for 45% of total funding with 54% coming from all federal sources in contrast with 2012 where research accounted for 49% of total funding and over 59% of the funding was from federal resources. NIH continues to be the largest component of all the funding sectors.

Both the Office of Research Compliance and the Office of Technology Transfer demonstrated increased activity and effectiveness over previous years.
### Funding Comparison

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<tr>
<th>Fiscal Year</th>
<th>Award Total</th>
<th>Number of Awards</th>
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</thead>
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<td>232</td>
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<tr>
<td>FY12</td>
<td>$32,349,347</td>
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<tr>
<td>FY11</td>
<td>$52,015,642</td>
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<td>FY10</td>
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### Awards Per Year

![Bar chart showing number of awards per year from 2009 to 2013.]
Annual Expenditures VS New Awards

5 Year Summary of Expenditures

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<tr>
<th>Year</th>
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<th>2011</th>
<th>2012</th>
<th>2013</th>
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5 Year Summary of Awards

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<th>2012</th>
<th>2013</th>
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<td>$32,349,347</td>
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### University of Missouri - Kansas City

**Office of Research Services**

*Pre-Award*

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<th>Proposed Sponsor Total</th>
<th>No. of Submitted Proposals</th>
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### Number of Submitted Proposals

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<tr>
<td>2010</td>
<td>550</td>
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<tr>
<td>2011</td>
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<td>2012</td>
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</tr>
<tr>
<td>2013</td>
<td>360</td>
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</table>
Top Left: Graduate student Brad Nordell, sorting samples for a project funded by Intel for next generation transistors.

Top Right: Magnetron sputtering of copper metal onto a substrate to create contacts for electrical testing.

Middle Left: Microscope image of stress-based delamination of a boron carbide thin film on the scale of a human hair.

Middle Right: Foreground - graduate students Cory Hoshor and Brad Nordell inspecting thin film samples. Background – research professor Michelle Paquette, graduate student Eliot Myers, and high school student, Thuong Nguyen collecting wafer height measurements on the optical profilometer.

Bottom Left: Professor Anthony Caruso measuring the alpha particle sensitivity off a neutron detector.
## Fiscal Year 2013 New Awards

### Fiscal Year Summary - Distribution of New Awards by CSD (number & Dollar value)

<table>
<thead>
<tr>
<th>Division</th>
<th>Department</th>
<th>Number of Awards</th>
<th>Sum of Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>College of Arts &amp; Sciences</td>
<td>Arch &amp; Urban Planning &amp; Design</td>
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<td>$5,000</td>
</tr>
<tr>
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<td>Chemistry</td>
<td>5</td>
<td>$652,723</td>
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<tr>
<td></td>
<td>Communications Studies</td>
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</tr>
<tr>
<td></td>
<td>Criminal Justice &amp; Criminology</td>
<td>5</td>
<td>$342,452</td>
</tr>
<tr>
<td></td>
<td>Economics</td>
<td>7</td>
<td>$427,000</td>
</tr>
<tr>
<td></td>
<td>English Language &amp; Literature</td>
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<td>$132,346</td>
</tr>
<tr>
<td></td>
<td>Geosciences</td>
<td>2</td>
<td>$101,439</td>
</tr>
<tr>
<td></td>
<td>Mathematics</td>
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<tr>
<td></td>
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<tr>
<td></td>
<td>Psychology</td>
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<td>$1,121,104</td>
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<tr>
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<tr>
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<tr>
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<tr>
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<td><strong>232</strong></td>
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*Diversity award is a prior year adjustment in FY13

**ATTCs incorporated into Nursing DeptIDs
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<th>Amount</th>
<th>FY 2013</th>
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<tr>
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<td>310</td>
<td>$52,015,642</td>
<td>227</td>
<td>$32,349,347</td>
<td>232</td>
<td>$34,073,145</td>
</tr>
</tbody>
</table>

*Diversity award is a prior year adjustment in FY13

**Nursing incorporated ATTCs into their DeptID in FY13
Obese children exhibit less intense activation in self-control regions (lateral prefrontal cortex) while viewing food-related stimuli (Bruce, et al., 2013), but greater tonic functional connectivity between those control regions and reward regions in orbital and medial prefrontal cortex.

**Left:** Functional neuroimaging research by Dr. Amanda Bruce and colleagues demonstrates that there are differences between obese and healthy weight children’s brain activations in response to food and nonfood logos and while at rest.

**Right:** Scientists from the Kansas University Medical Center, UMKC and Harvard University provide the first cryoEM view of the anthrax pore translocon “spear” inserted into a lipid bilayer. This pore initially binds cell surface receptors as toxin-prepore complexes. The cell then engulfs this Trojan horse, transforming the prepore into the pore, which allows the passenger toxins to thread through the pore to disrupt cellular function. The trick to obtaining this structure followed nature’s lead, and entailed tethering the prepore-lethal toxin complex to a solid support, then transforming the prepore to the pore before assembling a lipid nanodisc around the hydrophobic pore tip.

FY2013 Awards by Purpose

- Instruction: 9%
- Research: 45%
- Other Sponsored Programs: 46%

FY13 by Purpose

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Amount</th>
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</thead>
<tbody>
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<tr>
<td>Other Sponsored Programs</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$34,073,145</strong></td>
</tr>
</tbody>
</table>

FY2013 Awards by Type

- Federal: 54%
- State: 22%
- Other Universities: 8%
- Foundations/Non-Profit: 12%
- Business and Industry: 4%

FY13 by Type

<table>
<thead>
<tr>
<th>Type</th>
<th>Amount</th>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$34,073,145</strong></td>
</tr>
</tbody>
</table>
FY13 Federal Agency Awards

National Institutes of Health
- National Institute on Aging: $1,575,390
- National Institute of Dental and Craniofacial Research: $1,163,492
- National Institute of Arthritis, Musculoskeletal, and Skin Diseases: $937,771
- National Institute on Drug Abuse: $902,817
- National Eye Institute: $831,250
- National Institute on Alcohol Abuse and Alcoholism: $696,697
- National Institute of General Medical Sciences: $529,803
- National Institute of Allergy and Infectious Diseases: $529,717
- National Institute of Mental Health: $356,400
- National Cancer Institute: $212,629
- National Institute of Nursing Research: $5,171

**NIH Subtotal**: $7,741,137

- Health Research Service Administration: $2,274,217
- Economic Development Administration: $1,199,615
- National Science Foundation: $1,491,644
- Substance Abuse and Mental Health Services Admin: $650,000
- Office of Public Health and Science: $550,001
- Administration for Children and Families: $628,167
- U.S. Department of Education: $1,282,523
- Other Federal: $2,551,524

**TOTAL FEDERAL**: $18,368,828
Compliance

The UMKC Research Compliance Office for the Office of Research Services (ORS) provides operational and staffing support and administers all research performed on behalf of the Adult Health Sciences and Social Sciences Institutional Review Boards (IRB), Institutional Animal Care and Use Committee (IACUC), Institutional Biosafety Committee (IBC), and Radiation Safety Committee (RSC).

**Adult Health Sciences and Social Sciences Institutional Review Boards (IRB)**
The IRB Administrative Office has been working towards a complete restructure of current IRB SOPs with the intent to have them published to the UMKC community after the beginning of the year 2014.

In November the eProtocol electronic IRB submission system will have been in place for 1 year with office productivity and IRB satisfaction increasing during the initial year.

**Institutional Animal Care and Use Committee (IACUC)**
The IACUC developed and implemented a new Protocol Application Form (based upon the requirements put forth in the 8th edition of the Guide). The IACUC also developed and posted on the website a table displaying review timelines to provide researchers a better expectation of turnaround time. With the addition of the new application as well as previously released forms the IACUC decreased turnaround time in addition to decreasing the paperwork load on researchers submitting applications, amendments, etc.

**Institutional Biosafety Committee (IBC)**
The IBC is currently in discussions to secure an electronic submission system for the application of IBC materials.

**Radiation Safety Committee (RSC)**
The RSC successfully renewed the U.S. Nuclear Regulatory Commission (NRC) license. The NRC License authorizes an applicant to conduct any or all of the following activities:

- Construct, operate, and decommission commercial reactors and fuel cycle facilities.
- Possess, use, process, export and import nuclear materials and waste, and handle certain aspects of their transportation.
- Site, design, construct, operate, and close waste disposal sites.

The following table displays the number of protocols (IRB, IACUC, and IBC) and Authorized User Permits (RSC) granted to institutional researchers during the fiscal year 2012 and 2013 as well as the total numbers of active protocols and permits currently maintained by the respective Boards and Committees.

| Number of Protocols/Authorized Users (RSC) |
|------------------|---|---|---|
|                  | 2012 | 2013 | Active |
| IRB              |       |       |       |
| Adult Health     | 98    | 122   | 176   |
| Social Science   | 240   | 191   | 317   |
| IACUC            | 22    | 21    | 89    |
| IBC              | 30    | 28    | 105   |
| RSC (Permits)    | 12    | 12    | 42    |
Technology Transfer

The UMKC Office of Technology Transfer helps UMKC faculty and researchers transfer university inventions to the marketplace, helping them to turn their innovative ideas into products, technologies, and services that can benefit society.

Business Functions:

The UMKC Office of Technology Transfer provides the following functions:

- Education of faculty on intellectual property and technology transfer while encouraging invention disclosure from faculty.
- Review disclosures for patentability, freedom to operate, and marketability.
- Maintain federal and grant compliance regarding intellectual property.
- Filing of provisional and non-provisional patents applications.
- Facilitate commercialization of technologies and collaboration with outside organizations via non-disclosure, inter-institutional, and collaboration agreements.
- Actively market and promote technologies to commercial entities.
- Negotiate, draft, and maintain license agreements. Material transfer agreements (MTA’s).

During the 2013 fiscal year the UMKC Office of Technology Transfer received 30 invention disclosures, and filed 12 patent applications. The Office also executed 4 Licenses/Options during the 2013 fiscal year.
Early in 2013, the Friedman lab at the UMKC School of Pharmacy published a paper in the highest impact factor weekly chemistry journal in the world, *Angewandte Chemie* (impact factor 13.7). In it, they detailed a new approach for the delivery of insulin from a photoactivated depot. A photoactivated depot is a material that can be injected beneath the skin remaining inert until a specific wavelength of light irradiates it through the skin, releasing insulin. The photoactivated depot has the potential to eliminate most insulin injections and provide a tight control of blood sugar levels (with commensurate improvement in quality of health). In each issue of *Angewandte Chemie*, one communication is selected to be featured in a full page graphic called the frontispiece. This article by Professor Friedman and his students was selected for this honor.

FY2013 Awards by College, School, and Department
College of Arts & Sciences

Arch & Urban Planning & Design

Frisch, Michael -- Equity Analysis for Marc EPA Wetlands Grant, $5,000, Mid America Regional Council (MARC)

Chemistry

Buszek, Keith Richard -- Center of Excellence in Chemical Methodologies and Library Development, $12,669, University of Kansas Medical Center For Research Inc.

Chen, Xiaobo -- Corporate Sponsored Project, $130,812.25

Chen, Xiaobo -- Corporate Sponsored Project, $92,599.75

Chen, Xiaobo -- Corporate Sponsored Project, $71,642

Peng, Zhonghua -- Polyoxometalate-Containing Linear-Dendritic Block Copolymers as Next Generation Optoelectronic Hybrid Materials, $34,5000, NSF Division of Material Research

Communications Studies

Elliot, Lyn E. -- The French New Wave and its Influences a Film Screening Series, $1,144, Missouri Arts Council

Criminal Justice & Criminology

Holsinger, Alexander -- Risk Assessment for Bail and Pre-Trial Decision Making Research, $199,846, Pennsylvania Commission on Crime and Delinquency

Novak, Kenneth J. -- Implementation, Training and Support for KC NoVA (KCPD), $37,500, Kansas City Metropolitan Crime Commission


Novak, Kenneth J. -- Evaluation Support for the Kansas City No Violence Alliance, $45,128, Local Initiative Support Corp.

Novak, Kenneth J. -- Intelligence Support for NoVA, $30,000, City of Kansas City

Economics

Bowles, Douglas -- EDC Web Mapping Application, $5,000, Economic Development Corporation of Kansas City

Eaton, Peter James -- KCMO Blight Study 2012-Lykins/Indian Mound, $50,000, Mattie Rhodes Center
Eaton, Peter James -- Keep Kansas City Beautiful 2013, $12,000, Bridging The Gap

Eaton, Peter James -- LISC CSI Data and Evaluation Project 2 (Missouri), $15,000, Local Initiative Support Corp.

Eaton, Peter James -- LISC CSI Data and Evaluation Project, $45,000, Local Initiative Support Corp.

Wray, Larry -- Renewal: A Research and Policy Dialogue Project on Improving Governance of the Government Safety Net in Financial Crisis, $150,000, Ford Foundation

Wray, Larry -- Renewal: A Research and Policy Dialogue Project on Improving Governance of the Government Safety Net in Financial Crisis, $150,000, Ford Foundation

**English Language & Literature**

Kline, Katie Maureen -- Implementing Literacy Standards Toward the Common Core, $52,450, Missouri Department of Elementary and Secondary Education

Kline, Katie Maureen -- SEED Professional Development in a High-Need School, $20,000, National Writing Project Corp.

Rydberg-Cox, Jeffrey -- A Digital Studio for the Optical and Chemical Analysis of Manuscripts and Early Printed Books, $59,896, National Endowment for the Humanities

**Geosciences**

Gentile, Richard Joseph -- Educational Component of the National Cooperative Geologic Mapping Program, $5,246, Geological Survey

Lee, Jejung -- Interactions and Feedbacks Between Biomass Burning and Water Cycle Dynamics Across the Northern Sub-Saharan African (NSSA) Region, $96,193, NASA Goddard Space Flight Center

**Mathematics**

Zeng, Yong -- Statistical Analysis for Partially-Observed Markov Processes with Marked Point Process Observations, $100,473, NSF Division of Mathematical Science

Zeng, Yong -- Statistical Analysis for Partially-Observed Markov Processes with Marked Point Process Observations, $87,290, NSF Division of Mathematical Science

Zeng, Yong -- Statistical Analysis for Partially-Observed Markov Processes with Marked Point Process Observations, $90,770, NSF Division of Mathematical Science

**New Letters**

Stewart, Robert J -- New Letters Literary Initiative, $18,740, Missouri Arts Council

**Physics and Astronomy**

Brodwin, Mark -- Tracing the Evolution of Star Formation Activity in High Redshift Galaxy Clusters, $16,932, Jet Propulsion Lab

Brodwin, Mark -- A Wise Search for the Most Massive, High-Redshift Galaxy Clusters, $2,550, University of Florida

Caruso, Anthony Nicholaus -- Understanding the Electronic Structure of the A-B5c:Hx-To-Metal Interface, $99,234, Defense Threat Reduction Agency

Caruso, Anthony Nicholaus -- Corporate Sponsored Project, $124,826

Caruso, Anthony Nicholaus -- Corporate Sponsored Project, $124,976

Caruso, Anthony Nicholaus -- Prompt Neutron Spectrometry for Identification of SNM in Unknown Shielding Configurations, $218,002, Office of Naval Research

Caruso, Anthony Nicholaus -- Active Neutron Spectrometer, $50,000, Office of Naval Research

Caruso, Anthony Nicholaus -- Understanding the Electronic Structure of the A-B5c:Hx-to-Metal Interface, $98,713, Defense Threat Reduction Agency

Ching, Wai Yim -- Relationship of Theoretical Nano-Scale Structure/ Properties of Calcium Silicate Hydrate (CSHY) and Experiemental Micro-scatle Properties of Cement Paste, $35,511, University of Kansas Medical Center Research Institute, Inc.

Ching, Wai Yim -- Long Range Van Der Waals-London Dispersion Interactions for Biomolecular and Inorganic Nanoscale Assembly, $137,668, University of Maryland

Ching, Wai Yim -- Large Scale Simulations of the Mechancial Properties of Layered Transition Metal Ternary Compounds for Fossil Energy Power System Applications, $228,736, Department of Energy

McIntosh, Daniel H. -- A Far-UV to Mid-IR Survey of Nearby Interacting Galaxies and Mergers, $58,300, NASA Goddard Space Flight Center

Wrobel, Jerzy Michal -- MRI: Development of a High Pressure Laser Heating System, $58,385, NSF Division of Materials Research


Psychology

Berkley Patton, Jannette -- STD Screening in African American Churches, $13,500, University of Kansas Medical Center Research Institute, Inc.

Berkley Patton, Jannette -- Multilevel Health Promotion in African American Churches, $209,541, National Center on Minority Health and Health Disparities
Berkley Patton, Jannette -- Multilevel Health Promotion in African American Churches, $140,954, National Center on Minority Health and Health Disparities

Bruce, Jared M -- The Effects of Aerobic Exercise on Daytime Sleepiness and Speed of Information Processing in Individuals with Multiple Sclerosis, $5,963, University of Kansas Medical Center Research Institute, Inc.

Bruce, Jared M -- Development of a Motivational Intervention to Improve Treatment Adherence in MS, $146,235, National Multiple Sclerosis Society

Bruce, Jared M -- Development of a Motivational Intervention to Improve Treatment Adherence in MS, $146,235, National Multiple Sclerosis Society

Catley, Delwyn -- Can Motivational Interviewing Be Effective for Smoking Cessation?, $212,629, NIH National Cancer Institute

Goggin, Kathleen -- Determinants of Use of Safer Conception Strategies Among HIV clients in Uganda, $57,217, RAND Corporation

Goggin, Kathleen -- Determinants of Use of Safer Conception Strategies Among HIV clients in Uganda, $71,316, RAND Corporation

Murdock, Tamera B -- KC-AERC: Transition to Post Secondary Education, $117,514, University of Kansas Medical Center Research Institute, Inc.

Diversity

Ryujin, Kristi -- The Pipeline, $99,963.95, United Services Community Action Agency

Institute for Human Development

Abel, Michael B -- Indian Mound Quality of Life Planning, $30,000, Mid America Regional Council (MARC)

Calkins, Carl F -- People First of Missouri FY2013 Steering Committee, $40,000, Missouri Developmental Disabilities Council

Calkins, Carl F -- A National Gateway to Self-Determination-5 Year, $442,988, Children and Family Services

Calkins, Carl F -- Adult Continuing Education for People with Developmental Disabilities FY2013, $226,864, Developmental Disability Services of Jackson County-EITAS

Fuger PhD, Kathryn L -- Quality Matters 2012-2013, $38,000, United Way of Greater Kansas City

Fuger PhD, Kathryn L -- Early Childhood Comprehensive System (ECCS) 2011-2012, $99,895, Missouri Department of Health and Senior Services
Fuger PhD, Kathryn L -- Missouri First Steps Service Coordination Study, $24,600, Missouri Department of Elementary and Secondary Education

Fuger PhD, Kathryn L -- Healthy Start 2012-2013, $90,000, Maternal and Child Health Coalition

Fuger PhD, Kathryn L -- Evaluation of Child Advocacy Centers for Missouri KidsFirst, $34,000, Missouri KidsFirst

Fuger PhD, Kathryn L -- Abandoned Infants Assistance Cross-Site Evaluation, $150,000, University of California Berkeley

Fuger PhD, Kathryn L -- Program Administration Scale (PAS) 2013, $13,100, Mid America Reg Council (MARC)

Gotto IV, George Swift -- Developmental Disabilities Health Initiative-Gotto, George, $40,471, Developmental Disability Services of Jackson County-EITAS

Gotto IV, George Swift -- Partnership for Hope, $717,596, Missouri Department of Mental Health

Gotto IV, George Swift -- Determining the Efficacy of the Self-Determined Career Development Model of Instruction to Improve Employment Outcomes for Adults with Developmental Disabilities-Nidrr-Cfda 84.133g-1, $200,000, U.S. Department of Education

Jenson, Ronda Jean -- MIM Development 2012-2013, $103,741, Missouri Department of Elementary and Secondary Education

Jenson, Ronda Jean -- MO State Personnel Development Grant-Management and Content Development, $350,074.38, Missouri Department of Elementary and Secondary Education

Jenson, Ronda Jean -- MOSPDG Purveyor Supervision Yr2, $489,482.56, Missouri Department of Elementary and Secondary Education

Jenson, Ronda Jean -- MOSPDG Managemnt and Content Development Yr2, $370,626.88, Missouri Department of Elementary and Secondary Education

Jenson, Ronda Jean -- MOSPDG Technologies Management and Development Yr2, $187,939.06, Missouri Department of Elementary and Secondary Education

Jenson, Ronda Jean -- Missouri State Personnel Development Grant-Purveyor Supervision, $303,784.11, Missouri Department of Elementary and Secondary Education

Jenson, Ronda Jean -- Building an Alliance for New Careers in Stem (Kc-Bancs), $303,517, NSF Division of Human Resource Development

Jenson, Ronda Jean -- Safety First 2011-2013, $119,167, Metropolitan Organization to Counter Sexual Assault

Jenson, Ronda Jean -- MO State Personnel Development Grant-Technologies Management and Development, $185,427.53, Missouri Department of Elementary and Secondary Education

Jenson, Ronda Jean -- MIM Implementation Facilitators Supervision 2012-13, $182,606.77, Missouri Department of Elementary and Secondary Education
McVeigh, Thomas F -- Aging and Disability Resource Center (ADRC)-Supplement,$0, Missouri Department of Health and Senior Services

McVeigh, Thomas F -- Traumatic Brain Injury (TBI)-Yr 5-10 Months, $185,188, Missouri Department of Health and Senior Services

McVeigh, Thomas F -- Tips 4 Kids-LEND-Years1-5, $54,119, Health Resources and Services Administration

McVeigh, Thomas F -- Missouri Transition to Employment Collaborative 2011-2016, $628,167, Administration for Children and Families

McVeigh, Thomas F -- Hospital Discharge 2011-2012-Supplement, $0, Missouri Department of Health and Senior Services

Reynolds, Michelle C -- Family Support, $99,781, Missouri Department of Mental Health

Reynolds, Michelle C -- BSHCN Family Partnership, $79,811, Missouri Department of Health and Senior Services

Reynolds, Michelle C -- MODDRC/Family to Family-5 Yr-Reynolds, $150,000, Missouri Developmental Disabilities Council

Reynolds, Michelle C -- Family Support-MODDD, $99,781, Missouri Department of Mental Health

Reynolds, Michelle C -- Family Support Community of Practice (COP), $75,000, National Association of State Directors of Developmental Disabilities Services

Reynolds, Michelle C -- Family Support Community of Practice (COP), $75,000, National Association of State Directors of Developmental Disabilities Services

Reynolds, Michelle C -- Family Support Community of Practice (COP), $75,000, National Association of State Directors of Developmental Disabilities Services

Reynolds, Michelle C -- Family Support Community of Practice (COP), $83,000, National Association of State Directors of Developmental Disabilities Services

Reynolds, Michelle C -- Family Support Community of Practice (COP), $86,000, National Association of State Directors of Developmental Disabilities Services

Reynolds, Michelle C -- Enhancing Pediatric Care Coordination for CYSHCN Through Parent to Parent Mentoring, $86,500, Health Resources Services Administration

Willis, Derrick Keith -- Add Us In-Option Year 3- 2012-2013, $375,000, Department of Labor

Libraries

Hunter, Diane K -- ACRL Immersion 12 Assessment: Demonstrating the Education, $1,471, Missouri State Library
Postlethwaite, Bonnie Sue -- Created Equal: Americas Civil Rights Struggle, $1,200, Gilder Lehrman Institute of American History

Radio Station

Cahill, Patricia Deal -- FY13 MAC Arts Funding, $3,425, Missouri Arts Council

Leone, Nicolas A -- Kemper Foundation Grant for KCUR Community Service, $160,000, William T. Kemper Foundation

Leone, Nicolas A -- Kemper Foundation Grant for KCUR Community Service, $160,000, William T. Kemper Foundation

Leone, Nicolas A -- Stern Foundation for Arts Reporting, $143,333, Richard J. Stern Foundation for the Arts

Leone, Nicolas A -- Community Service Grant, $254,803, Corporation for Public Broadcasting

Leone, Nicolas A -- 2012-2013 Missouri Public Corporation Special Fund, $4,083.01, Missouri Arts Council

Morris, Frank W -- Local Journalism Center - Year 3, $500,988, Corporation for Public Broadcasting

Research

UMKC Innovation Center

Meyers, Maria E -- MTC Match for 2012 I6 Challenge: Creating a Regional Center for Digital Innovation in the Kansas City Region, $500,000, Missouri Technology Corporation

Meyers, Maria E -- Urban Business Growth Initiative, $310,000, Initiative for a Competitive Inner City

Meyers, Maria E -- The Digital Sandbox: A Proof of Concept Center for the Kansas City Region, $502,995, Economic Development Administration

Meyers, Maria E -- The Digital Sandbox: A Proof of Concept Center for the Kansas City Region, $496,620, Economic Development Administration

Meyers, Maria E -- Missouri Small Business and Technology Development Center, $131,118, U.S. Small Business Administration

Meyers, Maria E -- Missouri Procurement Technical Assistance Center, $80,000, Defense Logistics Agency

Meyers, Maria E -- FY 2013 University Center Economic Development Program Competition-Match, $200,000, Economic Development Administration

Meyers, Maria E -- Support for KC Google Fiber Project, $15,000, Ewing Marion Kauffman Foundation
School of Biological Sciences

*Biology – General*

**Bouyain, Samuel Eric Andre** -- Structural and Biochemical Studies of Protein Tyrosine Phosphatase Function, $237,600, NIH National Institute of General Medical Science

**Geisbrecht, Brian V** -- Gc1qr/P33: Structure-Function and Role in Inflammation, $18,750, Research Foundation of SUNY

**Geisbrecht, Brian V** -- Multiple States of IpaB in Shigella Type III Secretion, $167,405, Oklahoma State University

**Geisbrecht, Erika Rae** -- Mechanisms Underlying Muscle Development in Drosophila, $327,600, NIH National Institute of Arthritis Musculoskeletal and Skin Diseases

**Idnurm, Alexander** -- Antifungal Drug Target Prioritization Using Cryptococcus Neoformans, $187,500, NIH National Institute of Allergy and Infectious Diseases

**McCluskey, Kevin** -- RCN: A Community of Ex Situ Microbial Germplasm Collections, $95,940, NSF Directorate for Biological Sciences

**Price, Jeffrey** -- Novel Circadian Mutant of Drosophila, $292,203, NIH National Institute of General Medical Science

**Read, G Sullivan** -- Exploring the UL41 Protein of Herpes Simplex Virus as a Novel Target for Anti-Viral Drugs, $10,000, University of Kansas Medical Center Research Institute, Inc.

School of Computing & Engineering

*Civil & Mechanical Engineering*

**Bloemker, Katherine Hoffman** -- Corporate Sponsored Project, $500

**Bloemker, Katherine Hoffman** -- Corporate Sponsored Project, $500

**Bloemker, Katherine Hoffman** -- Corporate Sponsored Project, $500

**Bloemker, Katherine Hoffman** -- Corporate Sponsored Project, $500

**Chen, ZhiQiang** -- High-Level Understanding and Real-Time Computing of Remotely-Sensed Very-High-Resolution (VHR) Images for Built Environment Monitoring and Disaster Assessment: A Concept Paper, $25,000, NASA Goddard Space Flight Center

**Kevern, John T** -- Corporate Sponsored Project, $40,000
Kevern, John T -- Corporate Sponsored Project, $15,000

Obannon, Deborah Jean -- Corporate Sponsored Project, $62,300

Richardson, Jerry R -- Corporate Sponsored Project, $18,393

Stern, Amber Rath -- Modeling Osteocytes at the Subcellular Level Within within a Mineralized Microenvironment: Changes in Osteocyte Mechanotransduction with Age and Osteoporosis, $75,000, American Society of Bone and Mineral Research

Comp Science & Electric Engineering

Derakhshani, Reza -- Corporate Sponsored Project, $10,175

Derakhshani, Reza -- Corporate Sponsored Project, $23,914

Kumar, Vijay -- INFORMER: A System for Immediate and Accurate Notification of Critical Data to Relevant Medical Professionals for Patient Care (Gaddis), $15,280, Saint Luke’s Hospital

Kumar, Vijay -- KCP&L Paseo Project "Mysolar.Edu", $42,000, Kansas City Power and Light Company


Medhi, Deepankar -- NeTS: Small: Collaborative Research: Resilient Network Design Under Massive Failures and Attacks, $61,297, NSF Division of Computer and Network Systems

Medhi, Deepankar -- NeTS: Small: Collaborative Research: Resilient Network Design Under Massive Failures and Attacks, $76,328, NSF Division of Computer and Network Systems

Medhi, Deepankar -- US-Japan Networking Research Collaboration Workshop, $41,884, NSF Division of Computer and Network Systems

Rao, Praveen Ramesh -- Small: Scalable RDF Query Processing Using a Cloud Infrastructure, $126,438, NSF Division of Information and Intelligent Systems

School of Dentistry

Dean, School of Dentistry

Friesen, Lynn Roosa -- Corporate Sponsored Project, $123,965

Dental Hygiene

Branson, Bonnie S -- ECP III Training Course, $10,000, Kansas Department of Health and Evnironment

Simmer-Beck, Melanie Lea -- Kansas Oral Health Screening and Sealant Initiative, $10,000, Kansas Department of Health and Evnironment
Dental Instruction – DDS

Dallas, Sarah L -- Dynamics of Assembly of Bone Matrix Proteins, $324,000, NIH National Institute of Arthritis and Musculoskeletal and Skin Diseases

Oral Biology

Bonewald, Lynda F -- Osteocyte Regulation of Bone/Muscle with Age, $1,575,390, NIH National Institute on Aging

Dallas, Sarah L -- Optimizing Normal Collagen Replacement In Osteogenesis Imperfecta, $194,487, NIH National Institute of Arthritis and Musculoskeletal and Skin Diseases

Gorski, Jeffrey P -- How Does SKI-1 Regulate Somitogenesis?, $25,000, Scoliosis Research Society

Gorski, Jeffrey P -- ICCBMT Agreement, $7,000, Giorgia Institute of Technology

Gorski, Jeffrey P -- How Does SKI-1 Regulate Somitogenesis?, $0, Scoliosis Research Society

McGuire, Jacob D. -- The Effect of Radiotherapy on Enamel Associated Proteins, $64,530, NIH National Institute of Dental and Craniofacial Research

Nickel, Jeffrey Charles -- Joules, Genes and Behaviors: A Multifactorial Assessment of TMD Risk Indicators, $547,712, NIH National Institute of Dental and Craniofacial Research

Walker, Mary P -- Understanding The Mechanism Of Radiotherapy-Induced Dentition Breakdown, $371,250, NIH National Institute of Dental and Craniofacial Research

Wang, Yong -- Multifunctional, Non-Thermal Plasma for Robust Dental Bonding, $180,000, NIH National Institute of Dental and Craniofacial Research

Wang, Yong -- Mechanotransduction Approach to Improve Bone Quality in Osteogenesis Imperfecta, $91,684, NIH National Institute of Arthritis and Musculoskeletal and Skin Diseases

Wang, Yong -- 3D in Vivo Morphometry of Trabecular Microstructure, $50,000, University of California, Davis

Oral Path, Med & Rad Res

Whitt, Joseph C -- Development of Protocols for Studying Oral Precancerous Lesions and Other Health Risks Among Betel Nut Users in Micronesia, $1,500, University of Guam

School of Education

Community Service

Butner, Bonita Key -- Roo Ready, $84,500, Missouri Department of Higher Education
Chase, Phyllis Ann -- Charter School Sponsor Finance, $840,000, Missouri Department of Elementary and Secondary Education

Collins, Julie Ann -- Quality Assurance Monitoring Visits for End-Of-Course, $1,250, Missouri Department of Elementary and Secondary Education

Collins, Julie Ann -- Kansas City Area Supervisor Office, $4,999.99, Missouri Department of Elementary and Secondary Education

Collins, Julie Ann -- Kansas City Area Supervisor Office, $7,019, Missouri Department of Elementary and Secondary Education

Collins, Julie Ann -- Missouri DESE Consolidated Contract, $1,110,000, Missouri Department of Elementary and Secondary Education

Collins, Julie Ann -- Missouri DESE Consolidated Contract, $173,691, Missouri Department of Elementary and Secondary Education

Collins, Julie Ann -- Missouri School Improvement Grant 1003(G)SIG, $323,748, Missouri Department of Elementary and Secondary Education

Collins, Julie Ann -- Missouri DESE Consolidated Contract, $1,000, Missouri Department of Elementary and Secondary Education

Collins, Julie Ann -- Missouri DESE Consolidated Contract, $1,000, Missouri Department of Elementary and Secondary Education

Collins, Julie Ann -- Missouri DESE Consolidated Contract, $170,398, Missouri Department of Elementary and Secondary Education

Goree-Hamilton, Latoya Monique -- K-5 Pilot After School Program in Personal Finance, $16,000, Council for Economic Education

Counseling & Education Psychology

Nilsson, Johanna E -- Rose Brooks Center, Inc. Jackson County Mental Health Levy Subcontract-IWI, $3,200, Rose Brooks Center, Inc.

Education – General

Shealey, Monika Williams -- Increasing Academic Achievement Through Culturally Responsive Pedagogy, $134,000, Greater Kansas City Community Foundation

Vartuli, Sue -- Fourth Year of the Mid-America Head Start Coaching Research Project 2011-2012, $20,608, Mid America Regional Council (MARC)

Waddell, Jennifer H -- Project Institute for Urban Education (IUE) Change Agents for Urban School Excellence (CAUSE), $1,082,523, United States Department of Education
School of Management

Business Administration

Clements, Walter -- HUD Sustainable Communities Regional Planning Grant, $10,000, Mid America Regional Council (MARC)

Public Affairs

Renz, David O -- Non-Profit Leadership Program, $23,674, Missouri Department of Social Services

School of Medicine

Basic Medical Sciences

Burroughs, Stephanie L. -- Novel Mechanism Underlying Altered Calcium Signaling in Glaucoma - A Potential Target for New Therapy Development Using Neuroprotection, $20,000, Fight for Sight

Chu, Xiangping -- Acid-Sensing Ion Channels Contribute to Zinc-Induced Neurotoxicity., $71,500, American Heart Association

Chu, Xiangping -- Targeting Acid-Sensing Ion Channel 1a To Prevent Drug Addiction, $190,584, NIH National Institute on Drug Abuse

Koulen, Peter -- Administrative Supplement to Grant "Novel Mechanism of Action as Therapeutic Strategy for Optic Neuritis", $100,000, NIH National Eye Institute

Lafferty, William Ernest -- A Study of the Feasibility of Utilizing a Diabetes Educator Trained in Motivational Interviewing to Deliver Education and Counseling to Improve Self-Management Among Diabetes Patients in Rural Communities, $49,972, Blue Cross Blue Shield of Kansas City

Silswal, Neerupma -- Regulation of Intracellular Ca2+ By Pi(3,5)P2: A Novel Pathway for Control of Vascular Smooth Muscle Contraction, $48,428, American Heart Association

Stella, Salvatore Lucia -- Adenosine Signaling in the Outer Retina, $25,000, Plum Foundation

Wang, Qiang -- Molecular Regulation of Metabotropic Glutamate Receptors in Striatal Neurons, $356,400, NIH National Institute of Mental Health

Dean, School of Medicine

Barnett, Angela L -- Sojourner Health Clinic, $53,657, Lazarus Ministries

Payne, Lynda -- Literature and Medicine: Humanities at the Heart of Health Care, $1,300, Missouri Humanities Council
Wilson, Susan -- Sojourner Health Clinic, $26,400, Reach Healthcare Foundation

School of Medicine Research

Koulen, Peter -- Novel Mechanism of Action as Therapeutic Strategy for Optic Neuritis, $375,000, NIH National Eye Institute

Koulen, Peter -- Novel Mechanism of Action as Therapeutic Strategy for Optic Neuritis, $356,250, NIH National Eye Institute

Koulen, Peter -- Novel Mechanistic Targets of Steroid Hormones in the Brain, $267,056, University of North Texas

Lafferty, William Ernest -- Transformation of the Health Care Workforce to Combat Disparities, $107,100, Association of American Medical Colleges

Salzman, Gary A -- Effect of Positive Airway Pressure on Reducing Airway Reactivity in Patients with Asthma (CPAP), $66,000, American Lung Association

Salzman, Gary A -- Asthma Clinical Research Centers, $75,000, American Lung Association

Salzman, Gary A -- Study of Asthma and Nasal Steroids (STAN) 2013, $5,300, American Lung Association

Salzman, Gary A -- Smoking Asthmatics Pilot Study: Smoking Asthmatics Cohort Study (SAPS), $2,750, American Lung Association

Spertus, John -- Genomic Variants Associated with Angina and Health Status Outcome, $19,620, Washington University

Spertus, John -- International Study of Comparative Health Effectiveness with Medical and Invasive Approaches, $89,541, Duke University

Spertus, John -- Personalized Medicine and Outcomes Center (PMOC), $96,878, University of Kansas Medical Center Research Institute, Inc.

Spertus, John -- Personalized Medicine and Outcomes Center (PMOC), $96,878, University of Kansas Medical Center Research Institute, Inc.

Spertus, John -- Heartland Institute for Clinical and Translational Research (HICTR), $0, University of Kansas Medical Center Research Institute, Inc.

Steele, Mark T -- Strategies Using Off- Patent Antibiotics for Methicillin-Resistant Staphylococcus Aureus (Stop Mrsa )- A Phase Iib, Multi-Center, Randomized, Double-Blind, Clinical Trial, $463,354, University of California, Los Angeles

School of Nursing
Nursing – General

Brotto, Marco Aurelio -- Corporate Sponsored Project, $100,000

Cheng, An-Lin -- Peers Keep It Real: Reaching 100% Adherence to HIV Treatment, $5,171, NIH National Institute of Nursing Research

Gotham, Heather J -- Health Literacy Initiative, $5,545, Health Care Foundation of Greater Kansas City

Gotham, Heather J -- JCMHC Community Reinforcement Approach (CRA) Program, $14,000, Johnson County Mental Health Center

Gotham, Heather J -- Health Literacy Initiative, $4,455, Health Care Foundation of Greater Kansas City

Hunter, Jennifer Lynn -- The Work of Pediatric Chaplains with Parents of Critically Ill Children, $18,037, Children’s Mercy Hospital

Hunter, Jennifer Lynn -- The Work of Pediatric Chaplains with Parents of Critically Ill Children, $9,199, Children’s Mercy Hospital

Kimble, Susan J -- Bridging the Disparities Gap: Strengthening Community-based Healthcare Delivery in an Urban Setting, $487,572, Health Research Services Administration

Kimble, Susan J -- Bridging the Disparities Gap: Strengthening Community-based Healthcare Delivery in an Urban Setting, $483,286, Health Research Services Administration

Krom, Laurie Jean -- Foundations of Medication-Assisted Treatment Learning Experienc, $0, National Council for Community Behavioral Healthcare

Krom, Laurie Jean -- Addiction Technology Transfer Centers (ATTC) TI-12-008, $363,732, University of Wisconsin - Madison

Lacey Haun, Charlotte Lora -- Missouri Western Cooperative Agreement, $152,840, Missouri Western State University

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Russell, Cynthia Lorraine -- Adherence in Those Waiting for a Kidney Transplant, $1,277.62, NATCO -The Organization for Transplant Professionals

Stilen, Patricia L -- ARK & OKL Regional ATTC Planning and Training Activities, $76,000, University of Texas at Austin

Stilen, Patricia L -- Region 7 NIDA, $650,000, Substance Abuse and Mental Health Services Administration
Wilson, Thad R -- Scholarships for Disadvantaged Students at UMKC, $600,000, Health Research Services Administration

Wilson, Thad R -- Scholarships for Disadvantaged Students at UMKC, $562,740, Health Research Services Administration

Witt, Jacquelyn S -- Family Planning Clinical Training Cooperative Agreement, $550,000.51, Office of Public Health and Science

School of Pharmacy

Pharmaceutical Sciences

Cheng, Kun -- Targeted Delivery of PCBP2 Sirna for Treating Alcoholic Liver Fibrosis, $342,697, NIH National Institute on Alcohol Abuse and Alcoholism

Johnston, Thomas -- Corporate Sponsored Project, $ 47,710

Mitra, Ashim K -- Corporate Sponsored Project, $58,764

Mitra, Ashim K -- Corporate Sponsored Project, $105,700

Mukherji, Mridul -- Rescue of TET2 Haploinsufficiency in Myelodysplastic Syn, $162,500, US Army Medical Research and Materiel Command

Mukherji, Mridul -- Rescue of TET2 Haploinsufficiency in Myelodysplastic Syndrome Patients Using Turbo Cosubstrate, $30,000, Aplastic Anemia and MDS International Foundation, Inc.

Youan, Bi Botti Celestin -- Prevention of HIV/AIDS by Stimuli-Sensitive Nanomedicine for Microbicide Delivery, $342,217, NIH National Institute of Allergy and Infectious Diseases

Pharmacology & Toxicology

Kumar, Anil -- Alcohol Abuse and HIV-Mediated Neurotoxicity, $16,500, NIH National Institute on Alcohol Abuse and Alcoholism

Kumar, Anil -- 1RDMethamphetamine and AIDS in a Non-Human Primate Model, $437,511, NIH National Institute on Alcohol Abuse and Alcoholism

Kumar, Anil -- Alcohol Abuse and HIV-Mediated Neurotoxicity, $337,500, NIH National Institute on Alcohol Abuse and Alcoholism

Kumar, Anil -- HIV, Drug Abuse and Neurotoxicity, $274,722, NIH National Institute on Alcohol Abuse and Alcoholism

Pharmacy Practice
DiDonato, Kristen Lee -- Patient Perceptions of Using a Pharmacy-Initiated, Mobile Technology Adherence App to Improve Adherence to Statin Therapy in Community Pharmacy Patients, Mobil, $2,500, National Association of Chain Drug Stores Foundation

Nelson, Leigh Anne -- Recovery After an Initial Schizophrenia Episode (RAISE), $24,850, The Feinstein Institute for Medical Research

Rasu, Rafia Sultana -- Economic Evaluation of Clinical Interventions to Motivate Smokers to Quit, $2,300, University of Kansas Medical Center Research Institute, Inc.

Vice Chancellor Student Affairs

Student Financial Aid

Merz, Nancy Sue -- Missouri Department of Higher Education Default Prevention Grant, $25,000, Missouri Department of Higher Education

A student researcher getting ready for face+iris-ocular vasculature multi-biometric scan using a multi-focal structured light system developed in house.

Multispectral imaging for next generation ocular biometrics using multispectral structured light system developed in house.
University of Missouri Research Board
Awards FY2013
College of Arts & Sciences

**Chemistry**
Van Horn, David -- Biomineral and Materials Study with Positron Techniques, $12,000

**English**
Frangos, Jennifer -- The Learning Lady and the Life of the Mind in 18th- and 19th- Century British Culture, $5,720

**History**
Freeman, David -- With Money and Marriage: Dutch Merchant Networks in the South Atlantic, $12,960

**Philosophy**
Rinard, Susanna -- Should You Believe What Will Make You Happy?, $9,236

Tulodziecki, Dana -- The Epistemology of Scientific Methodology, $10,000

**Physics & Astronomy**
McIntosh, Daniel -- Identifying First Generation Elliptical Galaxies, $10,000

**Sociology**
Hardie, Jessica -- The Development of Young Women’s Future Plans in the Transition to Adulthood, $30,000

School of Biological Sciences

**Cell Biology and Biophysics**
Idnurm, Alexander -- Ballistospore Genes in Basidiomyocete Fungi, $54,657

**Molecular Biology and Biochemistry**
O’Connor, Michael -- Ribosomal Recruitment of the Trans-Translation Complex, $47,266

Price, Jeffrey -- Carcadian Control of Cell Death and Neurodegeneration, $56,464

School of Computing and Engineering

Chowdhury, Masud -- Technology and Design Hierarchy Independent Modeling and Analysis of Thermal Effects in Nanoscale, $34,387
Lee, Yugyung -- Active Mobile Interface for Promoting Active Lifestyles, $33,693

School of Medicine

Biomedical & Health Informatics

Gerkovich, Mary -- Exploratory investigation of factors associated with linkage, engagement, and retention in medical care, $21,945

Identification of a new ion channel protein in the retina using confocal laser scanning microscopy. The new protein is labeled with a green fluorescent marker while the DNA of cell nuclei is labeled in blue and the nerve cells that connect the retina to the brain are stained red (as examples two cells are identified by arrows). This image is part of a study published by researchers from UMKC’s Vision Research Center: Neuroscience, 2012, 202:99-107.