Office of Research Administration and Graduate School Newsletter

THE UNIVERSITY OF MISSOURI – ST. LOUIS

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Our goal is to inform the campus community of grants received, to highlight the accomplishments of our faculty and students, and to share with you a calendar of important events and deadlines. Please send any comments regarding the newsletter to *cocalis@umsl.edu*.

The Office of Research Administration

Are You Submitting a Proposal for External Funding?

Due to the conversion to People Soft, the ORA must have a signed Grant Data Form before your proposal may be submitted to an outside agency.

New NIH Grant Guidelines: Required Data Sharing

The National Institutes of Health (NIH) has released a draft statement on sharing research data, with comments due by June 1. The final statement will include **guidelines that must be met by all NIH-funded projects**. Go to: http://grants1.nih.gov/grants/policy/data_sharing/index.htm to find the draft statement, the Frequently Asked Questions (FAQs), and the Data Sharing Workbook. NIH anticipates announcing the new policy on August 1 with an **effective date of January 1, 2003.** If you cannot access this material online and wish to have a paper copy, call Jane Cocalis in the Office of Research Administration at ext. 6336. NOTE: The FAQs and Workbook contain details regarding (1) possible methods of data sharing, (2) reasons to be excused from data sharing, and (3) redaction of data to protect human subjects.

U.S. Dept. of Agriculture to Adopt Federal Electronic Grants System

The U.S. Department of Agriculture has announced its intention to phase in implementation of the federal electronic ("e-grants") system starting with Cooperative State Research, Education, and Extension Service (CSREES) funding proposals. Developed by the National Science Foundation (NSF) and the National Institutes of Health, the e-grants system is presently being used by NSF as the sole means of processing grant proposals. The USDA/CSREES will begin using electronic proposal submission for the FY2004 proposal cycle and anticipates that by FY2005 all proposal and award transactions will be conducted electronically.

Winter 2002 Research Board Awards

Pamela Ashmore, Anthropology, awarded $19,366 for "Preliminary Investigation of Baboons in Sinya, Tanzania"

Alexei Demchenko, Chemistry, awarded $35,000 for "New Methods for the Stereoselective Cis-Glycosylation"

Yael Even, Art and Art History, awarded $3,600 for "Cavalier Display of Sexual Violence in Ducal Florence"

John Fausz, History, awarded $6,000 for "Missouri, 1764-1825--Virginia's Final Frontier"

Bruce Jacobs and Richard Wright, Criminology and Criminal Justice, awarded $7,500 for "Criminal Retaliation: A Qualitative Study"

Vasudevan Lakshminarayanan, Optometry, awarded $30,000 for "Motion Perception in Older Adults"

Herman Smith, Sociology, awarded $10,000 for "Extending a Chinese Affect Control Model to Taiwan"

Eric Wiland, Philosophy, awarded $6,000 for "Practical Reason and Practical Rationality"

Anne Winkler and Timothy McBride, Economics, awarded $19,021 for "The Economic Balance of Power in Married Couples"

April, 2002 Externally Funded Awards

Timothy Baumann, Anthropology, awarded $23,900 for "Rehabilitation of the UM-St. Louis' Archaeological Associated Documents" by the State of Missouri Archives

Eric Baumer, CCJ, awarded $34,998 for "Temporal Variation in Police Notification by Victims of Rape and Sexual Assault" by the U.S. Department of Justice

Eric Baumer and Noelle Fern, CCJ, $15,000 for "The Influence of Community Context on the Processing and Sentencing of Felony Defendants in 54 U.S. Counties (student fellowship)

Donald Becker, Chemistry, awarded $110,000 for "CAREER: Spectroelectrochemical Studies of the Novel PutA Flavoprotein and Its Macromolecular Associations" (student fellowship) by the National Science Foundation

Edward Bennett and Bruce Morgan, Optometry, awarded $1,083 for "Evaluation of the Boston XO Orthokeratology Contact Lens for Overnight Wear" by Polymer Technologies

Charles Chui, Mathematics and Computer Science, awarded $90,146 for "NURBS-Wavelets for Surface Design, Analysis, Visualization, and Applications" by the U.S. Army

Harold Harris, Chemistry and Education, awarded $13,227 for "Chemistry Textbooks in Print On-Line" by the Journal of Chemical Education

Elizabeth Kellogg, Biology, awarded $13,800 for "The Genetic Basis of Morphological Differences Between Two Species of Setaria (*Poaceae*)" by the National Science Foundation

Donald Kridel, Economics, awarded $55,004 for "The Use of Econometric Models in an ASP Environment" by Copper Key Technologies

Frank Moss, Center for Neurodynamics, awarded $50,000 for "Stochastic Synchronization, Pattern Formation and Information in Biological Systems" by the Office of Naval Research

Carolyn Neal, Education, awarded $17,743 for "Missouri Accelerated Schools Project" by the Missouri Department of Elementary and Secondary Education

Carolyn Neal, Education, awarded $15,000 for "Missouri Accelerated Schools Project (Mann School)" by the St. Louis Public Schools

Carolyn Neal, Education, awarded $15,000 for "Missouri Accelerated Schools Project (Mason School)" by the St. Louis Public Schools

Carolyn Neal, Education, awarded $15,000 for "Missouri Accelerated Schools Project (L'Ouverture School)" by the St. Louis Public Schools

Pallavi Nishith, Psychology, awarded $118,800 for "Substance Use and Dissociation as Risk Factors for PTSD" by the National Institute on Drug Abuse

Patricia Resick, Psychology, awarded $346,404 for "Cognitive Processes in PTSD: Treatment" by the National Institute of Mental Health

Thomas Schnell, Education, awarded $65,192 for "Missouri Assessment Program (MAP) Regional Center" by the Missouri Department of Elementary and Secondary Education

Total for April: $1,000,297

Faculty Spotlight: Dr. Wesley Harris, Professor of Chemistry and Biochemistry

Wesley Harris joined the UM-St. Louis faculty as an Associate Professor of Chemistry in 1989. After receiving his Ph.D. from Texas A&M University, he held a postdoctoral fellowship at the University of California-Berkeley. From there, he moved to the Laboratory for Energy Related Health Research, a Department of Energy facility at the University of California-Davis, to study the health effects of energy-related materials such as the radionuclides from nuclear waste. Harris then spent four years as a faculty member at the University of Idaho before coming to UM-St. Louis.

In the UMSL Chemistry department, Harris is a member of both the inorganic and biochemistry divisions where he teaches undergraduate and graduate courses. The interdisciplinary nature of his research is also reflected in the range of journal articles that he is asked to review for journals such as *Inorganic Chemistry*, *Coordination Chemistry Reviews*, the *Journal of Inorganic Biochemistry*, *Biochemistry*, the *Journal of Molecular Biology*, and *Toxicological Sciences*. He is also an external advisory panel member for an NIH Program Project (Einstein College of Medicine, New York).

When asked about his research interests, Professor Harris explained:

> "My research in inorganic biochemistry addresses the role that metal ions play in biological systems with a primary focus on the chemistry of transferrin, an iron transport protein that acts as an 'iron taxi.' It binds the iron to form a non-toxic complex, transports it through the blood, and delivers it specifically to those tissues that need iron.
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> "This transport system works quite well in healthy individuals. However, several forms of anemia require patients to receive regular transfusions of whole blood. Without intervention, the iron in this blood will gradually accumulate to lethal levels. So a patient receiving regular transfusions must be treated simultaneously with chelation therapy, a process by which a compound will scavenge iron in a chemical form that the body will excrete. During chelation therapy, the tenacity with which transferrin binds iron becomes a serious disadvantage and it becomes much more difficult to remove the body's excess iron.
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> "A joint project, with Chris Spilling (Department of Chemistry and Biochemistry), William Welsh (formerly at UMSL, now at the New Jersey School of Medicine), and Ross MacGillivray (University of British Columbia), involves a search for a more effective compound to use in iron chelation therapy. We design, synthesize, and test new compounds to remove iron from transferrin as rapidly as possible. Currently, we are preparing the second generation of compounds that will be chemically modified to bind iron strongly when present at lower, pharmacologically reasonable concentrations yet continue to work rapidly.

"Transferrin also binds toxic metal ions such as plutonium, one of the key constituents of nuclear waste. Over the past twenty years we have studied the binding of about twenty different metal ions to transferrin and addressed some basic chemical questions, such as how tightly the metal binds to the protein, what factors control the specificity of the protein for one metal ion over another, and whether we can use information about one metal ion to predict the binding affinity of another metal ion.

"One of the major applications to come from this work is the incorporation of transferrin into computer models for the speciation of metal ions within the blood. Our current focus is on the speciation of aluminum in blood to which we are all exposed at high levels in over-the-counter medications, drinking water, and processed foods. Individuals with normal kidney function can handle this metal rather easily, but people with poor kidney function are at risk of over-accumulating aluminum, which can lead to a dementia having symptoms similar to those of Alzheimer's disease. Computer models of the aluminum in blood will be used to understand the metabolism of this metal and to screen potential compounds for use in aluminum chelation therapy."

Professor Harris has produced approximately 90 publications, including seven invited reviews and book chapters. Since coming to UM-St. Louis, he has supervised six doctoral students, five postdoctoral research associates, and eleven undergraduate research projects. Funding for his research has come primarily from the National Institutes of Health.

Over the past six years, he has also been heavily involved in establishing new biochemistry programs. The department has added a biochemistry emphasis area within the B.S. degree in chemistry, revised the Biochemistry Certificate Program, and established a division of Biochemistry within the Ph.D. program. He and Teresa Thiel of the Biology department are working to establish an interdisciplinary degree program in Biochemistry and Biotechnology; this program is currently under review by the U.M. system. As part of this continuing effort to enhance life sciences programs at UM-St. Louis, Harris currently represents the St. Louis campus as an associate director of the University of Missouri Bioinformatics Consortium. This new group's goals are to enhance the computational resources of the UM system and to coordinate access to advanced computational facilities for faculty across the four campuses.

Professor Harris is also the departmental safety coordinator for the Department of Chemistry and Biochemistry. He has helped establish new procedures for handling chemicals and responding to laboratory accidents, and teaches a course for new graduate students on laboratory safety and proper handling of hazardous waste. In addition, Harris has served on the UM Research Board for the past four years. Presently, as an outgrowth of his working on research projects for private companies, he is focusing on issues related to intellectual property and technology transfer. In the Fall, he will serve as the Chair of the UM Patents and Licensing Committee.

Meetings and Internal Deadlines

- **June 20** IRB meeting*
- **July 18** IRB meeting*

NOTE: The IRB Committee will not meet during the month of August

*IRB protocols are due in the Office of Research Administration **10 days before the meeting** to be reviewed at that month's meeting

Application Deadlines

June 6 **National Science Foundation (NSF):** Course, Curriculum, and Laboratory Improvement (CCLI) – optional letter of intent was due April 22; full proposals due June 6 **http://www.nsf.gov/** or (703) 292-8666

June 13 **Department of Energy**: formal applications due for Energy Biosciences Program; **http://www.firstgov.gov** or (301) 903-2873

June 14 **Dreyfus Foundation**: Special Grant Program in the Chemical Sciences; preliminary proposal due June 14 with full proposal due August 30 **http://www.dreyfus.org** or (703) 292-7188

June 15 **NSF**: Undergraduate Mentoring in Environmental Biology – Planning Activities (nsf02066) **http://www.nsf.gov/** or (703) 292-8521

June 15 **NSF**: Global Change Research - Ecological Rates of Change (EROC) **http://www.nsf.gov/** or (703) 292-8480

June 17 **Canadian Studies**: Program Enhancement Grant and Conference Grant Program **http://www.acsus.org** ; email **info@acsus.org**; or (202) 393-2580

June 18 **NSF**: Water Cycle Research (WCR) (nsf02101) **http://www.nsf.gov/** or (703) 292-8549

June 25 **National Institute of Justice** – Data Resources Program (800) 851-3420 or **http://www.firstgov.gov**

June 27 **NSF**: NIH-NSF Bioengineering and Bioinformatics Summer Institutes Program (BBSI); optional letter of intent was due May 26 (nsf02109) **http://www.nsf.gov/** or (703) 292-7946

June 28 **NSF**: Research Coordination Networks (RCN) in the Biological Sciences (nsf0056) **http://www.nsf.gov/** or (703) 292-8096

July 1 **Office of Naval Research**: Postdoctoral Fellowship Program (202)331-3525 or **http://www.asee.org/fellowship/**

July 1 **Environmental Protection Agency**: Environmental Futures Research in Nano-scale Science, Engineering and Technology **http://www.firstgov.gov** or (202) 331-3525

July 1 **NSF**: Advanced Computational Research Program (nsf98168) (703) 292-8962 or **http://www.nsf.gov/**

July 1 **NSF**: Social, Behavioral, and Economic Research - various topics **http://www.nsf.gov/**

July 8 **NSF:** Biological Databases and Informatics (nsf02058) email **sspengle@nsf.gov** or **http://www.nsf.gov/**

July 10 **NSF**: Molecular and Cellular Biosciences - various topics **http://www.nsf.gov/**

July 10 **NSF**: Environmental Biology - various topics **http://www.nsf.gov/**

July 10 **NSF:** Integrative Biology and Neuroscience - various topics
http://www.nsf.gov/

July 15 **American Heart Association**: Established Investigator Grant, Scientist Development Grant, and Grant-in-Aid programs (214) 706-1457 or **http://www.amhrt.org/**

July 15 **NSF**: Social, Behavioral, and Economic Research – various topics
http://www.nsf.gov/

July 15 **NSF**: Developmental and Learning Sciences – A Multidisciplinary Program of the Children's Research Initiative (nsf02008) (703) 292-8732 or **http://www.nsf.gov/**

July 24 **NSF**: Ocean Sciences – Buoyancy-Driven Transport Processes (nsf02059) **http://www.nsf.gov/** or (703) 292-8582

July 24 **NSF**: Faculty Early Career Development (CAREER) Program (nsf02111) **http://www.nsf.gov/** or (703)292-8413

William T. Grant Foundation
Faculty Scholars Program

The Grant Foundation's Faculty Scholars Program promotes the research development of promising junior scholars who investigate topics relevant to understanding and promoting the development, mental health, and well-being of adolescents and youth. The Foundation supports original empirical research and the evaluation of innovative programs that help the nation value youth as a resource. The program focuses on youth 8 to 25 years of age, unless studies of earlier age periods are designed to be of particular relevance to later development. The Foundation is particularly interested in junior investigators who can bring a broadened and innovative focus to youth development research, such as those from "diverse disciplines…or minority scholars who are underrepresented in research on adolescence and youth."

Nominations must be made by **July 1**. Go to **http://www.wtgrantfoundation.org/**; email **bmodahl@wtgrantfdn.org**; or call (212) 752-0071 for additional information.

National Endowment for the Humanities
Preservation, Access, and Reference Works

The next deadline for this NEH program is **July 1**. Support may be awarded to preserve intellectual content, to aid bibliographic control of library and archival collections, and to stabilize material culture collections. Grants are given for the creation of research tools and reference works, for national and regional preservation training programs, and for research and demonstration projects (which may explore the use of digital technology). Organizations, consortia, and individuals are eligible to apply. For more information, call (202) 606-8570, go to **http://www.neh.gov/grants/guidelines/preservation.html**, or email **preservation@neh.gov**.

NATO Advanced Study Institutes

The Advanced Study Institutes (ASI) promote the dissemination of scientific information, impart experience, and foster professional contacts among scientists. Opportunities are offered to leading scientists, as ASI directors, to organize advanced meetings of a tutorial character, typically of ten working days' duration, involving 12 to 15 lecturers with an audience of 60 to 80 post-doctoral level ASI "students." ASIs are co-directed by a scientist from a Partner country and a scientist from a NATO country; the meetings may be held in either a NATO or a Partner country. Funds are provided to cover organizational expenses, travel and living expenses of lecturers, and partial funding of travel and living expenses of ASI students. Deadlines for receipt of applications for all of the support mechanisms are as follows. Physical and Engineering Science (PST): Mar 1, **Aug 1**, and Nov 1. Life Sciences (LST) and Environmental and Earth Sciences (EST): April 1, **Sept 1**, and Dec 1. Security-Related Civil Science (SST): Feb 1, May 1, and **Oct 1**. For more information, email **science@hq.nato.int**; write to Advanced Study Institutes Programme, Scientific Affairs Division, NATO, Bd. Leopold III, B-1110 Brussels, BELGIUM; or go to **http://www.nato.int/science/e/asi/htm**.

Elizabeth Glaser Pediatric AIDS Foundation
Requests for Applications (RFAs)

The Elizabeth Glaser Pediatric AIDS Foundation is announcing RFAs in four award categories: The Elizabeth Glaser Scientist Award, a five-year award of up to $650,000 for outstanding scientists to conduct research in pediatric HIV/AIDS, with letters of intent due **June 13** (contact **EGSA@pedaids.org**); Basic Research Grants of up to $200,000 for "novel and innovative research," with letters of intent due **July 18** (contact **Basic@pedaids.org**); Scholar Awards offering postdoctoral fellowships ranging from $30,000-$48,000/year, with letters of intent due **July 18** (contact **Basic@pedaids.org**); and Short-term Awards that provide up to $10,000 for travel, per diem, housing, research supplies or other costs as needed on short-term projects, with letters of intent due **July 18** (contact **Basic@pedaids.org**). Off-cycle applications are also accepted for the Short-term Awards. Application forms and further information are downloadable at **http://www.pedaids.org** or call (301) 314-1459. To receive notification of future program announcements, send your email address to **Research@pedaids.org**.

National Science Foundation
International Materials Institutes

The aim of this program is to establish International Materials Institutes (IMI) that will enhance international collaboration between U.S. researchers and educators and their counterparts in specific regions of the world, such as Africa, the Americas, Asia, Europe, or the Pacific region. These institutes will advance fundamental materials research by coordinating international projects involving condensed matter and materials physics; solid state and materials chemistry; and the design, synthesis, characterization, and processing of materials to meet global and regional needs. Proposals are due **June 6.**

The institutes must be university-based and provide a research environment that will attract leading scientists and engineers. This may be accomplished, for example, by supporting research in selected thematic areas by networking with other universities, centers, and national facilities. An important aspect of the IMI's activities will be to integrate materials research with education. It is anticipated that 3 awards will be made in FY 2002, ranging from $500,000 to $1 million per year per award. For further information, go to **http://www.nsf.gov/cgi-bin/getpub?nsf02096**; email **dnelson@nsf.gov**; or call (703) 292-4932.

National Science Foundation
Strategic Technologies for the Internet
Accelerating Technology Creation

NSF's Strategic Technologies for the Internet (STI-2002), Accelerating Technology Creation program has a deadline of **June 5** for receipt of proposals. The purpose of this program is to improve the operational or functional capabilities of the Internet and to enable related collateral efforts for the benefit of the research and education community. Areas of support include but are not limited to: (1) complex network monitoring, problem detection and resolution mechanisms; (2) development of automated and advanced network tools, networked applications tools or network-based middleware; (3) creation of usable and widely deployable networking applications that promote collaborative research and information sharing; and (4) innovative access network technologies. Approximately $10 million is expected to be available for 20 awards. For information, go to **http://www.nsf.gov/cgi-bin/getpub?nsf02093**; email **anir-sti@nsf.gov**; or call (703) 292-8948.

Note to Those Looking for Grant or Fellowship Funds

We now have the **IRIS search service (http://www.library.uiuc.edu/iris/)**. You can conduct a search at any time and/or set up a profile to receive periodic "hits" when an opportunity matches your key words (click on "IRIS Alert Service" and follow the directions to set up this option—**be sure to click "Profile ON")**. Those of you who previously used InfoEd's SMARTS will need to set up a replacement profile on the IRIS Alert Service.

In addition to IRIS, we also subscribe to the **Grant Advisor Plus** service, which can be accessed via the Office of Research Administration's web page on the UMSL website. You may also use the federal government's search engine, which also covers many private funding opportunities, at no cost. Go to **http://www.firstgov.gov** to use this service. If these traditional search methods fail to turn up usable funding sources, try the Google search engine (**http://www.google.com**).

- For assistance in setting up a profile on IRIS or other computer-use matters, please contact Brenda Stutte, **stutte@umsl.edu** or ext. 5897.
- For more information about the search services available on our campus or to locate the Grant Writer assigned to your division to assist you with locating funds and developing proposals, please contact Jane Cocalis, **cocalis@umsl.edu** or ext. 6336.

The Graduate School

Meetings and Deadlines

June 7	Names of Candidates for Master's and Doctoral Degrees Graduation List is submitted to the Graduate School
June 21	Formal Degree Program (M-1) Request for transfer credit Request for substitutions or additions of courses or rectification of incomplete grades
June	Application for Master's Degree (M-4) Dissertations submitted in essentially final form (D-6, D-7, D-8, D-9, D-10)
July 5	Theses submitted in essentially final form (M-3)
July 19	Report of dissertation or thesis defense (M2CR/D7CR)
August 9	Final Approval of Doctoral Dissertation or Master's Thesis (Form D-10/M-5)

Oral Defense

May 28	**Susanne K. Wickie**, examination for the Doctor of Philosophy in Psychology *Cognitive Flexibility and Empathy in Women with Multiple Sclerosis*

Commencement

- The Summer 2002 commencement ceremony will take place **August 11, 2002** at the Mark Twain Athletic and Fitness Center on Campus.
- NOTE: commencement information for both faculty and students can be found at http://www.umsl.edu/commencement

W.E. Upjohn Institute for Employment Research
Dissertation Award

The W.E. Upjohn Institute for Employment Research invites submissions for its annual prize for the best doctoral dissertation on employment-related issues. The dissertation may be written in any academic discipline, but it must have a substantial policy thrust. Applications are due **July 5**. A panel of economists will review the dissertations using the following criteria: policy relevance, technical quality of the research, and presentation. Any person whose dissertation has been accepted during the 24-month period of July 1, 2000 to June 30, 2002 is eligible. The first prize is $2,000 and up to two honorable mention awards of $750 each may also be given. For more information, go to http://www.upjohninst.org/dissert.html; email award@we.upjohninst.org; or call (616) 343-5541.

Heartland Affiliate of the American Heart Association
Pre-doctoral Fellowships

The Heartland Affiliate of the American Heart Association, which includes the St. Louis, Missouri area, is offering 1 or 2 years of stipend support with an option to reapply for a third year. The stipend of $21,000 maximum per year is available to full-time students working toward the Ph.D. degree; the application deadline is **July 17.** Applicants must pass their qualifying or comprehensive exams prior to activation of the award, and the award should terminate with successful defense of the dissertation. For further information email **affil@heart.org**; Fax: (214) 706-1341; or call (214) 706-1457, -1158, or -1458.

Graduate Student Awards

Please contact our office *(heckel@umsl.edu)* if you know of any scholarships/fellowships received from outside sources by your departments and we will mention them in next month's newsletter.