

# Research News

Please circulate to:

\_\_\_\_\_  
\_\_\_\_\_

OFFICE of RESEARCH and SPONSORED PROGRAMS

October 2008

## A REMARKABLE YEAR

### A Message from Associate Provost for Faculty Affairs Mark Welker

Fiscal Year 2007 represented a surge of energy rewarded by accomplishment. Our faculty requested over \$49 million in new external support, up almost \$8 million over 2006-2007. They received almost \$9 million in new awards, up more than \$1 million over 2006-2007, and in a national environment where many other universities have seen their external funding flatten or fall. There is no way to truly capture or to acknowledge the enormity of the work represented here. The best we can do is say thank you often.

In addition to the work of our faculty, dedicated staff in the Office of Research and Sponsored Programs, Financial and Accounting Services, and Compliance as well as departmental business managers work hard to help our faculty get new awards and to administer them after receipt. They deserve our congratulations as well.

In 2007-2008, the Department of Health and Exercise Science received the most external funding at \$1.76 million, followed closely by Biology and Physics. The Biology Department received the most awards at 18, followed by Physics, Health and Exercise Science, and Anthropology. The Department of Computer Science more than doubled the amount received

last year. One faculty member won a Guggenheim Fellowship (Sarah Watts, History) and three won Fulbright Fellowships (Sylvain Boko, Economics; Jon Duchac, Calloway; and David Weinstein, Political Science). Several faculty members were principal investigator on two or more new external research awards (Jennifer Burg, Computer Science; Errin Fulp, Computer Science; Ellen Miller, Anthropology; and Miles Silman, Biology).

Thanks again to faculty and staff for a job well done in 2007-2008.

On another note, congratulations to Gloria Stickney, who has accepted a new position as Business Manager for the Physics Department. Her last day as ORSP's Coordinator of Research Services was September 30. While she will certainly be missed in the office, this position is a promotion and great professional opportunity for her. Gloria has been with ORSP since July 2004 and at Wake Forest University since 1999.

The office is actively seeking to fill the Coordinator, position and hopes to hire someone this fall.

Mark E. Welker

Associate Provost for Faculty Affairs

INSIDE

SUCCESSFUL WRITERS WRITE 2

OUTSTANDING PROJECT PROFILE 3

IRB AND COMPLIANCE NEWS 5



WAKE FOREST  
UNIVERSITY

## SUCCESSFUL WRITERS WRITE

This year, Associate Provost for Faculty Affairs Mark Welker and ORSP assisted James F. Cotter, Benson-Pruitt Associate Professor of Finance, in initiating a 2-month workshop to help faculty raise their research productivity through consistent writing habits and collegial feedback. Participants attend about 15 45-minute writing circles, receive \$500 in compensation, and enjoy a graduation banquet.

The course began 29 August with a presentation by Tara Gray, Associate Professor of Criminal Justice, Director of the Teaching Academy at New Mexico State University, and author of 3 books, including *Publish and Flourish*. Dr. Gray's insight into writing developed when a paper she had labored over was rejected. Once she had revised and seen it published, she realized she had invested about 100 hours per page. The lessons she drew: share your work with others, especially nonexperts who will notice your style, and listen to criticism – shake off hurt feelings and combativeness to glean broader messages about your clarity and logic of presentation.

**Managing Time.** Our faculty agreed that they write best for a deadline. Most faculty say that the present moment is the busiest of their life; however, when asked to log hours spent on total work, research, and writing, a test population exaggerated the hours spent on each by a factor of 2. This perceived busyness encourages a sense of victimization and inertia.

Instead, distinguish the urgent and the important. Faculty tend to make teaching and service urgent. Dr. Gray finds that writing early in the morning, before class, protects her from demands that arise as the day progresses. Whatever time you choose, stick to it and make others aware that it is inviolate. Reserve a comfortable place that offers few distractions.

Write 15-30 minutes a day; you'll never have uninterrupted weeks, and a study found that "binge writing" – over 3 hours at a sitting – decreased productivity. In another study, those who didn't commit to write generated 7 pages; those who did generated 64 pages; those who also kept and shared logs of the time they spent writing generated 167

pages, and 100% finished manuscripts. Share your log with someone you know or join a writing club (see [www.academicladder.com](http://www.academicladder.com)) for \$50 a month. Share your spreadsheet daily for a month, then weekly.

**Writing.** Writing is outlining, journaling, drafting, revising, polishing, and working on figures. Write from the day you begin research not after the literature review is complete because research and writing are not separate activities: writing daily, however informally, can direct and streamline the project.

Editors must remind even senior authors of (1) the macro level - have you communicated your point? (2) the middle or paragraph level - is the organization effective? and (3) the micro or sentence level: is the style effective? Develop a short, memorable thesis statement, post it, and write to it. Paragraphs should follow a template of consistent length and structure: transition, key sentence, evidence. Key sentences help readers to navigate your argument. They're simple and don't try to prove the point. Use them to prompt your daily writing and to write abstracts.

**Getting Help.** Dr. Cotter will model *writing circles* with Writers Write participants. The ground rules include giving everyone the same 15 minutes' attention, enforced by a timekeeper; writers listen, while readers try to pick out the key sentences and discuss their effectiveness.

Share early drafts with nonexperts but send experts nearly final drafts because now you want to impress. Tailor your letter to each; explain how their work informed yours; ask "What other articles should I read and cite? To what journal would you send this paper?" Explain that you'll be delighted if they spend even 20 minutes reading it; mention that you'll acknowledge their contribution; volunteer to read and comment on their work; ask for a 2-3 week turnaround.

When you query journal editors, email to say that you'd like to submit your paper. Include the title and an abstract in the body of the message, ask how well it seems to fit the journal's mission, and attach the whole paper. If you don't hear back, wait 2 weeks and write again. Regardless of the outcome, thank the editor.

# OUTSTANDING PROJECT PROFILE

## DIGITAL FORSYTH



Z. Smith Reynolds Library, the School of Medicine's Coy C. Carpenter Library, the Winston-Salem State University Archives at the C. G. O'Kelly Library, and the Forsyth County Public Library have won three successive years of funding,

building on an initial planning grant, to preserve Forsyth County history online. "Digital Forsyth" gathers and contextualizes their collections of nineteenth, twentieth, and twenty-first century photographs, focusing on local people, places, businesses, institutions, and events significant to North Carolina and national cultural heritage.

Grants from the federal Institute of Museum and Library Services (IMLS), under the provisions of the federal Library Services and Technology Act (LSTA), and administered by the State Library of North Carolina, a division of the Department of Cultural Resources, support the equipment and staff to scan and digitize the images.

Principal Investigator Susan Smith, Head of Research, Instruction, and Technology Services at Z. Smith Reynolds Library, said that the project will ultimately digitize 12,000 images. "By assimilating them into a comprehensive online digital collection, we can offer a presentation that exhibits local, regional and statewide value to North Carolina residents, students, scholars and lifelong learners."

Photos of the Reynolda campus dating from 1954 include faculty, staff, organizations, buildings, classrooms, and NCAA Division I athletics. Carpenter Medical Library photos date to the 1920s, when the North Carolina State Baptist Hospital and the North

Carolina Baptist Hospital School of Nursing opened in Winston-Salem.

Forsyth County Public Library hosts the Bill East Collection. East was a reporter who later became the editor of the Twin City Sentinel, and photos in the collection date back to the 1870s. Librarian Molly Rawls said, "The photographs show places in town that no longer exist and people who had an important role in shaping the city's history. We hear some of their names ascribed to schools and other buildings, but the photographs show that the person actually lived and worked in Winston-Salem."

The collection at Winston-Salem State's O'Kelly Library dates to the school's founding in 1892 as Slater Industrial Academy. It sheds light on African-American higher education and collegiate athletics in the Jim Crow South.

View this unique resource at <http://www.digitalforsyth.org/> and see the R. J. Reynolds house under construction (late 1880s), the Zinzendorf Hotel fire, (1892), the front of the Amuzu Theatre at 116 W. Fourth Street; the Smokers' Den (1918), the Carolina Theatre marquee on West Fourth Street, moving the Zevely House from Oak Street to the corner of West Fourth and Summit Streets (1974), and scenes from the Piedmont Leaf Tobacco Plant Strike (1946) and the collapse of the water reservoir in 1904.



## NIH TRANSITIONS TO ADOBE-BASED FORMS

<http://grants.nih.gov/grants/guide/notice-files/NOT-OD-08-117.html>

The National Institutes of Health will switch from PureEdge to Adobe-based grant forms on 1 January 2009. Exceptions include Small Business Innovation Research/Small Business Technology Transfer and Conference applications for the 7 January AIDS deadline and Funding Opportunity Announcements (FOAs) with nonstandard deadlines expiring on or before 31 January.

Adobe forms will be available in December. Grants.gov will not accept PureEdge applications after the transition dates.

The overall electronic submission process remains the same, and changes are mainly cosmetic. Still, applicants must not use versions of Adobe Reader earlier than 8.1.2. Grants.gov requires a specific version of Adobe Reader to open, download, save, and submit an Adobe application. The latest are listed and updated (see [Download Software](#)).

**ORSP staff will be ready to help you.**

## NIH POLICY CHANGE ON RESUBMISSIONS

Beginning 25 January 2009, NIH will accept only a single amendment to new and competing renewal applications. Failure to receive funding after two submissions will now mean that the project should be substantially redesigned rather than resubmitted with incremental changes in response to critique. See <http://grants.nih.gov/grants/guide/notice-files/NOT-OD-09-003.html>.

## NIH REFORMS TIMELINE

from *Federal Grants and Contracts* 32, 38 (25 September 2008)

NIH has announced a peer review reform schedule based on “significant dialogue” with internal and external communities.

A new 12-page limit for research project grants—down from 25—will begin in January 2010. A new criteria-based scoring process will begin in May 2009. Reviewers will provide more detailed feedback through scores and critiques for each criterion—significance, approach, innovation, investigators, and environment—in a structured summary. In 2009, triaged applications will receive a preliminary score, so investigators will have some idea of their proximity to the payline.

NIH aims to avoid bias toward more conservative approaches at the expense of innovation and originality. For example, in 2009, “Early Stage Investigator” applications will be reviewed together.

Many changes focus on recruiting and retaining the best reviewers. For example, new reviewers will have more flexibility about when they serve. This year, reviewers submitting applications could skip standard deadlines in favor of a “continuous submission” option. Pilot studies in 2009 will assess the feasibility of virtual and out-of-town meetings as alternatives to in-person panels.

See <http://grants.nih.gov/grants/guide/notice-files/NOT-OD-08-118.html>.

## CHANGES TO NSF'S PROPOSAL AND AWARD POLICIES AND PROCEDURES GUIDE

from *Federal Grants and Contracts Weekly* 32, 40 (9 October 2008)

To implement the America COMPETES Act (ACA) and to prioritize transformational science, the National Science Foundation has revised and clarified policies and made program changes that will take effect 5 January 2009.

Addressing an ACA mandate, all proposals requesting funds for postdoctoral fellows must present a mentoring plan or will be “returned without review.” Annual and final reports must also update progress on mentoring activities, which include career counseling and training in teaching and mentoring; responsible practices; research ethics; preparation of grant proposals, publications, and talks; and effective collaboration with researchers from diverse backgrounds and fields.

Two new programs will replace the Small Grants for Exploratory Research program. One-year *Rapid Response Research (RAPID)* awards of up to \$200K support time-sensitive investigations of disasters and similar events. *Early Concept Grants for Exploratory Research (EAGER)* will award up to \$300K over 2 years to support high-risk, exploratory, and potentially transformative research. NSF will review proposals for both programs internally.

Other changes bring NSF's salary reimbursement policy more in line with that at other agencies; expand certain grantee obligations to subawardees; replace Social Security numbers in grant systems with new NSF IDs; and accommodate multiple PIs.

See [http://nsf.gov/publications/pub\\_summ.jsp?ods\\_key=nsf091](http://nsf.gov/publications/pub_summ.jsp?ods_key=nsf091)

## PAID CONSULTANTS MUST BE EXTRAMURAL

Reynolda campus faculty cannot be paid as consultants on grant-funded Reynolda campus projects. WFU consultants are asked to sign a consulting agreement with the university, and their fee is paid by Accounts Payable upon receipt and approval of a valid invoice. Faculty working on grants, even those directed by faculty in other departments, must be paid through regular payroll, and any salary is subject to fringe benefits and indirect costs, if allowed by the sponsor. If fringe benefits and indirect costs were not included in the proposal budget, the budget may have to be revised. As a separate legal entity, the Medical School's faculty may be budgeted as consultants on Reynolda campus grants.

## EVALUATION PLANNING RESOURCE

OERL, Online Evaluation Resource Library (<http://oerl.sri.com/home.html>), supported by NSF, can help investigators to design, conduct, and review project evaluations. It offers a large collection of plans, reports, and instruments in several fields as well as professional development modules.

The White House Office of Management and Budget recommends that funding increases be contingent on “rigorous, independent” evaluation plans. It advises grantees to specify measurable results, best methods, number and type of participants, data collection, and instruments and suggests allocating 5-15 percent of grant funds. An independent expert can devise an evaluation to fit time and financial limits and avoid common errors, such as confusing project and evaluation goals and objectives.

# INSTITUTIONAL REVIEW BOARD AND COMPLIANCE NEWS

## EXPEDITED REVIEW OF SOCIAL AND BEHAVIORAL RESEARCH

A report from the National Science and Technology Council discusses the expedited review procedure allowed under federal regulations for certain categories of research involving human subjects. It addresses the following 4 questions, so that researchers, IRB administrators, and IRB members will have a common understanding of how determinations are made:

- What is *expedited review*?
- What is *minimal risk*?
- What kinds of social and behavioral research studies are eligible for expedited review?
- What factors influence successful implementation?

The document reviews the criteria for determining whether a proposed research activity is eligible for expedited review and identifies some strategies that institutional officials may adopt to improve the process at their institutions.

See [http://www.nsf.gov/pubs/2008/nsf08203/index.jsp?govDel=USNSF\\_80](http://www.nsf.gov/pubs/2008/nsf08203/index.jsp?govDel=USNSF_80).

## PURDUE MISCONDUCT CASE: WHAT UNIVERSITIES CAN LEARN

from *Report on Research Compliance* 5, 8 (August 2008)

Every university wants publicity for faculty achievements. Media attention can attract first-rate investigators and students, sponsors and donations, and instill community pride. However, a news release came back to haunt a Purdue University nuclear engineering professor found guilty of 2 out of 12 allegations of misconduct in a scathing extramural committee report.

In a 2002 *Science* paper, Rusi Taleyarkhan claimed that a simple, inexpensive technique, termed *sonofusion*, *bubble fusion*, or *table-top fusion*, generated nuclear energy. He conducted the experiments at Oak Ridge National Laboratory and joined Purdue in late 2003.

Misconduct allegations stem from a news release: “Researchers at Purdue University have new evidence supporting earlier findings by other scientists who designed an inexpensive ‘tabletop’ device that uses sound waves to produce nuclear fusion reactions.” The Purdue researchers were Yiban Xu, a postdoc in nuclear engineering, and Adam Butt, a graduate student in both nuclear engineering and the School of Aeronautics and Astronautics, who said he had not done any work on the “new evidence” experiments and learned that his name had been added to papers about them afterward. The “other scientists” were Taleyarkhan.

An investigation requested by a member of Congress and the Office of Naval Research, which had provided funding for the original project, found that Taleyarkhan “compelled the addition” of Butt’s name on 2 published papers about sonofusion, knowing that he had not contributed, “to create an appearance of collaboration” between Butt and Xu. In the second instance of misconduct, the committee concluded that

Taleyarkhan falsely claimed “independent confirmation” of his previous findings when he was heavily involved in the writing of the 2 papers where authorship was questioned.

“The publication of the 2 papers without Taleyarkhan’s name and the inclusion of a graduate student who did none of the work would probably not have had much of an impact, were it not for the press release and a follow-up publication by Dr. Taleyarkhan in [*Physical Review Letters*] claiming independent verification to both the general and scientific publics.” The committee noted that “most, maybe all, sonofusion experiments that have been claimed to be successful have been run on Dr. Taleyarkhan’s apparatus or with his involvement.”

The committee held that the news release could be considered part of the scientific record: “Falsifying a press release may not necessarily falsify the research record . . . but the overall impression is exceedingly misleading.”

### Lessons for Other Universities

Intervene early. “From small beginnings there developed a tangled web of wishful thinking, scientific misjudgment, institutional lapses and human failings,” the report says. “The broader issues . . . bear upon the interactions between science and government, public communication of science, and the integrity of the research process . . .”

Keep out “personal acrimony”. Scientists “have to be able to bury any perceived insults and their personal feelings about their critics and work dispassionately together to resolve scientific disagreements.” This conflict grew “to the point where communication ceased in both directions . . .” The “observation” of sonofusion, “as interesting as it is, is not being pursued effectively, and science is the poorer for it.”

Keep the press at bay. The conflict “should have been contained within the department and the university” but instead was “played out in the media.”

Remember the teaching mission. “The committee views the effects . . . on the students and postdoctoral fellows as especially deplorable. Mentors of young scientists need to exhibit the highest standards of ethical behavior and collegiality. Dr. Taleyarkhan failed to do so.”

Be honest and open. “Absolute honesty and transparency are essential ingredients of science. Without full confidence in the integrity of information provided in publications, research seminars, and communication with the general public, the validity of the results cannot be judged by peers or society at large.”

See <http://news.uns.purdue.edu//2008b/080718PurdueReport.pdf>

**COMPLIANCE HOTLINE** – Call 1-877-888-7888 or email [www.tnvinc.com/Reportline/International/](http://www.tnvinc.com/Reportline/International/) to anonymously report suspected violations of laws, regulations, rules, policies, procedures, ethics, or other information you feel uncomfortable reporting to a supervisor or faculty administrator. The operator, who is not a university employee, will report your concerns to the University Compliance Office.

## NEW BOOKS BY FACULTY

January—September 2008

### ADMISSIONS OFFICE

Bridges, Linda McKinnish. *1&2 Thessalonians*. Smyth & Helwys, 2008.

### ANTHROPOLOGY

Simonelli, Jeanne. *Crossing between Worlds: The Navajo of Canyon de Chelly*. Waveland, 2008.

### BABCOCK SCHOOL OF MANAGEMENT

Anderson, James, James Narus, and Das Narayandas. *Business Market Management*, 3<sup>rd</sup> ed. Prentice Hall, 2009.

Harris, Frederick, James McGuigan, and R. Charles Moyer. *Managerial Economics: Applications, Strategy, and Tactics*. South-Western, 2008.

Meredith Jack, and Scott Shafer, eds. *Project Management*. John Wiley, 2008.

### BIOLOGY

Apanius, Victor, Mark Westbrook, and David Anderson. *Reproduction and Immune Homeostasis in a Long-Lived Seabird, The Nazca Booby (Sula Granti)*. American Ornithologists Union, 2008.

### CALLOWAY SCHOOL

Warren, Carl, James Reeve, and Jonathan Duchac. *Accounting*, 23<sup>rd</sup> ed. South-Western, 2008.

———. *Financial Accounting*, 11<sup>th</sup> ed. South-Western, 2009.

### CHEMISTRY

Kondepudi, Dilip. *Introduction to Modern Thermodynamics*. John Wiley, 2008.

### CLASSICAL LANGUAGES

Ulery, Jr., Robert, ed. and trans. *History of Venice*. 3 vols. Harvard UP, 2008.

### COMMUNICATION

Krcmar, Marina. *Living without the Screen: Causes and Consequences of Life without Television*. Routledge, 2008.

### COMPUTER SCIENCE

Burg, Jennifer. *The Science of Digital Media*, 1<sup>st</sup> ed. Prentice Hall, 2008.

Wong, Yue-Ling. *Digital Media Primer*. Prentice Hall, 2008.

### COUNSELING

Gladding, Samuel. *Groups: A Counseling Specialty*. Prentice Hall PTR, 2008.

———. *Counseling: A Comprehensive Profession*. Merrill Prentice-Hall, 2009.

### ECONOMICS

Boko, Sylvain. *New Economic Partnership for African Development and the Future of Economic Policy in Africa*. Africa World, 2008.

Hammond, Claire. *The Benefits of Subsidized Housing Programs: An Intertemporal Approach*. Cambridge UP, 2008.

### EDUCATION

Cunningham, Patricia. *Phonics They Use: Words for Reading and Writing*. Allyn & Bacon, 2009.

———. *What Really Matters in Vocabulary*. Allyn & Bacon, 2009.

———, and Debra R. Smith. *Beyond Retelling: Toward Higher-Level Thinking and Big Ideas*. Allyn & Bacon, 2008.

———, and Dorothy P. Hall. *Making Words: Kindergarten*. Allyn & Bacon, 2009.

———. *Making Words: First Grade*. Allyn & Bacon, 2009.

———. *Making Words: Second Grade*. Allyn & Bacon, 2009.

———. *Making Words: Third Grade*. Allyn & Bacon, 2009.

———. *Making Words Fourth Grade*. Allyn & Bacon, 2009.

———. *Making Words Fifth Grade*. Allyn & Bacon, 2009.

Milner, Joseph, and Lucy Milner. *Bridging English*. Prentice Hall PTR, 2008.

Nielsen, Linda. *Between Fathers and Daughters*. Cumberland House, 2008.

### ENGLISH

Catanoso, Justin. *My Cousin the Saint*. William Morrow, 2008.

King, Owen, and John McNally. *Who Can Save Us Now?* Free Press, 2008.

Wilson, Eric. *Against Happiness*. Farrar, Straus & Giroux, 2008.

### HISTORY

Caron, Simone. *Who Chooses? American Reproductive History since 1830*. Florida UP, 2008.

Escott, Paul. *North Carolinians in the Era of the Civil War and Reconstruction*. North Carolina UP, 2008.

Delfino, Susanna, and Michele Gillespie, eds. *Technology, Innovation, and Southern Industrialization*. Missouri UP, 2008.

### POLITICAL SCIENCE

Kennedy, Charles, et al. *Government and Politics in South Asia*, 6<sup>th</sup> ed. Westview, 2008.

Siavelis, Peter, and Scott Morgenstern. *Pathways to Power: Political Recruitment and Candidate Selection in Latin America*. Pennsylvania State UP, 2008.

### PSYCHOLOGY

Furr, Michael, and Verne Bacharach. *Psychometrics: An Introduction*. Sage, 2008.

### RELIGION

Howe, Leanne, and Ulrike Wiethaus. *Foundations of First Peoples Sovereignty*. Peter Lang, 2008.

Kimball, Charles. *When Religion Becomes Evil*. Harper One, 2008.

### SOCIOLOGY

Hattery, Angela, David Embrick, and Earl Smith, eds. *Globalization and America: Race, Human Rights, and Inequality*. Rowman & Littlefield, 2008.

## FUNDED RESEARCH

### March—September 2008

#### ANTHROPOLOGY

Ellen Miller

- *Fossil mammals from Khasm El-Raqaba, Eastern Desert, Egypt*, National Geographic Society, \$13,575
- *Geology, Paleontology, and Paleobiology of the North African Early Miocene*, National Science Foundation, \$25,360

Kenneth Robinson

- *Greensboro Bicentennial, Caldwell Historic Site*, Greensboro Beautiful, \$21,949
- *Expanded Cultural Resources Study, Piedmont Triad Park*, HDR of the Carolinas, Inc., \$29,992.10
- *Quaker Meadows Historic Site*, Historic Burke Foundation, \$7,621.75
- *McDowell House Restoration Committee*, \$6909.27

Stephen Whittington, *Web Access for Museum of Anthropology Archives*, Institute of Museum & Library Services, \$50,561.17

#### BIOLOGY

Susan Fahrback

- *Young Investigators Symposium, Steroid Workshop*, NSF, \$13,050
- *Muscarinic Regulation of Plasticity in the Brain*, NIH/University of Illinois, \$66,419

Kathleen Kron, *Collaborative Research: Phylogenetic, Biogeographic, and Monographic Studies in the Wintergreen Group*, NSF, \$122,720

Miles Silman, *Collaborative Research: Ecological Legacy of Pre-Columbian Human Impacts on Amazonian Ecology*, NSF, \$128,124

Clifford Zeyl

- *REU: Exploratory Model for Yeast Population Structure and Dynamics*, NSF, \$6,000
- *Mating Behavior in Isolated Populations of the Model Saccharomyces paradoxus*, NSF, \$205,000

#### CHEMISTRY

Rebecca Alexander, *CAREER: Dissecting Domain-Domain Communication in Methionyl-tRNA Synthetase*, NSF, \$123,974

Christa Colyer, *Affinity-based CE Studies to Facilitate Bioprobe Design and Microbe Detection*, NSF, \$160,000

Bradley Jones, *Portable Tungsten-Coil Atomic Emission Detector for Nuclear Forensics*, Homeland Security Department, \$100,056

S. Bruce King

- with Kim-Shapiro, Physics, *Effects of Nitric Oxide in Sickle Cell Blood*, NIH, \$339,144
- *Synthesis of Hydroxamic Acids through NOH Insertion of Ketones*, Petroleum Research Fund, \$50,000
- *Profiling of Redox-Sensitive Signaling Proteins*, NIH/WFU Health Sciences, \$5,331.64

Suzanne Tobey, *Enantioselective Synthesis of Alpha-Amino Phosphates*, Herman Frasch Foundation, \$50,000

#### COMMUNICATION

Allan Loudon, *Ben Franklin Trans-Atlantic Institute*, State Department, \$58,750

#### COMPUTER SCIENCE

Jennifer Burg, *Linking Science, Art, and Practice through the Science of Digital Media*, NSF, \$30,000

Jacquelyn Fetrow (**PHYSICS**)

- with John, Computer Science, and Allen, Mathematics, *Algebraic and Statistical Models of Redox Signaling*, NIH, \$246,758
- *WFU Older Americans Independence Center, Molecular Science Resource Center*, NIH/WFUHS, \$15,295

Errin Fulp, *Securing the Next Generation of Information Infrastructure*, National Foundation for Cancer Research, \$35,250

V. Paul Pauca, with Plemmons, Computer Science and Mathematics, *Combining Imaging and Nonimaging Observations for Improved Space Object Identification*, Air Force Office of Scientific Research/University of New Mexico, \$29,992

Robert Plemmons (**MATHEMATICS**), *Integrated Optical-Digital Imaging Camera System: Phase III*, Defense Microelectronics Activity/Catholic University of America, \$139,568

Stan Thomas, *Sun SPOTS from the Start*, Sun Microsystems, Inc.

#### ECONOMICS

Jac Heckelman, *Delegate Voting at the Constitutional Convention*, NSF, \$19,787

Michael Lawlor, *Look AHEAD*, NIH, \$22,150

#### EDUCATION

Joseph Milner, *Master Teacher Fellows Program*, UNC, \$37,603

#### ENTREPRENEURSHIP AND LIBERAL ARTS

Betsy Gatewood, *Entrepreneurship and Liberal Arts: Building Campus Culture*, Ewing Marion Kauffman Foundation, \$230,513

#### HEALTH & EXERCISE SCIENCE

Devon Dobrosielski, *Evaluating Variations in Genes in NO Pathway and Relation to Ischemic Stroke*, NIH/WFUHS, \$4,759

Jeffrey Katula, *Translating Research into Practice (HELP PD)*, NIH/WFUHS, \$62,481

Anthony Marsh, *Bridge Funds: Co-Core Leader for Pepper Center Clinical Research*, NIH/WFUHS, \$10,627; \$9,881

Stephen Messier, *Intensive Dietary Restriction with Exercise in Arthritis*, NIH, \$574,316

Patricia Nixon, *Antenatal Steroids and Blood Pressure in Childhood*, NIH/WFUHS, \$50,767

W. Jack Rejeski

- *Bridge Funds: Co-Core Leader for Clinical Research in Pepper Center*, NIH/WFUHS, \$21,075; \$19,598
- *Cooperative Lifestyle Intervention Program*, NIH, \$597,265
- with Jeffrey Katula, H&ES, *SHARP-P*, NIH/WFUHS, \$110,336

- with Gary Miller and Paul Ribisl, H&ES, *Look Ahead*, NIH/WFUHS, \$133,359

#### LIBRARY

Susan Smith, *Digital Forsyth*, IMLS/North Carolina, \$90,117

#### MATHEMATICS

Jennifer Erway, *Second-order Methods for Large-scale Optimization in Compressed Sensing*, NSF, \$46,987

Jason Parsley, *Conference on Applications of Geometry to Topology and Physics, November 2008*, NSF, \$19,900

#### PHYSICS

David Carroll

- *Conference for Nanomedicine*, North Carolina Biotechnology Center (NCBC), \$5,000
- *PureLux*, PureLux, Inc., \$100,000
- *FiberCell*, FiberCell, Inc., \$100,000
- *Nanotubes in Tumor Imaging and Therapy*, NIH/WFUHS, \$28,496
- *Nanocomposites for Energy Utilization*, Thai Government, \$2,900
- *Targeted CNx Nanowire Drug Complexes for Enhanced Chemotherapeutic Efficacy*, Congressionally Directed Medical Research Program, \$100,200

Martin Guthold, *Mechanical Properties of Native and Variant Fibrin Fibers*, American Heart Association, \$20,000

Daniel Kim-Shapiro, with S. Bruce King, Chemistry, *Effects of Nitric Oxide in Sickle Cell Blood*, NIH, \$339,144

Jed Macosko, *Drug Discovery at the Nanoscopic Level: Lab-On-Bead™ Processing of Encoded Chemical Libraries*, NCBC, \$75,000

Freddie Salsbury, with Ulrich Bierbach and S. Bruce King, Chemistry, *Molecules to Medicines*, Dreyfus Foundation, \$7,500

Richard Williams, *fs/ps Excitation-Density and Time-Dependent Studies of Scintillation Process*, University of California, \$5,000

#### POLITICAL SCIENCE

Sarah Lischer, *Going Home to Fight? Explaining Refugee Return and Violence*, International Peace Research Institute, Oslo, \$11,574

#### PSYCHOLOGY

R. Michael Furr, *Impulsivity and Information Processing in Adolescent Cannabis Abuse*, NIH, \$15,000

Janine Jennings, with Dale Dagenbach, Psychology, *SHARP-P*, NIH/WFUHS, \$81,546

Eric R. Stone, *Strategies for Communicating Low-probability Disease Risk to Health Consumers*, NIH, \$9,055

LORI MESSER  
Director  
336/758-4910  
[messerlj@wfu.edu](mailto:messerlj@wfu.edu)

STEPHEN WILLIAMS  
Assistant Director  
336/758-4909  
[williasl@wfu.edu](mailto:williasl@wfu.edu)

JULIE EDELSON  
Researcher, Editor  
336/727-0464  
[edelsojb@wfu.edu](mailto:edelsojb@wfu.edu)

PAM MOSER  
Associate Director for Faculty Research Compliance and Support  
336/758-5195  
[moserpc@wfu.edu](mailto:moserpc@wfu.edu)

MEAGAN MILLER  
Student Assistant

JAMEAL ADDISON  
Student Assistant

CHRIS LANGLEY  
Student Assistant

**Research**  
News



WAKE FOREST  
UNIVERSITY

Office of Research and Sponsored Programs