

THE SOURCE

OFFICE OF SPONSORED PROGRAMS

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Office of
Sponsored Programs

Dr. Yolanda Carr
Director

Diane Fitzsimmons
Grants Specialist

ADM 201
osp@swosu.edu
swosu.edu/osp
580-774-7012

22nd Research and Scholarly Fair scheduled for April 14 at SWOSU

The 22nd Annual Research and Scholarly Activity Fair is scheduled for Tuesday, April 14, 2015, at Southwestern Oklahoma State University. The fair will be from noon to 3 p.m. at SWOSU's Memorial Student Center Ballroom.

An application is required to present at the fair and is accessible on the SWOSU web site at <http://www.swosu.edu/administration/osp/fair/application.aspx>. The application process is through on-line submission only.

The application deadline is **Friday, March 6, 2015**. A participant must present in poster, podium, or fine arts format.

More information or application assistance is available by contacting Dr. Jason Johnson, Chair, University Research and Scholarly Activity Committee (URSAC) via e-mail jason.johnson@swosu.edu or 580-774-3110.

Oklahoma Research Day abstract, registration deadlines approaching

Oklahoma Research Day, a premier academic research event in the state, is scheduled for March 13, 2015, at North-eastern State University in Tahlequah.

A call for papers has been issued, and the abstract submission deadline is at **5 p.m. January 28, 2015**.

Abstract guidelines are available at the Oklahoma Research Day web site, <http://www.oklahomaresearchday.com>.

Registration for the event is required

for both presenters and guests. The registration deadline is 5 p.m. February 12, 2015, and is also available at the Oklahoma Research Day web site.

Coordinated by Oklahoma's regional universities, Oklahoma Research Day includes contributions from all of Oklahoma's institutions of higher education. The 2014 event drew more than 600 presentations by more than 1,100 college students and faculty.

Proposal Development deadline is Jan. 26

Applications for the 2015 Proposal Development Awards are available on the web site of the Office of Sponsored Programs at <http://www.swosu.edu/administration/osp/research-forms.aspx>. The submission deadline is **January 26, 2015**.

SWOSU will provide as much as \$12,000 for PDA during 2015 to enhance scholarly activity. The award, which is limited to \$6,000 each, gives the recipient the financial resources to draft proposals for external funding. As a condition of the award, a proposal in a form ready for submission to an external agency must be submitted to the Office of Sponsored Programs by **January 23, 2016**.

More information is available from the Office of Sponsored Programs at 580-774-7012 or osp@swosu.edu.

GRANTS, CONTRACTS, AND PROPOSALS

AWARDS

The following grants and contracts were **awarded** to Southwestern Oklahoma State University faculty since the last report:



Randy Barnett. Psychology. *Strengthening Custody and Transition Services Pilot Project.* The Oklahoma Commission of Children and Youth. \$45,000.

Brian Campbell and David Esjornson. Chemistry and Physics. *Summer Science and Mathematics Academy (SSMA).* Oklahoma State Regents for Higher Education, \$33,000.



Doug Misak. Center for Economic and Business Development. *Southwest Oklahoma Impact Coalition.* \$44,668.

PROPOSALS SUBMITTED

The following proposals were **submitted** by Southwestern Oklahoma State University faculty since the last report:



Madeline Baugher. Accounting, Computer Science, and Entrepreneurship. *NASA EPSCoR -- FY15 Research Implementation Grant.* \$48,821.

Andrea Holgado. Biological Sciences. (With Kenneth Hensley, University of Toledo Medical Center.) *IOSRUI Examining molecular layers integrating autophagy and axonal elongation (pre-proposal).* National Science Foundation.



Ken Rose. Dean, College of Graduate and Professional Studies. *Cedar Canyon Mini-Grant.* Walmart Community Grant. \$1,900.

Faculty interested in pursuing grant opportunities can contact the Office of Sponsored Programs about conducting a funding opportunity search. The process can be started by completing the Research/Scholarly Activity Interest Profile at the Office of Sponsored Programs web site at www.swosu.edu/administration/osp/osp_interest_survey.aspx

SCHOLARLY AND ACADEMIC ACTIVITY

The Office of Sponsored Programs has been notified of the following Scholarly and Academic Activities since the last newsletter:



Guy Biyogmam, Mathematics, wrote a journal article titled, “Low Dimensional Homology Groups of the Orthosymplectic Lie Superalgebra $osp(1, 2)$,” which was published in the *European Journal of Pure and Applied Mathematics*. He also

wrote a review article on “Some remarks on semisim-

ple Leibniz algebras” for *Mathematical Reviews/MathSciNet*, which is published by the American Mathematical Society. He also presented a paper titled, “A Study of gb-Triple Systems” at the Georgia State and College University Math Seminar in Milledgeville, GA.

Sylvia Esjornson, Chemistry, presented two papers at the American Chemical Society Biennial Conference on Chemical Education in Allendale, MI.

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SCHOLARLY AND ACADEMIC ACTIVITY

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The papers were “Using the study of argument to learn about industrial chemistry as students find claims and evidence in C&EN cover stories while Hillocks’ Teaching of Argument Writing advocates the supporting of generalizations with concrete evidence” and “Using the study of argument to learn about environmental regulation through analysis of scientific evidence within national environmental policy act records of decision.”



Fred Gates, History, presented a book review of “A Gathering of Old Men” by Earnest J. Gaines at the Weatherford Public Library Book Chat.



Andrea Holgado, Chair, Biological Sciences, co-authored an article titled, “Analysis of differential gene expression profiles in *C. elegans* knockouts for the v-SNARE master protein 1” for the *Journal of Neuroscience Research* and an article titled, “Generating *Caenorhabditis elegans* UNC-33 antigens to be used for the Synthesis of Polyclonal Antibodies” for the *Journal of Undergraduate Research*, a peer-reviewed journal published at SWOSU. She also has been named Science, Technology, Engineering, and Mathematics Editor of *Journal of Undergraduate Research* and recently made these presentations:



- Posters on “*The Effect of LKE on Autophagy in N2 C. elegans*,” “*Generating Caenorhabditis elegans UNC-33 Antigens to be Used for the Synthesis of Polyclonal Antibodies*,” and “*Initial Steps towards Understanding the Role of Autophagy in Neurons*,” presented with student researchers at Oklahoma Research Day, Edmond; Beta Beta Beta Southcentral Regional Convention, Lake Texoma; and 21st SWOSU Research Scholarly Activity Fair. The second poster won

third place for Outstanding Poster presentation at the Beta Beta Beta event.

- Poster on “*Using Optogenetics to Study Exocytosis in C. elegans Motor Neurons*,” presented with student researchers at Oklahoma Research Day and 21st SWOSU Research Scholarly Activity Fair.
- Oral presentation presented with student researchers on “*Analysis of Differential Gene Expression Profiles in C. elegans Knockouts for the v-SNARE Master Protein*” at Beta Beta Beta Southcentral Regional Convention. The presentation won first place for Outstanding Oral Presentation (Graduate Student).
- Oral presentation with student researchers on “*Correlating VSM-1 Expression with Muscle Physiology*,” at Beta Beta Beta Southcentral Regional Convention and Beta Beta Beta National Convention, Erie, PA. The presentation won the Brooks Award/first place for Outstanding Oral Presentation at the regional event.
- Poster on “*The Characterization of bec-1, an Autophagy Gene, in Neuronal Synapse Structure and Function*,” with student researcher at the University of Oklahoma Health Sciences Center Summer Undergraduate Research Poster Presentations.
- Oral presentation on “*Regulating membrane trafficking in worms*” at the 2014 Society for Advancement of Hispanics/Chicanos and Native Americans in Science, Los Angeles, CA.
- Oral presentation on “*From microscopic worms to understanding the brain*,” at a seminar series at Georgetown College, Georgetown, KY. The Hughes Medical Institute funded the series.



Dennis Thompson, Dean of the College of Pharmacy, served as a reviewer of an article titled, “Adverse drug reactions of anti-hypertensives in medicine department of a tertiary care hospital: a twelve-month observation” in the *British Journal of Pharmaceutical Research*.

SPOTLIGHTed: Funding Opportunities for SWOSU

DIGITAL HUMANITIES IMPLEMENTATION

Deadline Date(s): February 18, 2015

Funding Agency: National Endowment for the Humanities

Program Title: Digital Humanities Implementation

Web site: <http://www.neh.gov/files/grants/digital-humanities-implementation-feb-2015.pdf>

Synopsis: This program is designed to fund the implementation of innovative digital-humanities projects that have successfully completed a start-up phase and demonstrated their value to the field. Such projects might enhance our understanding of central problems in the humanities, raise new questions in the humanities, or develop new digital applications and approaches for use in the humanities. The program can support innovative digital-humanities projects that address multiple audiences, including scholars, teachers, librarians, and the public. Applications from recipients of NEH's Digital Humanities Start-Up Grants are welcome.

Funding Range: \$100,000 - \$325,000 (No Match or Cost Sharing)

YOUNG INVESTIGATORS' GRANTS AND PROGRAM GRANTS

Deadline Date(s): March 19, 2015

Funding Agency: Human Frontier Science Program - HFSP Research Grant Program

Program Title: Young Investigators' Grants and Program Grants

Web site: <http://www.hfsp.org/funding/research-grants/information-and-guidelines>

Synopsis: The Human Frontier Science Program (HFSP) is a niche program that supports innovative basic research into fundamental biological problems with emphasis placed on novel and interdisciplinary approaches that involve scientific exchanges across national and disciplinary boundaries. The participation of scientists from disciplines outside the traditional life sciences such as biophysics, chemistry, computational biology, computer science, engineering, mathematics, nanoscience or physics has made biological research increasingly quantitative and will continue to do so. Such collaborations have opened up new approaches for understanding the complex structures and regulatory networks that characterize living organisms, their evolution, and interactions. To stimulate novel, daring ideas and innovative approaches, preliminary results are not required in research grant applications. The HFSP places special emphasis on encouraging scientists early in their careers – this is expressed both in the establishment of a special Young Investigators' Grant and in encouraging scientists early in their careers to participate in the Program Grants. Applicants are expected to develop new lines of research through the collaboration. Applicants must submit a letter of intent to apply for a research grant via the HFSP web site with a deadline at the end of March, and, after review, selected teams will be invited to submit a full application.

Funding Range: Up to \$450,000 per grant each year

SPOTLIGHTed: Funding Opportunities for SWOSU

RESEARCH INITIATION GRANTS IN ENGINEERING EDUCATION

Deadline Date(s): March 26, 2015

Funding Agency: National Science Foundation

Program Title: Research Initiation Grants in Engineering Education (RIGEE)

Web site: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503603

Synopsis: Engineering faculty possess both deep technical expertise in their engineering discipline and the primary responsibility for educating future engineers. As such, engineering faculty are in a unique position to help address critical challenges in engineering education. The Research Initiation Grants in Engineering Education (RIGEE) program enables engineering faculty who are renowned for teaching, mentoring, or leading educational reform efforts to initiate collaborations with colleagues in the learning and cognitive sciences to address difficult, boundary-spanning problems in how we educate engineers.

Funding Range: Up to \$150,000

GRANTS FOR RESEARCH AND EVALUATION OF CHILDREN EXPOSED TO VIOLENCE

Deadline Date(s): April 8, 2015

Funding Agency: U. S. Department of Justice

Program Title: Research and Evaluation of Children Exposed to Violence

Web site: <https://www.ncjrs.gov/pdffiles1/nij/sl001143.pdf>

Synopsis: NIJ is seeking multidisciplinary research and evaluation proposals related to childhood exposure to violence. Such violence may include children who are direct victims and/or bystanders or observers of various forms of violence in the home, school, or community, including but not limited to peer victimization, bullying, harassment, child maltreatment, domestic violence, and community violence. Other types of violence to which children are exposed may be addressed, with the exception of media violence (e.g., television and movie violence, music advocating aggression, and violent video games).

Funding Range: There will be three (3) awards of \$350,000 each

EARLY CAREER GRANTS FOR PSYCHOLOGISTS

Deadline Date(s): May 15, 2015

Funding Agency: American Psychological Foundation

Program Title: John and Polly Sparks Early Career Grant for Psychologists Investigating Serious Emotional Disturbance (SED)

Web site: <http://www.apa.org/apf/funding/sparks-early-career.aspx>

Synopsis: The John and Polly Sparks Early Career Grant supports early career psychologists conducting research in the area of early intervention and treatment for serious emotional disturbance in children. The John and Polly Sparks Foundation partnered with APF to empower early career psychologists to produce scientifically based research and programs that could provide models for broad-based applications across the country.

Funding Range: APF will be awarding two Sparks grants in 2015, one for \$17,000 and one for \$10,000.

Research/Outreach Opportunities for SWOSU Students

PINEMAP UNDERGRADUATE FELLOWSHIP

Submission Deadline: February 13, 2015

Student Majors: Natural Resource or Biology Education

Synopsis: The Pine Integrated Network: Education, Mitigation and Adaptation Project (PINEMAP) Undergraduate Fellowship Program provides undergraduate fellows from across the United States with a research experience under a graduate student, post-doc, or research staff mentors and prepares them to successfully develop secondary school sciences or social students lessons based on summer research. This program partners fellows with graduate students based on interest areas.

For more information or to apply, visit <http://www.pinemap.org/education/undergraduate>

UNDERGRADUATE RESEARCH IN COLLABORATIVE DATA VISUALIZATION

Deadline Date: Application materials should be submitted for full consideration by March 31, 2015.

Program Dates: June 1, 2015 - July 24, 2015

Synopsis: Clemson University is accepting application for participation in the REU Site: Research Experience for Undergraduates in Collaborative Data Visualization Applications for summer 2015.

Eligibility Criteria: All undergraduate students, enrolled in an undergraduate university/college with an interest in visualization; visualization plays a key role in all areas of research. All academic majors are encouraged to apply.

For more information, contact Vetrica Byrd at vlbyrd@clemson.edu and <http://citi.clemson.edu/viz/reu>

INTEGRATIVE COMPUTATIONAL EDUCATION AND RESEARCH

Deadline Date: The deadline for priority consideration is February 16, 2015. Applications will be accepted until all positions are filled.

Program Dates: June 1, 2015 - August 1, 2015

Synopsis: The Summer 2015 Integrative Computational Education and Research Traineeship is a research experience for undergraduates. Twelve (12) undergraduates majoring in science and engineering will be immersed in training at the University of Texas at Austin to be the next generation of “game changers.” Participants will receive a stipend for work, travel stipend, and housing at the University of Texas at Austin. Additionally, travel grants to present research at the annual XSEDE conference will be available to selected participants.

For more information, contact Rosalia Gomez at rosie@tacc.utexas.edu, 512-471-6785 or <https://www.tacc.utexas.edu/icert-reu>

BLUE WATERS STUDENT INTERNSHIP PROGRAM

Application Deadline: March 20, 2015

Synopsis: The program is designed to motivate and train the next generation of supercomputing researchers. Twenty (20) undergraduate students will be selected to participate in a year-long science of engineering internship, which can be conducted with a faculty mentor at the student’s home campus or at another campus. Each intern will receive a stipend totaling \$5,000, a two-week intensive computing workshop at the National Center for Supercomputing applications at the University of Illinois at Urbana-Champaign during June 2015, and travel to The Blue Waters Symposium 2016.

For more information, visit <https://bluewaters.ncsa.illinois.edu/internships> or <http://shodor.org/petascale/participation/internships/>

Student Research/Outreach Opportunities, continued

SOCIAL SCIENCE DIVISION STUDENT TRAVEL AWARDS

Sponsor: Council for Undergraduate Research (CUR)

Deadline Date: Applications for a travel grant to a fall 2014 or spring 2015 meeting are now being accepted. Award decisions will be made on a first come, first served basis.

Eligibility Criteria: Undergraduate students at any level can apply but preference will be given to:

- juniors and seniors or students attending 2-year community colleges.
- Student's mentor must be a CUR member or the student's home institution must be a CUR institutional member.
- Student's home institution must match the \$200 CUR travel grant

Synopsis: The Social Science Division is offering a limited number of travel grants, up to \$200 each, for undergraduate students presenting the results of research that they have conducted at a regional or national, discipline-specific meeting during the academic year 2014-2015. Award recipients are required to acknowledge CUR for support of their travel in their talk or poster. After the meeting, a brief report about the experience is expected. Minority students are encouraged to apply.

For additional information, visit <http://multibriefs.com/briefs/cur/socialsciencedivision.pdf>

PHYSICS AND ASTRONOMY REU PROGRAM

Managed by Councilors in CUR's Physics and Astronomy Division

Deadline: February 20, 2015

Program Dates: June 1, 2015 - August 7, 2015

Synopsis: This REU program focuses on providing research experiences to undergraduates who have either not had a research experience or are at an institution where research opportunities are not available for undergraduates. Students from community colleges are encouraged to apply. Women and students from traditionally under-represented groups are also encouraged to apply. Students receive \$500/week for 10 weeks, a travel allowance, and a food allowance. Eligibility includes community college and university students.

For more information, visit <http://www.cwu.edu/physics/reuprogram>

SUSTAINABLE BIOBASED PRODUCTS AND ENERGY DEVELOPMENT

REU Site: Interdisciplinary Approach to Sustainable Biobased Products and Energy Development

Application Deadline: March 1, 2015

Synopsis: The new NSF REU program titled, "Interdisciplinary Approach to Sustainable Biobased Products and Energy Development" is hosted under the auspices of the Biobased Products and Energy Center at Oklahoma State University. Participating students will:

- Learn about the scientific processes and procedures required to conduct bio-products and bio-energy research
- Understand the importance of an interdisciplinary environment in developing bio-products and bio-energy production systems
- Explore the role of bio-product and bio-energy research in a global society
- Develop professional skills that are necessary for a successful career
- Discover graduate studies and careers in Science, Technology, Engineering and Mathematics (STEM) related disciplines, specifically those related to bio-based products and energy

For more information, visit <http://www.reu.bioenergycenter.okstate.edu/> or by emailing reu.biopec@okstate.edu

UPCOMING EVENTS

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all Instructors!**
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teaching the
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new, interesting,
fun, or important?**
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SWOSU JOURNAL OF UNDERGRADUATE RESEARCH

The SWOSU Journal of Undergraduate Research (SWOSU JUR) will celebrate the publication of Volume 1 at the first Research Excellence Club meeting of the semester on **Wednesday, January 28, at 5:30 p.m. in SCI 212**. Information on making submissions to the journal's Volume 2 will also be provided at the meeting, which is open to anyone interested in the journal or in research. The SWOSU JUR is an interdisciplinary, peer-reviewed journal showcasing scholarly work composed by SWOSU students while also promoting intellectual curiosity and exploration across campus. Submissions from all academic disciplines are welcomed. Eligibility is restricted to undergraduate and graduate students at SWOSU, and manuscripts must reflect work conducted under the direction of a SWOSU faculty mentor. Submission guidelines are also available at <http://www.swosu.edu/academics/jur/submission-guidelines.aspx>. Volume 1 of the journal is at <http://www.swosu.edu/academics/jur/volumes.aspx>

OKLAHOMA STATE UNIVERSITY RESEARCH WEEK

During the week of **February 16-20, 2015**, Oklahoma State University will host OSU Research Week. Students from any college are welcome to participate and attend. National Public Radio science correspondent Ira Flatow will be the keynote speaker on February 18. Flatow, an award-winning journalist and host of NPR's "Science Friday," will talk about "Unusual Patents: Where do Ideas Come From?" More information about the 2015 Research Week's schedule is at <http://researchweek.okstate.edu/>

RESEARCH DAY AT THE CAPITOL

Research Day at the Capitol will be **March 31, 2015**, in the 4th floor rotunda area of the Oklahoma State Capitol building. Representing SWOSU will be Matt Abbott, a biological sciences major from Anadarko. The event is open to the public. More information is available at <http://www.okepscor.org/calendar/2015-research-day-capitol>

NATIONAL CONFERENCE ON UNDERGRADUATE RESEARCH

The Council on Undergraduate Research will hold its annual national conference **April 16-18, 2015**, at Eastern Washington University, Cheney, WA. Conference presentations have already been chosen, but registration for attendance will be open until March 12, 2015. The conference includes a graduate and professional school fair and a career forum. More information is available at http://www.cur.org/ncur_2015/

THE WOMEN OF COLOR STEM CONFERENCE

The 2015 Women of Color STEM (Science, Technology, Engineering, and Mathematics) Conference will take place **October 15-17, 2015**, at the Detroit Marriott at the Renaissance Center in Detroit, MI. More information is available at http://intouch.ccgmag.com/page/woc_conference