

# Grant Scope

*Sam Houston State University  
Office of Research and Sponsored Programs*

*A Member of The Texas State University System*



## A Message from the Associate Vice President



A large function of the Office of Research and Sponsored Programs is dealing with forms of compliance. Conducting research at Sam Houston State University (SHSU) requires that there is oversight to insure that research is managed ethically and within the law, and this

oversight comes with a considerable amount of reporting and documentation. This situation sometimes leads to confusion as to what needs to be in place and what needs to be reported to conduct research at our institution. Hopefully, this note will clarify some of this situation and if not, our staff is always available to help. There are many compliance issues for research dealing with human or animal subjects. At SHSU we have two oversight committees that deal with these issues, and ORSP provides support for those committees. For researchers doing projects that involve animal subjects, the oversight committee is the Institutional Animal Care and Use Committee (IACUC). This committee consists of four faculty members and two community representatives, one of which is required to be a veterinarian. The University President appoints these members. All research concerning vertebrate animals must be pre-approved by this committee, and the committee then carries out inspections to insure that the approved protocols are being used and that the animals are always properly cared for. Researchers working with human subjects, including everything from direct contact with human subjects to using data obtained about human subjects, must

*Nov/Dec 2010*

get approval from the Protection of Human Subjects Committee. This committee consists of nine regular members and nine alternate members, all from the SHSU faculty, along with an inmate advocate for projects working with prisoners. Again, the President makes all appointments and designates the chair. One regular member and one alternate member is nominated by each academic dean. Also, one regular member and one alternate member from the community is nominated by the Provost and Vice President for Academic Affairs from recommendations made by the committee chair. In addition, one Faculty/Administrator and one alternate member is nominated by the Provost and Vice President for Academic Affairs. Moreover, one Student Services representative and one alternate member is nominated by the Vice President for Student Services, and one Inmate Advocate and one alternate member is nominated by the Provost and Vice President for Academic Affairs. Regular members and alternate members serve two-year terms.

In addition to approval by these committees, researchers working with these protected groups must also complete ethics training. The rule for this resulted from a federal mandate that all researchers receiving federal funds must have approved ethics training, and both SHSU committees extended this requirement at SHSU to all investigators and students working with animals and humans. The approved program for this training is the Collaborative Institutional Training Initiative (CITI), which was developed by the University of Miami and is used by many research institutions. **This is an online training that must be successfully completed before research can be approved.**

Finally, there are many compliance issues with how external awards are reported upon and how expenditures and commitments of the awards are tracked. The Office of Research Administration assigns staff to work with faculty who have grants to insure this part of the process is always in compliance. I hope that this information helps with any confusion you might have, but if not, our offices are always here to assist you.

*Jerry L. Cook*

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# Spotlight on Research



## **Dr. Ilona Petrikovics**

has been an Associate Professor in the Chemistry department at Sam Houston State University (SHSU) since 2007. She is a toxicologist with expertise in the subfields of: enzyme mechanism in drug antagonism; enzyme and drug delivery systems; and chemical warfare agent antagonism. She says much of

her responsibility (approximately 80%) is focused on mentoring and research activities outside the classroom.

Dr. Petrikovics moved to the United States from Hungary 20 years ago. She received her M.S. in General Chemistry and her Ph.D. in Organic Chemistry/Biochemistry from L. Kossuth University of Arts and Sciences in Hungary. She received a second Ph.D. in Medicinal Biology from the University Medical School in Hungary. She began her toxicology-related research at Texas A&M University (TAMU) in 1992. Then in 2002, she was offered an opportunity to work as a National Research Council fellow for the Army Medical Research Institute of Chemical Defense (ICD) in Maryland. She worked in the clinical-pharmacology lab at Auburn University, College of Veterinary Medicine from 2003 to 2004. Prior to joining SHSU, she worked as a research fellow at TAMU from 2004 to 2006.

Dr. Petrikovics' expertise benefits SHSU in many ways because her research projects, including those that are collaborations with colleagues in the Chemistry and Forensic Science departments are supported by federal grants, thus bringing research recognition to our university. She is globally recognized for her work in Organophosphorous (OP) nerve agents and Cyanide and

works with chemical researchers at Texas A&M and the U.S. Army Medical Research ICD to expand knowledge in this area. Dr. Petrikovics invites undergraduate and graduate students into her research lab that is staffed by two research faculty. She said, "I do believe, that with my grants, I am extending and enhancing the research tools to give more students the opportunity to experience 'live' research (including deadlines and other requirements associated with the stewardship of large grants) in my lab and can practice the theories they have learned in class." The total number of students participating in her lab this year was approximately 20, which is almost the size of one chemistry class.

Dr. Petrikovics introduces her students to top researchers in their field and offers them the opportunity to present their research at national and international conventions. She encourages her students to attain a wider understanding of professional life outside the university. According to her student, Katelyn Stafford, "I would have never had the chance to go to an international meeting as an undergraduate if not for Dr. Petrikovics." Another student, Jessica Nasr was recommended by Dr. Petrikovics and was awarded the Society of Toxicology Undergraduate Award.

Thanks to her continuous grant support, Dr. Petrikovics has been able to offer her students these valuable benefits. She is extremely active in her research area involving OP nerve agents. The grant associated with this research is titled Catalytic Bio-Scavengers with Broad Specificity against OP Nerve Agents. The grant provided \$400,861 of research support to Dr. Petrikovics team, over a period of four years. Another grant, which ended its activity on August 31, 2010, provided the team with \$393,907 for studies on cyanide antidotes. It has been approved for continuation with external collaborators in the amount of \$218,682. This will facilitate continual research in investigating sulfur donors for Cyanide antagonism. Through this grant, she is investigating better ways to deliver life-saving antidotes to those exposed to cyanide.



*Dr. David Thompson, Co-PI and Dr. Brian Logue, a collaborator from South Dakota State University*



## Office of Research and Sponsored Programs

This research is part of a larger effort to find improved ways to protect and save the lives of military personnel and civilians. After attending a top-level Cyanide Expert Meeting in San Francisco last summer, Dr. Petrikovics was invited to participate in a new grant—the National Institutes of Health (NIH) Center grant. If awarded, this grant would represent the university at the highest level of this research in the country enabling Dr. Petrikovics and her Co-PI, Dr. David Thompson the opportunity to work with some major universities, including Harvard, UCSD, Minnesota as well as the Army Medical Research ICD.



*Sarah Martin, Dr. Petrikovics' student researcher 2008-2010 and Dr. Galina Kuzmicheva, research faculty member employed in Dr. Petrikovics' lab*

The grant monies have allowed for two research faculty, Dr. Galina Kuzmicheva and Dr. Prashanth Jayanna, to conduct research in the Petrikovics lab. Dr. Kuzmicheva is from Russia but has been in the U.S. for more than 10 years. Dr. Prashanth Jayanna is a veterinarian from India but has been in the U.S. for 6 years. Both met Dr. Petrikovics at Auburn University, College of Veterinary Medicine in Alabama.

Dr. Kuzmicheva is involved in both research projects concerning Organophosphorous nerve agents and Cyanide. For the last two years, she also has assisted Dr. Petrikovics in training students and in lab management work at SHSU. Dr. Jayanna's responsibilities include the development of novel delivery formulations of chemical warfare agent antagonists including targeted liposomes for intracellular delivery. He also facilitates the development of undergraduate and graduate research in the laboratory.



*Dr. Prashanth Jayanna, research faculty in Dr. Petrikovics' lab*

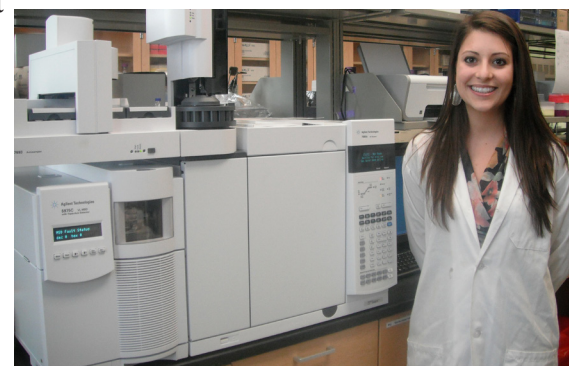
Dr. Petrikovics is well respected in her field as a researcher and as a mentor. Sarah Martin, employed by Dr. Petrikovics from 2008 - 2010, said that her work with Dr. Petrikovics and Dr. Yu last summer facilitated her transition from the Chemistry department to the Forensic Science program “I think I have been successful in the lab and in graduate school thus far because of the opportunities and the experience I have had in Dr. Petrikovics' lab” she said.

Katelyn Stafford began working in the Petrikovics lab two summers ago through the chemistry summer research program. She said, “through my work in Dr. Petrikovics' lab I was able to get an internship with a government drug chemistry analysis laboratory, and now I have been offered the opportunity of working for them full time in the future.”



*Katelyn Stafford, one of Dr. Petrikovics' current student researchers*

Jessica Nasr is the most recent addition to the Petrikovics lab—she began January 2010. She said, “It is clear—that the practical experience Dr. Petrikovics has given me—has provided me with a meaningful advantage over other students that have not had a comparable work experience.”



*Jessica Nasr, one of Dr. Petrikovic's current student researchers*

Dr. Petrikovics has a myriad of publications in scientific journals, and her students are included for their contributions. This is a rare opportunity especially at the undergraduate level. Presently Dr. Petrikovics is working on several pending publications: one with Dr. Manage, a statistician in the math department and two with Dr. Yu in the Forensic Science department.

**Visit us online for funding opportunities at**  
**[http://www.shsu.edu/~rgs\\_www/FundingOpportunities.html](http://www.shsu.edu/~rgs_www/FundingOpportunities.html)**



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**Student Assistants**

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**Funding Opportunities**



**Program: Political Science**  
**PD 98-1371**  
**Full Proposal Target Deadline: 1/15/2011**

**Program: Sociology**  
**PD 98-1331**  
**Full Proposal Target Deadlines: 1/15/2011 & 8/15/2011**

**Program: Economics**  
**PD 98-1320**  
**Full Proposal Target Deadline: January 18, 2011**

**Program: Research in Disabilities Education**  
**PD 09-508**  
**Full Proposal Target Deadline: February 16, 2011**



**Grant: Organic Agriculture Research and Extension Initiative**  
**Agency: National Food and Agriculture**  
**Proposal Deadline: 2/10/2011**

**Web: [http://www.nifa.usda.gov/funding/rfas/pdfs/11\\_orei.pdf](http://www.nifa.usda.gov/funding/rfas/pdfs/11_orei.pdf)**

**If you are interested in pursuing this or other funding opportunities, please contact ORSP for additional assistance. Thank you.**

**Acknowledgements:**

I would like to thank the following individuals for their contributions to this newsletter: Dr. Jerry Cook, Dr. Ilona Petrikovics, Dr. David Thompson, Dr. Galina Kuzmicheva, Dr. Prashanth Jayanna, Sarah Martin, Jessica Nasr, Katelyn Stafford, Delia Gallinaro, Eva Strickler, Post Award, and Brian Blalock.



National Science Foundation  
WHERE DISCOVERIES BEGIN

**REMINDER:** Beginning January 2011, the **National Science Foundation** will require all grant submissions to include a **Data Management Plan**. There are FAQs within the NSF website to answer any questions about the new requirement. A link is also available on the ORSP website under the NSF News & Announcements tab. If you have any further questions about the new requirement, please contact us at 294-3621. Thank you.

**Spring 2011 Grant Workshops**

**Workshop: Grant Budget & Intellectual Property**  
**Date: 1/20/2011**  
**Time: 3:00 - 5:00**  
**Location: PACE Center Conference Room C002**

**Workshop: NIH**  
**Date: 2/23/2011**  
**Time: 3:00 - 5:00**  
**Location: PACE Center Conference Room C002**

**Workshop: Foundations**  
**Date: 3/29/2011**  
**Time: 3:00 - 5:00**  
**Location: PACE Center Conference Room C002**