NSF grant supports Marlan Scully's research on photonic quantum heat engines

Dr. Marlan Scully, Baylor University Distinguished Academician of Science and Engineering, was recently awarded a grant from the National Science Foundation to support his research on application of quantum coherence to the operation of photonic quantum heat engines.

Quantum heat engines, including solar cells, show promise as potential sources of clean, renewable energy. Scully's research proposes to use quantum coherence to improve the efficiency of these photocells, potentially making them more effective sources of energy.

The grant will support collaboration between Scully and colleagues at Baylor, Texas A&M, Harvard and Princeton universities, aimed at further exploring the possibilities of improving the operation of photocells and lasers using induced coherence.

The grant will also provide opportunities for Baylor students to gain valuable research experiences in the fields of quantum optics, atomic & molecular physics and semiconductor devices.

Scully's research will be conducted in his new lab facilities at the Baylor Research and Innovation Collaborative (BRIC), the centerpiece of the Central Texas Technology and Research Park, slated to open in early 2013.

Dr. Scully, who recently joined the Baylor faculty, also holds appointments at Princeton and Texas A&M universities.

MARK YOUR CALENDAR

February '13
6

February '13
20

Internal grant deadlines coming soon

The OVPR would like to remind faculty of the deadlines to apply for internal grant funding through the Faculty Research Investment Program (FRIP), Young Investigator Development Program (YIDP), University Research Committee (URC) and Undergraduate Research & Scholarly Achievement (URSA) programs.

Applications for the FRIP, YIDP, and URSA programs are due on February 6, 2013. The deadline for the URC program is February 20, 2013.

In addition to the FRIP, YIDP, URC and URSA programs, applications to the Arts & Humanities Faculty Research Program (AHFRP) are accepted year-round.

Click here for more information about each of these programs. To begin the application process, contact your department's assigned **OSP coordinator**.

"[URC funding] has allowed me to publish scientific articles and set up a vector biology lab. During 2012, one of my grants submitted to NIH was awarded. The major preliminary data was prepared with support from the URC."

Dr. Cheolho Sim
Assistant Professor of Biology

Templeton Foundation grant supports interdisciplinary research on the nature of atonement

Dr. Trent Dougherty, an assistant professor in Baylor's Philosophy Department, is the principal investigator on a research project aimed at exploring the concept of atonement -- the way in which the death and resurrection of Jesus brings humans into a right relationship with God.

Dougherty says there are two main perspectives on atonement, both based on the notion that human sin created a 'debt' between people and God. "One perspective holds that Jesus' actions paid the debt on behalf of humanity, the other maintains that because of Jesus' actions, God canceled the debt," he said.

"The differences between the two perspectives are important because they impact the way we view concepts like forgiveness and mercy, and they can even affect the way in which we evangelize."

Dougherty's project will bring together Baylor faculty and graduate students from the religion and philosophy departments and Truett Seminary for a series of reading, discussion and seminar groups related to this central issue in Christian theology.

The award will provide funds to allow Dougherty and his colleagues to invite prominent scholars to Baylor to participate in discussions with the research group members.

The grant is funded by the Templeton Foundation, which awarded a cluster grant to the University of Notre Dame's Center for Philosophy of Religion. The Notre Dame center, in turn, awards grants to support the formation of interdisciplinary research groups at universities around the nation.

UPCOMING WORKSHOP

Want to write better grant proposals?

This January, the OVPR will present its third annual proposal development workshop. This event will help investigators of all experience levels compete more successfully for external research funding.

Faculty will attend one of the two sessions depending on their academic area and prospective target funding agency.

The science session on Thursday, January 10, 2013 is intended for faculty who plan to apply to agencies like the NSF, NIH, Department of Defense, NASA, etc. The arts and humanities session is meant for faculty who plan to apply to agencies like the NEH, NEA or Department of Education, or those who are interested in seeking funding from private foundations.

Click here to register for the workshop, or contact **Blake Thomas** at 710-3153 for more information.

> ### Third Annual OVPR Proposal Development Workshop
>
> January 10, 2013 (Science faculty)
> January 11, 2013 (Arts & Humanities faculty)
> Baylor Sciences Building, room E.231

COMPLIANCE CORNER

Keeping research projects current

Dr. David Schlueter, chair of Baylor's Institutional Review Board (IRB) would like to remind faculty of the importance of submitting timely continuing reviews for approved research projects.

IRB approval is valid for one year, and continuing review or re-approval of research must take place before the approval's date of expiration.

Schlueter says that letting a project expire has consequences for the researcher. "There is no provision in the federal regulations for research that expires. Once a project has expired, the principal investigator can no longer enroll participants in the study, and may not be able to use the data collected when the project was out of compliance."

The expiration date of a project is included on IRB approval letters, and the board sends courtesy e-mails to investigators 60 and 30 days prior to the expiration of the study.

Researchers are strongly encouraged to submit requests for continuing reviews through IRBNet two weeks before a project expires. If the researcher proposes an amendment to the approved study, both the amendment and the continuing review need to be entered into IRBNet at the same time. Meeting this deadline will give IRB the necessary time to act on these requests and ensure that projects avoid expiration.

Contact **Jill Combs** in the OVPR at 710-3708 with any questions about the process of requesting continuing reviews or amendments through IRBNet.

URSA announces application dates for 2013 Scholars Week presentations

The Undergraduate Research and Scholarly Achievement (URSA) Steering Committee would like to remind faculty to be in contact with their undergraduate students who are working on independent research projects and make them aware of the 2013 URSA Scholars Week application process.

Learn About URSA Small Grants
Many Scholars Week presentations are the result of work performed with funds from the URSA Small Grants Program. Grant applications are due on February 6, 2013. Click here for more information.

The 2013 Scholars Week event will take place the week of April 8-11, 2013. Students may participate by giving an oral presentation, displaying a poster, or exhibiting a piece of artwork. Scholars Week is a great opportunity for students to gain experience presenting research to colleagues without having to travel to a distant conference.

To present at Scholars Week, students must receive approval from their department chairs.

Dr. David Jack, left, looks on as his student, Hayden Duke, presents a poster at the 2012 Scholars Week event. Nearly 150 students took part in the four-day celebration of undergraduate research and creative activities.

Applications are due March 6, 2013, and an updated 2013 application form will be available on the URSA website soon. Please make sure your students are aware of this upcoming opportunity and encourage them to consider participating.

AGENCY UPDATE

NSF Issues 2013 Proposal and Award Policies and Procedures Guide

The National Science Foundation has issued its updated Proposal and Award Policies and Procedures Guide, which goes into effect January 14, 2013.
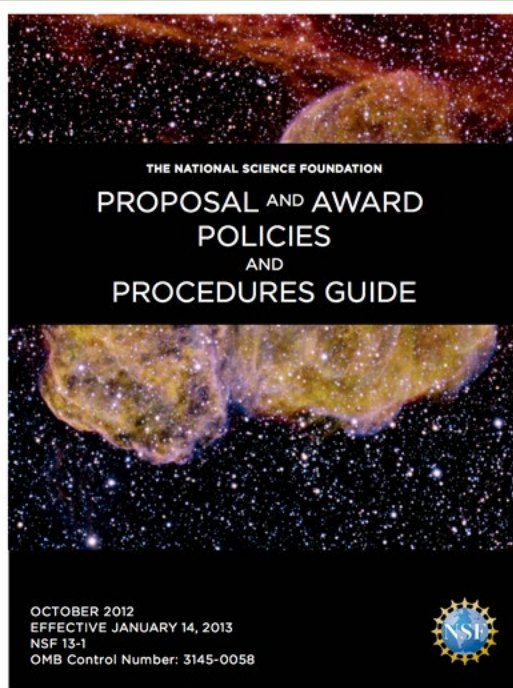
The guide contains revisions to merit review criteria, clarifications on indirect costs and other changes.

Alongside the release of the new procedures guide, NSF is providing supporting materials and other resources including:

- A revised **NSF Merit Review website** with information on the new regulations;
- A **resource website** for investigators containing presentations, fact sheets and other important links; and
- A webinar in early November 2012 covering all of the PAPPG revisions. Send an e-mail to **policy@nsf.gov** to be notified when this webinar is available.

The new PAPPG goes into effect for proposals submitted or due on or after January 14, 2013. Until then, requirements in the current PAPPG continue to apply.

Click here to access the 2013 PAPPG.

THE NATIONAL SCIENCE FOUNDATION
PROPOSAL AND AWARD POLICIES AND PROCEDURES GUIDE

OCTOBER 2012
EFFECTIVE JANUARY 14, 2013
NSF 13-1
OMB Control Number: 3145-0058

Federal Grants

Opportunity Title	Due Date
NIH - Behavioral and Social Science Research on Understanding and Reducing Health Disparities (R01)	12/14/2012 (LOI)
NSF - Information and Intelligent Systems (IIS): Core Programs	12/17/2012
Office of Naval Research - Young Investigator Program	01/04/2013
NEH - America's Historical & Cultural Organizations: Planning Grants	01/09/2013
NSF - Long-term Research in Environmental Biology	01/10/2013 (Pre-Proposal)
NEA - Our Town	01/14/2013
Institute of Museum and Library Services - Museums for America	01/15/2013
NSF - Political Science	01/15/2013
NSF - Interdisciplinary Behavioral and Social Science Research	01/23/2013

Foundation Grants

Opportunity Title	Due Date
Mellon Foundation - Higher Education Diversity Initiatives	Continuous
McKnight Foundation - Technological Innovations in Neuroscience Awards	12/03/2012
The Environmental Research & Education Foundation - General Solid Waste Research	01/05/2013
U.S. Institute for Theatre Technology - Performing Arts Design and Technology Fellowships	01/10/2013
Oncology Nursing Society - Adherence to Oral Chemotherapy Research Grant	01/07/2013

Search for funding with COS Pivot

The OVPR maintains a subscription to COS Pivot, a searchable database of funding opportunities in all academic areas. To search for funding in your discipline and receive email alerts with newly listed opportunities, **sign up with COS Pivot** today. If you have questions or would like training on using COS Pivot, contact **Blake Thomas** in the OVPR at 254-710-3153.

Ready to apply?

If you'd like to apply for these or other specific opportunities, contact your department's assigned **OSP coordinator**.