Heart Grant Probes Thrombotic Diseases

Dr. Xue-Long Sun has been awarded an American Heart Association (AHA) Grant-in-Aid Grant (total $154,000, for two years). Thrombotic diseases remain the leading cause of death and chronic disability in the U.S. Antithrombotic agents play important roles in both treatment and prevention of thrombotic diseases. This project aims to develop a new class of endothelial thrombomodulin-based antithrombotic agent, which has a better therapeutic and safety profile, in particular, recombinant thrombomodulin (TM)-glycosaminoglycan (GAG) conjugates with potent antithrombotic activity and less site-effect such as bleeding.

Dr. Xue-Long Sun is a Professor of Pharmaceutical Chemistry and Biomedical Engineering, and a member of the Center for Gene Regulation in Health and Disease (GRHD) at CSU. In addition, Dr. Sun holds an Adjunct Faculty position at Department of Molecular Cardiology, Cleveland Clinic. Dr. Sun's research group conducts research on novel antithrombotic and antiviral agents and targeted drug delivery systems, and cell surface re-engineering and applications.

He has served as PI for NIH RO1 and NSF MRI, American Heart Association (AHA) and American Health Assistance Foundation research grants. Currently, he serves as an Advisory Review Board Member of an NIH-NHLBI P20 Grant (2013-2017), Executive Editor of Journal of Glycomics and Lipidomics and Editorial Board Member of Virus Adaptation and Treatment, International Journal of Organic Chemistry, and Guest Editor for Medicinal Research Reviews. In addition, he serves on a grant proposal review panel for NIH and AHA research proposals. Dr. Sun was the recipient of the 2012 Distinguished Faculty Award for Research at CSU, and the 2011 Outstanding Research Award in the College of Sciences at Health Professions at CSU.
A recent collaborative work, conducted in the laboratories of two CSU professors, Dr. Barsanjit Mazumder (left) and Dr. Sailen Barik (right), has made a significant breakthrough in the combat against a serious human pathogen, Respiratory Syncytial Virus (RSV). This virus infects the lungs of young children and causes serious respiratory disease with Pneumonia-like symptoms that can turn deadly. The infection of children with this virus has been strongly implicated in Sudden Infant Death Syndrome (SIDS). Repeated attempts to develop a reliable vaccine against RSV has failed; moreover, no specific antiviral against RSV exists. Therefore, the focus is now to promote or activate our endogenous immune system against this virus.

These researchers discovered an extremely surprising and novel mechanism of our immune system that is actively engaged against this virus by targeting a weak point of the pathogen. Research conducted in their laboratory at CSU showed how a component of our cell's own protein synthesis machinery could target this virus and block its growth inside our cells. This discovery is providing significant opportunities to develop new generation of antiviral therapy against this virus by activating our own protection mechanisms.

Recently a premier journal on viruses, "Journal of Virology" published this work and featured it as Spotlight, which is a recognition of merit and innovation by the Editor.

Drs. Barik and Mazumder are the members of the Center for Gene Regulation in Health and Disease (GRHD) and the Department of Biological, Geological, and Environmental Sciences at Cleveland State University. Other contributing investigators of this work are Dr. Darshana Poddar, Dr. Abhijit Basu, Ravinder Kour and Valentina Verbovetskaya.

The Office of Research welcomes Professors Lolita Buckner Inniss, Cleveland-Marshall College of Law, and Joan Thoman, School of Nursing, to new three-year terms on the University Research Council (URC), effective at the beginning of the fall 2014 semester and ending at the end of the spring 2017 semester.

The URC advises the Vice President for Research on policies and programs designed to enhance research productivity and success, and reviews proposals for the internal funding programs - including the Dissertation Research Award, the Faculty Scholarship Initiative, and the Faculty Research and Development Program. The Office of Research appreciates the service of the URC on behalf of all CSU Researchers.
Three New Members on the IRB

The Office of Research welcomes Professors Cheryl Delgado, School of Nursing, Monica Gordon Pershey, School of Health Sciences, and Kathleen Little, Department of Health and Human Performance, as the newest Members of CSU's Institutional Review Board (IRB). The Office of Research appreciates the service of the IRB on behalf of all CSU Researchers who work with human participants.

NSF Graduate Research Fellowship Program

The NSF Graduate Research Fellowship Program (GRFP) application period is now open! NSF is soliciting applications for the GRFP until the posted deadlines in late October and early November 2014. Since 1952, GRFP has provided Fellowships to individuals selected early in their graduate careers based on their demonstrated potential for significant achievements in science and engineering. Three years of support is provided by the program for graduate study in science or engineering and leads to a research-based master's or doctoral degree.

The NSF expects to award 2,000 Graduate Research Fellowships under this program solicitation pending availability of funds: Graduate Research Fellowship Program (GRFP) PROGRAM SOLICITATION (NSF 14-590)

New Financial Conflict of Interest Regulations

Public Health Service (PHS) financial disclosure regulations FCOI policy mandates training once every four (4) years for investigators who will submit a proposal to, or receive pass-through funding from, any of the PHS agencies (AHRQ, ATSDR, CDC, FDA, HRSA, HIS, NIH and SAMHSA). Some non-federal agencies are adopting the PHS regulations, such as the American Heart Association (AHA).

SPRS will require any investigator who has not taken the training to complete it before we will be able to submit an application to these agencies. Investigators include any personnel working on your grant who are responsible for design, conduct, or reporting of research. Detailed changes to the FCOI policy can be found here. It would be prudent for you and any appropriate staff to take the training now if you are planning to submit to any of these agencies in the future. The link to testing is here. Please contact Teri Kocevar, Director of Sponsored Programs and Research Services, at x3675 with any questions.

Learn How to Use SPIN to Find Funding Opportunities for Your Research

The Office of Research is pleased to invite all CSU faculty, staff, and student researchers interested in learning how to use SPIN to attend a webinar on Tuesday, September 16th 11:30am - 12:30pm by following these instructions. SPIN is an extensive research funding opportunity database that allows you to locate all types of funding for your research.

Attend the Research Poster Session on September 4th
The Office of Research encourages students, faculty, and staff to attend the 2014 Undergraduate Research Poster Session on Thursday, September 4, 2014, from 10am - 2pm in the Student Center Atrium.

Students and faculty will discuss their research funded with a 2014 Undergraduate Summer Research Award. The Office of Research encourages undergraduate and graduate students to become actively engaged in research. Read about current and past student research associated with the event:

- Summer 2014 Recipients & Events
- Summer 2013 Recipients & Events
- Summer 2012 Recipients & Events

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**Featured Researcher Video Series**

Dr. Raymond Henry's research is the focus of the latest installment of the Featured Researcher Video series. Dr. Henry is an Associate Professor in the Department of Computer and Information Science at Cleveland State University.

His research interests include information systems, system analysis and design, and human computer interaction. His work has been published in premier journals including *Information Systems Research*, *Journal of Management Information Systems*, *Communications of the ACM*, *Journal of AIS*, and *Journal of Operations Management*. We encourage you to learn about Dr. Henry's work, and to take a look at our previous Featured Researcher Videos.

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**CSU Scholar News**

Dr. James J. Marino, associate professor of English, attempts to reshape the way Shakespeare's plays are read and discussed in the 21st century. His first book, *Owning William Shakespeare: The King's Men and Their Intellectual Property*, recently reissued in paperback, combines theater history, textual studies, and literary theory to rethink the way Shakespeare's plays were created and the way they came to be known as his, overturning a century of previous scholarship focused on the author's lost manuscripts. His most recent article, "Burbage's Father's Ghost" seeks to overturn a long tradition of reading Hamlet through William Shakespeare's biography by exploring the more fruitful connections with the life of the first actor to play *Hamlet*. 
He is currently working on a number of essays and two book projects. One, *The Laius Complex*, looks to re-start Freudian criticism from a new direction, reading many of Freud's central theories as defense mechanisms designed to conceal very different psychological truths. The other, *Shakespeare in Motion*, builds a new model for understanding the growth and revision of Shakespeare's plays by reconstructing the fragmentary performance scripts his actors used. Over the past year, he used a Faculty Scholarship Initiative grant to study surviving theatrical manuscripts in London and Oxford while completing an article about the changing scripts of *Hamlet*.

Please share with us important news or updates on your research, scholarly, or creative activities. Updates may be related to a paper that has been accepted for publication in a high-impact journal, a book you've just published, your work that will be exhibited at a prominent institution, or other updates you wish to share with our office. Send details to j.yard@csuohio.edu and c.mclennan@csuohio.edu.