



Volume 4
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DATES TO REMEMBER

- October 21: CATALYST Seminar, *Dr. Majid Moridani*
- November 18: CATALYST Seminar *Dr. Sanjay Srivastava*
- December 16: CATALYST Seminar
- January 20: CATALYST Seminar *Dr. Cindy Raehl*

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The Newsletter of the School of Pharmacy's Office of Research

Mission of the Office of Research

The Mission of the Office of the Associate Dean for Research is to promote and facilitate both clinical and basic science research for the faculty of the School of Pharmacy (SOP) in conjunction with the School of Medicine, School of Nursing, School of Allied Health, and other health professionals through all phases of research design, procurement of funding, managing the research process, and dissemination of results to the professional community. The Office of the Associate Dean for Research in the SOP (Amarillo campus) is available to all faculty on all campuses. The purpose of this office is to act as a resource for the granting process, facilitate research, and administer internal research programs.

SOP Researchers Seek a Cure for Breast Cancer



The Department of Defense awarded the Breast Cancer

Center for Excellence funding in support of "Studies Directed toward the Eradication of Brain Metastases of Breast Cancer." The Center consists of twenty-four private investigators all working toward one major goal: a cure for breast cancer. To find this cure, it is up to these scientists to answer these questions: What molecular aspects of tumor cells contributed to brain metastatic propensity? What is the role of brain physiology in brain metastasis of breast cancer? And can they combine knowl-

edge from these two fields to identify, preclinically validate and clinically test strategies to prevent or improve the treatment of brain metastases? TTUHSC SOP's Dr. Quentin Smith and Dr. Paul Lockman where both privileged enough to be a part of this amazing opportunity.

Brain metastasis of breast cancer is a devastating disease that is potentially rising in incidence. There is currently no effective treatment and there are several serious quality of life issues with current treatments. Dr. Smith and Dr. Lockman are working on the blood-brain-barrier (BBB) and brain drug delivery of different types of treatments/drugs. As a requirement of the center, our two faculty must at-

tend an annual meeting, monthly updates, and work closely



with other center members on various projects. As a result of this grant opportunity, Dr. Smith and Dr. Lockman have several peer-reviewed publications, have been invited to several national meetings as speakers, and have found a new passion for science.

If you would like more information on the background of breast cancer metastases to brain and their implications or more information and links to the Center visit <http://www.brainmetsbc.org>. ♦

Dr. Smith Speaks at National Conferences

Quentin Smith, TTUHSC Distinguished Professor & Chair of the Pharmaceutical Sciences Department, was invited to The American Society of Clinical Oncology breast cancer meeting last month in Washington, DC. Dr. Smith presented "Lapatinib distribution in brain metastases of breast can-

cer following oral dosing in mice." After attending the meeting, Dr. Smith flew to Amelia Island, FL to attend the Annual Meeting of DOD Center of Excellence in Breast Center where attendees had the opportunity to see his presentation "Report of research on drug permeability to brain metastases

and planning for upcoming clinical trial. In October, the Department Chair will be traveling to Boston, MA for the Annual Carolyn Frye-Halloran Symposium and to New York, NY to the Study Section Review panel for the Michael J Fox Foundation. ♦

CATALYST Seminar Series Starts Back Up

September hosted the first of this season's CATALYST seminars. Quentin Smith, Ph.D. Pharmaceutical Sciences Chair, spoke to several faculty and post doctoral fellows, Tuesday, September 16th.

Dr. Smith's presented "Drug uptake into brain metastases of breast cancer." Faculty and Post Docs are encouraged to ask and discuss the research or grant ideas being presented. The next seminar will

be Tuesday, October 21st with Dr. Majid Moridani. If you would like to attend or present your research, RSVP to the Office of Research by Friday, October 17th. ♦

Pharm Sci Department Welcomes New Faculty

Vardan Karamyan, Pharm.D., Ph.D. joined the School of Pharmacy's Pharmaceutical Sciences department in August, after three and a half years with the University of Mississippi. Dr. Karamyan received his Pharm.D. (Hons.) from the School of Pharmacy, Yerevan State Medical University, Armenia, and Ph.D. in Biology from the Institute of Biochemistry, National Academy of Sciences, Yere-

van, Armenia. After completing the Ph.D. program in Biology and having a research Faculty position at the School of Pharmacy, Yerevan State Medical University, Dr. Karamyan joined the laboratory of Dr. Robert C. Speth at the Department of Pharmacology, School of Pharmacy, University of Mississippi (UM). While there, he studied brain angiotensin receptors and their role in angiotensin II and



grading angiotensins, Dr. Karamyan discovered a novel binding site for angiotensin peptides.

His primary research interests involve understanding of the nature and function of the brain renin-angiotensin system in health and disease. The ongoing studies are focused on isolation and identification of the novel angiotensin binding site and revealing its physiological and/or pathophysiological function. Dr. Karamyan will be mentoring new graduate student Mamunur Rashid. ♦



Names in the News

Dr. Cynthia Raehl was recognized by TTUHSC and her peers for her role as the FY 2008 American Association of Colleges of Pharmacy (AACP) President. Dr. Raehl received a plaque honoring her great achievement. Friends and family



along with TTUHSC faculty and staff attended a reception August 15th to congratulate her on a job well done. Dr. Raehl plans to continue to work with the AACP for many years to come. ♦

Cancer Biology Center Members & New Research Building

It is official: the Cancer Biology Center members will be the new residents of the Coulter Research Building. The Center strives to enhance basic and translational research within the field of cancer biology and therapeutics through the individual and collaborative effects of its members. Their goal is to improve the healthcare of people through the biomedical

and pharmaceutical research to discover mechanisms underlying cancer development for better diagnosis and treatment. The Cancer Center recently welcomed their newest member, Dr. Xinli Liu, giving the center 9 current members, of which 77% currently have extramural peer reviewed funding.

The building is scheduled to open in December and faculty members

will begin moving in starting late December and January. The open laboratory set up of the building will provide the center's members with the opportunity to work closely together on shared projects. The facility will be equipped with modern equipment and all needed infrastructure to conduct world class research in cancer biology ♦

Seminars

Kaushik Shah, Graduate Student/Research Assistant. Monday, August 25, 2008. SOP Room 107.

“Characterization of Blood Brain Barrier Permeability Changes in Time and Space during Ischemia/Reperfusion injury.”

specific C5a receptor antagonist.”

Joe Bass, Graduate Student/Research Assistant. Monday, September 15, 2008. SOP Room 107. "Development of TCRm Antibodies Against HLA-G: Potential Multi-cancer Immunotherapy."

Vamshi Manda, Graduate Student/Research Assistant. Monday, September 15, 2008. SOP Room 107. "Nicotine inhibits P-glycoprotein- *in vitro* and *in situ* evidence."



Dr. Trent Woodruff, Development Fellow, University of Queensland, School of Biomedical Sciences, Brisbane, Australia. Monday, September 8, 2008. SOP Room 107. "Role of the complement factor 5a (C5a) in neurodegenerative disease: inhibition of neuro-inflammation with a

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Vivek Gupta, Graduate Student/Research Assistant. Monday, September 22, 2008. SOP Room 107. "Inhalable Long Acting Prostaglandin E₁: An Alternative to the Current Therapies for Pulmonary Arterial Hypertension."

Prabodh Kandala, Graduate Student/Research Assistant. Monday,

September 22, 2008. SOP Room 107. "Anticancer effects of 3,3'-diindolylmethane against Ovarian cancer cells."

Shashi Kudugunti, Graduate Student/Research Assistant. Monday, September 29, 2008. SOP Room 107. The Biochemical Mechanism of 4-Pyrrolphenol Toxicity in Melanoma Cell Lines: A Mela-

noma Targeted Prodrug Approach."

Li Yang, Graduate Student/Research Assistant. Monday, September 29, 2008. SOP Room 107. "Anti-edematous Effects of Opioids during Oxygen Glucose Deprivation." ♦

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Publications

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Stranahan AM, **Arumugam TV**, Cutler RG, Lee K, Egan JM, Mattson MP. Diabetes impairs hippocampal function through glucocorticoid-mediated effects on new and mature neurons. *Nat Neurosci*. 2008 Mar;11(3):309-17.

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literature. *Pharmacotherapy*. 2008 Jul;28(7):932-8.

Rahman AP, Eaton SA, Nguyen ST, **Bain AM**, **Payne KD**, Bedimo R, **Busti AJ**. Safety and efficacy of simvastatin for the treatment of dyslipidemia in human immunodeficiency virus-infected patients receiving efavirenz-based highly active antiretroviral therapy. *Pharmacotherapy*. 2008 Jul;28(7):913-9.

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