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The communication source for PMI
Faculty, Staff & Students

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The PMI Times

Department of Pathology, Microbiology and Immunology



*University of South Carolina
School of Medicine*

News & Updates

- Dr. Carole Oskeritjian recently joined the PMI Department as an Assistant Professor. She is the recipient of a new NIH/NIAID RO1 grant entitled, "Mast Cell S1P receptor 2 in the initiation and progression of chronic inflammation." This \$1.3 Million dollar grant will be funded over the next four years. Please join us in welcoming her and feel free to visit the PMI Webpage to learn more about her research & publications!!!!
- Based on the 2011 NIH funding rankings, our department is ranked 35th among Departments of Pathology and 40th among Departments of Microbiology & Immunology nationally. This is an improvement from 81st and 91st among Departments of Pathology and Departments of Microbiology & Immunology, respectively, since 2004. This is reflective on an increase in annual departmental funding for research from ~\$600,000 in 2004 to ~\$6million in 2011.
- Dr. Michael Rouse, from Drs. Mitzi & Prakash Nagarkatti's Lab, successfully defended his research work entitled "The Effects of Immunomodulatory agents on the development of Experimental Autoimmune encephalomyelitis". He will be joining the National Institute of Aging (NIH) as a Post Doctoral Fellow.
- Dr. Prakash Nagarkatti and Dr. Mitzi Nagarkatti have been awarded a 5-year National Institutes of Health (NIH) Center of Biomedical Research Excellence (COBRE) grant entitled Center for Dietary Supplements and Inflammation for \$10.1 million. The grant will provide support to junior faculty, Drs. Angela Murphy (Dept. of Pathology, Microbiology and Immunology), Melissa Moss (Dept. of Chemical Engineering), Daping Fan (Dept. of Cell Biology and Anatomy) and Taixing Cui (Dept. of Cell Biology and Anatomy). The interdisciplinary center will help in the recruitment and training of at least 16 faculty members encompassing six different schools and colleges at USC, including the School of Medicine, the Arnold School of Public Health, the College of Arts and Sciences, the College of Engineering and Computing, the College of Pharmacy and the College of Nursing.
- The Nyland lab has received a subaward on an NIH P60 grant with MUSC: MCRC for Rheumatic Diseases in African Americans.
- Dr. Prakash Nagarkatti Chaired the NIH Study Section on "Mechanistic Research on CAM Natural Products (RO1)" held at Washington, DC on July 18-20, 2012.
- Dr. Nyland has been asked to serve as the Women's Health Research Forum Scientific Committee Chairperson. Please save the date for the 2012 meeting (November 2nd) - it's free and a great opportunity to network at USC! For more information check out <http://whrf.med.sc.edu/index.asp>
- Dr. Mitzi Nagarkatti served on the National Institutes of Health (NIH) Brain Disorders and Clinical Neurosciences Special Emphasis Panel reviewing grants of regular members of study sections mainly Clinical Neuroimmunology and Brain Tumors Study Section.
- Dr. Prakash Nagarkatti was invited to serve on a Review Panel by the National Center for Advancing Translational Sciences (NCATS) in Aug, 2012. The National Center for Advancing Translational Sciences (NCATS), NIH, has launched a pilot program for discovering new therapeutic uses for existing molecules applicable across a broad range of human diseases. This innovative program will involve agents and associated data from pharmaceutical company partners with the best ideas for new therapeutic uses from the biomedical research community.

News & Updates Continued..



“Scientific progress makes moral progress a necessity; for if man's power is increased, the checks that restrain him from abusing it must be strengthened.”

Madame de Stael

- Dr. Prakash Nagarkatti serves as a regular member of the Integrative and Clinical Endocrinology and Reproduction Study Section of the NIH. He served on this review panel in June, 2012.
- Dr. Mitzi Nagarkatti served on the Veterans Administration Biomedical Laboratory R & D/ Clinical Sciences R & D Neurobiology C Merit Grant Review Panel in June 2012.
- Dr. Ikbal Abbas, Assistant Professor from Baghdad University is spending a year in Dr. Mitzi Nagarkatti's lab supported through the Iraqi Scholar Rescue Fund.
- Laurie Ackora and Marie-Alix Pommier, students from the Universite d'Auvergne, France spent the summer pursuing research in Dr. Mitzi Nagarkatti's lab.
- Dr. Mitzi Nagarkatti has been invited to serve on the Department of Defense Congressionally Directed Medical Research Program, Clinical and Experimental Therapeutics-2 Peer Review Panel for the Prostate Cancer Research Program.
- Carol Venning, a student at Midlands Technical College and Contessica McKinney a USC student, completed a South Carolina Alliance for Minority Participation (SC-AMP) undergraduate research program in the laboratories of Dr. Angela Murphy & Dr. Ashok Chauhan this summer. This program was supported by the Office of the Vice President for Research and is designed to increase minorities in STEM through research experiences.
- Dr. Mitzi Nagarkatti has been invited to serve on the National Institute of Environmental Health Sciences (NIEHS) Centers for Children's Environmental Health and Disease Prevention Research Review Committee for evaluating the joint program between NIEHS and National Center for Environmental Research of the Environmental Protection Agency.
- Dr. Prakash Nagarkatti was selected to Chair a State-wide Task Force to develop Science and Technology plan.
- Christian Graves, a former SC INBRE undergraduate research fellow at Winthrop University, has joined Dr. Lucia Pirisi-Creek's laboratory following two years of research at the NIH.
- Dr. Prakash Nagarkatti was selected to serve for a 3 year term as a member of the National Panel for Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) in Aug 2012. It is part of US EPA and provides EPA with the oversight on the sale, use and toxicity of pesticides.
- A major component of the Administrative Core of SC INBRE, a center that is directed by Dr. Lucia Pirisi-Creek, has moved into our Department.

Reminder:

If you are interested in submitting news/updates from your lab, recent publications, & presentations for the upcoming PMI Newsletter... Please send all details to Chakira Hogan at chakira.hogan@uscm.edu Thank you for your contributions!

Recent Publications

- Robinson C. M., Jung J.Y., Nau, G. J. Interferon-g, tumor necrosis factor, and interleukin-18 cooperate to control growth of Mycobacterium tuberculosis in human macrophages. *Cytokine* 2012 Jun 29 [Epub ahead of print].
- Singh, N. P, U. P. Singh, H Guan, M. Nagarkatti, P. S. Nagarkatti. 2012. Prenatal exposure to TCDD triggers significant modulation of microRNA expression profile in the thymus that affects consequent gene expression. *PLoS ONE*. 7(6): e37650.
- Steiner J.L., Murphy E.A. Importance of CCL2 in Breast Cancer. *International Journal of Biological Markers*. 2012 Jul 31:0. doi: 10.5301/JBM.2012.9345.

Recent Publications Continued..

- Singh, N. P, U. P. Singh, M. Nagarkatti, P. S. Nagarkatti. 2012. Prenatal exposure of mice to diethylstilbestrol (DES) disrupts T cell differentiation by regulating Fas/FasL expression through ERE and NF- κ B motifs. *J Pharmacol Exp Ther.* Aug 10. [Epub ahead of print].
- Murphy E.A., Davis J.M., Brown A.S., Carmichael M.D., Ghaffar A., Mayer E.P. Effects of oat β -glucan on the macrophage cytokine response to HSV-1 infection in vitro. *Journal of Interferon and Cytokine Research.* 2012 Aug;32(8):362-7.
- Li J., Zheng H., Wang J., Yu F., Morris R.J., Wang T.C., Huang S., Ai W. Expression of Kruppel-like factor KLF4 in mouse hair follicle stem cells contributes to cutaneous wound healing. *PLoS One.* 2012;7(6):e39663. Epub 2012 Jun 20.
- Price MM, Oskeritzian CA, Falanga YT, Harikumar KB, Allegood JC, Alvarez SE, Conrad D, Ryan JJ, Milstien S, Spiegel S.J. A specific sphingosine kinase 1 inhibitor attenuates airway hyperresponsiveness and inflammation in a mast cell-dependent murine model of allergic asthma. *Allergy Clin Immunol.* 2012 Aug 29. [Epub ahead of print] PMID: 22939756
- Hossain MM, Banik NL, Ray SK. Survivin knockdown increased anti-cancer effects of (-)-epigallocatechin-3-gallate in human malignant neuroblastoma SK-N-BE2 and SH-SY5Y cells. *Exp Cell Res.* 2012 Aug 1;318(13):1597-610.
- Das A, Wallace GC 4th, Holmes C, McDowell ML, Smith JA, Marshall JD, Bonilha L, Edwards JC, Glazier SS, Ray SK, Banik NL. Hippocampal tissue of patients with refractory temporal lobe epilepsy is associated with astrocyte activation, inflammation, and altered expression of channels and receptors. *Neuroscience.* 2012 Sep 18;220:237-46.

Presentations

- Robinson, C. M. Changing the cytokine environment: implications in mycobacterial immunity for adults and newborns. 2nd International Conference on Vaccines and Vaccination, Chicago, Illinois. August 20, 2012.
- Murphy EA, McClellan JM, Davis JM, Steiner JL, Jung D, Carmichael MD, Carson JA, Pena MM, Berger FG. Linking tumor associated macrophages, inflammation, and intestinal tumorigenesis: Role of monocyte chemoattractant protein 1. Key-stone Symposia, Role of Inflammation in Carginogenesis, Dublin Ireland, 2012.
- Murphy EA, Steiner JL, Davis JM, McClellan JM, Carmichael MD. Voluntary Exercise Decreases Tumorigenesis in the C3(1)SV40Tag Mouse Model of Breast Cancer. American College of Sports Medicine Annual Meeting, San Francisco CA, June 2012.
- Steiner JL, Davis JM, McClellan JM, Green JE, Murphy EA. High Fat Diet Enhances Tumorigenesis and Pro-tumoral Factors in the C3(1)SV40Tag Mouse Model of Breast Cancer. American College of Sports Medicine Annual Meeting, San Francisco CA, June 2012.
- McClellan JL, Steiner JL, Enos RT, Davis JM, Murphy EA. Stage Specific Effects of Curcumin on Intestinal Polyp Development in ApcMin/+ Mice. American College of Sports Medicine Annual Meeting, San Francisco CA, June 2012.
- Mahoney SE, Murphy EA, McClellan JM, Gordon BT, Pena MM, Davis JM. Quercetin Supplementation Reduces Chemotherapy-induced Fatigue in Mice: Possible Role of MCP-1. American College of Sports Medicine Annual Meeting, San Francisco CA, June 2012.
- Jung SH, Murphy EA, Fayad R, Pena MM, Gordon BT, Carmichael MD, Davis JM. Peripheral MCP-1 Induces Fatigue and Modulates Central Fatigue-Associated Neural Factors in the Brainstem and Cerebellum. American College of Sports Medicine Annual Meeting, San Francisco CA, June 2012.
- Chen S, Davis JM, Murphy EA, Nesse M, Kostek MC, Lam K, Sieverdes J, Hirth V, Leone A, Jung D, Gordon B, Becofsky K, Torres-McGehee, Blair SN, Durstine JL. Effects of Quercetin Supplementation on Physical Function in Older Adults. American College of Sports Medicine Annual Meeting, San Francisco CA, June 2012.