

Department Publications 7/1/12-6/30/13

Job KM, Dull RO, Hlady V. Use of reflectance interference contrast microscopy to characterize the endothelial glycocalyx stiffness. *Am J Physiol Lung Cell Mol Physiol.* 2012 Jun 15;302(12):L1242-9. doi: 10.1152/ajplung.00341.2011. Epub 2012 Apr 13. PMID: 22505668

Polak PE, Dull RO, Kalinin S, Sharp AJ, Ripper R, Weinberg G, Schwartz DE, Rubinstein I, Feinstein DL. Sevoflurane reduces clinical disease in a mouse model of multiple sclerosis. *J Neuroinflammation.* 2012 Dec 19;9(1):272. [Epub ahead of print]

Lisi L, McGuire S, Sharp A, Chiosis G, Navarra P, Feinstein DL, Dello Russo C. The novel HSP90 inhibitor, PU-H71, suppresses glial cell activation but weakly affects clinical signs of EAE. *J Neuroimmunol.* 2012 Nov 1. doi:pii: S0165-5728(12)00311-6. 10.1016/j.jneuroim.2012.10.008. [Epub ahead of print]

Dello Russo C, Lisi L, Feinstein DL, Navarra P. mTOR kinase, a key player in the regulation of glial functions: Relevance for the therapy of multiple sclerosis. *Glia.* 2012 Oct 8. doi: 10.1002/glia.22433. [Epub ahead of print]

Kalinin S, Polak PE, Lin SX, Sakharkar AJ, Pandey SC, Feinstein DL. The noradrenaline precursor L-DOPS reduces pathology in a mouse model of Alzheimer's disease. *Neurobiol Aging.* 2012 Aug;33(8):1651-63. doi: 10.1016/j.neurobiolaging.2011.04.012. Epub 2011 Jun 25.

Colca JR, Feinstein DL. Altering mitochondrial dysfunction as an approach to treating Alzheimer's disease. *Adv Pharmacol.* 2012;64:155-76. doi: 10.1016/B978-0-12-394816-8.00005-2. Review.

Mao M, Varadarajan S, Ansenberger-Fricano K, Fernandes DC, Tanaka LY, Fukai T, Laurindo FRM, Mason RP, Vasquez-Vivar J, Minshall RD, Stadler K, Bonini MG. Nitroglycerin drives endothelial nitric oxide synthase activation via the phosphatidylinositol 3-kinase/protein kinase B pathway. *Free Radical Biol. Med.* 52(2):427-35, 2012.

Liu D, Yan Z, Minshall RD, Schwartz DS, Chen Y, Hu G. Activation of calpains mediates early lung neutrophilic inflammation in ventilator-induced lung injury. *Am. J. Physiol. Lung Cell. Mol. Physiol.* 302(4):L370-9, 2012.

Chen Z, Bakhshi F, Shajahan AN, Mao M, Trane A, Sharma T, Bernatchez P, van NieuwAmerongen GP, Bonini M, Skidgel RA, Malik AB, Minshall RD. Nitric oxide-dependent Src activation and caveolin-1 phosphorylation promotes eNOS/Cav-1 binding and eNOS inhibition. *Mol. Biol. Cell* 23(7):1388-1398, 2012.

Liu X*, Ma B*, Malik AB, Tang H, Yang T, Sun B, Wang G, Minshall RD, Li Y, Zhao Y, Ye RD, Xu J. Bidirectional regulation of neutrophil migration by MAP kinases. *Nature Immunology* 13:457-464, 2012.

Maniatis NA, Chernaya O, Shinin V, Minshall RD. Caveolins and lung function. *Adv. Exp. Med. Biol.* 729:157-79, 2012.

Desantiago J, Bare DJ, Enov I, Minshall RD, Geenen DL, Wolska BM, Banach K. Excitation-contraction coupling in ventricular myocytes is enhanced by paracrine signaling from mesenchymal stem cells. *J. Mol. Cell. Cardiol.* 52:1249-1256, 2012.

Piegeler T*, Votta-Velis EG*, Liu G, Place AT, Beck-Schimmer B, Minshall RD, Alain Borgeat. Anti-metastatic potential of amide-linked local anesthetics: Inhibition of lung adenocarcinoma cell migration and inflammatory Src signaling independent of sodium channel blockade. *Anesthesiology* 117:548-549, 2012.

Liu G, Place AT, Chen Z, Brovkovich VM, Vogel SM, Skidgel RA, Malik AB, Minshall RD. ICAM-1 activated Src and NO signaling increases endothelial cell surface PECAM-1 adhesivity and neutrophil transmigration. *Blood* 120:1942-52, 2012.

Maniatis NA, Kardara M, Hecimovich D, Letsiou E, Castellon M, Roussos C, Shinin V, Votta-Vellis EG, Schwartz DE, Minshall RD. Role of caveolin-1 expression in the pathogenesis of pulmonary edema in ventilator-induced lung injury. *Pulm. Circ.* 2(4):452-460, 2012 (including cover photo).

Herrmann IK, Castellon M, Schwartz DE, Hasler M, Urner M, Hu G, Minshall RD*, Beck-Schimmer B*. CF3-mediated protection - Sevoflurane and primary metabolite improve survival in cecal ligation and puncture model. *Anesthesiology* (in press). *Co-Sr. authorship.

Toledo P, Nixon HC, Mhyre JM, Wong CA, Weinberg G. Availability of Lipid Emulsion in United States Obstetric Units. *Anesth Analg.* 2012 Dec 24. [Epub ahead of print] PMID: 23267002

Laur JJ, Weinberg GL. Comparing safety in surface landmarks versus ultrasound-guided peripheral nerve blocks: an observational study of a practice in transition. *Reg Anesth Pain Med.* 2012 Nov-Dec;37(6):569-70. doi: 10.1097/AAP.0b013e318270bb8a. No abstract available. PMID: 23086345

McAllister RK, Weinberg GL. Lipid solubility of warfarin may contribute to warfarin resistance in patients receiving total parenteral nutrition. *Am J Med Sci.* 2012 Oct;344(4):340. No abstract available. PMID: 22996140

Krishnamoorthy V, Weinberg G. Phentolamine for neurogenic pulmonary edema: bench to bedside progress. *Chest.* 2012 Sep;142(3):809; author reply 809-10. doi: 10.1378/chest.12-0855. No abstract available. PMID: 22948592

Weinberg G. Hyperamylasemia following lipid resuscitation: pancreas or parotid? *Anesth Analg.* 2012 Sep;115(3):739. doi: 10.1213/ANE.0b013e318263c924. No abstract available. PMID: 22910642

Krishnamoorthy V, Hiller DB, Ripper R, Lin B, Vogel SM, Feinstein DL, Oswald S, Rothschild L, Hensel P, Rubinstein I, Minshall R, Weinberg GL. Epinephrine induces rapid deterioration in pulmonary oxygen exchange in intact, anesthetized rats: a flow and pulmonary capillary pressure-dependent phenomenon. *Anesthesiology*. 2012 Oct;117(4):745-54. PMID: 22902967

Weinberg GL. Lipid resuscitation: more than a sink. *Crit Care Med*. 2012 Aug;40(8):2521-3. doi: 10.1097/CCM.0b013e318258e930. No abstract available. PMID: 22809934

Petrov MN, Shilo VY, Tarasov AV, Schwartz DE, Garcia JG, Kost OA, Danilov SM. Conformational changes of blood ACE in chronic uremia. *PLoS One*. 2012;7(11):e49290. doi: 10.1371/journal.pone.0049290. Epub 2012 Nov 16. PMID: 23166630

Vetri F, Chavez R, Xu HL, Paisansathan C and Pelligrino DA. Complex modulation of the expression of PKC isoforms in the rat brain during chronic type 1 diabetes mellitus. *BrainRes* 1490: 202-209, 2013.

Watcharotayangul J, Mao L, Xu H, Vetri F, Baughman VL, Paisansathan C and Pelligrino DA. Post-ischemic vascular adhesion protein-1 inhibition provides neuroprotection in a rat temporary middle cerebral artery occlusion model. *J Neurochem* 123 Suppl 2: 116-124, 2012.

Wu J, Yan Z, Schwartz DE, Yu J, Malik AB, Hu G. Activation of NLRP3 Inflammasome in Alveolar Macrophages Contributes to Mechanical Stretch-Induced Lung Inflammation and Injury. *J Immunol*. 2013 Apr 1;190(7):3590-9. doi: 10.4049/jimmunol.1200860. Epub 2013 Feb 22.

Kim KH, Barazia A, Cho J. Real-time Imaging of Heterotypic Platelet-neutrophil Interactions on the Activated Endothelium During Vascular Inflammation and Thrombus Formation in Live Mice. *J Vis Exp*. 2013 Apr 2;(74). doi: 10.3791/50329.

Hahm E, Li J, Kim K, Huh S, Rogelj S, Cho J. Extracellular protein disulfide isomerase regulates ligand binding activity of $\alpha M\beta 2$ integrin and neutrophil recruitment during vascular inflammation. *Blood*. 2013 Mar 4. [Epub ahead of print]

Fettiplace MR, Ripper R, Lis K, Lin B, Lang J, Zider B, Wang J, Rubinstein I, Weinberg G. Rapid Cardiotonic Effects of Lipid Emulsion Infusion. *Crit Care Med*. 2013 Mar 25. [Epub ahead of print]

Vetri F, Chavez R, Xu HL, Paisansathan C, Pelligrino DA. Complex modulation of the expression of PKC isoforms in the rat brain during chronic type 1 diabetes mellitus. *Brain Res*. 2013 Jan 15;1490:202-9. doi: 10.1016/j.brainres.2012.10.032. Epub 2012 Oct 24.

Kaplan JR, Register T, Jorgensen MJ, Polak PE, Rubinstein I, Feinstein DL. Development of amyloid burden in African Green monkeys. Kalinin S, Willard SL, Shively CA, *Neurobiol Aging*. 2013 Apr 17.

doi:pii: S0197-4580(13)00136-X. 10.1016/j.neurobiolaging.2013.03.023. [Epub ahead of print]

Hvaring C, Vujicic S, Aasly JO, Feinstein DL, White LR, Boulterne AI. IgM to S-nitrosylated protein is found intrathecally in relapsing-remitting multiple sclerosis. *J Neuroimmunol*. 2013 Mar 15;256(1-2):77-83. doi: 10.1016/j.jneuroim.2012.12.011. Epub 2013 Jan 22.

Persu A, Lambert M, Deinum J, Cossu M, de Visscher N, Irenege L, Ambroise J, Minon JM, Nesterovitch AB, Churbanov A, Popova IA, Danilov SM, Danser AH, Gala JL. A Novel Splice-Site Mutation in Angiotensin I-Converting Enzyme (ACE) Gene, c.3691+1G>A (IVS25+1G>A), Causes a Dramatic Increase in Circulating ACE through Deletion of the Transmembrane Anchor. *PLoS One*. 2013;8(4):e59537. doi: 10.1371/journal.pone.0059537. Epub 2013 Apr 1.

Nowak K, Kölbel HC, Metzger RP, Hanusch C, Frohnmeier M, Hohenberger P, Danilov SM. Immunotargeting of the pulmonary endothelium via angiotensin-converting-enzyme in isolated ventilated and perfused human lung. *Adv Exp Med Biol*. 2013;756:203-12. doi: 10.1007/978-94-007-4549-0_26.