

Recent Student Publications

Estrogens Suppress Spinal Endomorphin 2 Release in Female Rats in Phase with the Estrous Cycle. **Kumar A¹**, **Storman EM**, Liu NJ, Gintzler AR. Neuroendocrinology. 2015 Apr 29. [Epub ahead of print]

Lack of parvalbumin in mice leads to behavioral deficits relevant to all human autism core symptoms and related neural morphofunctional abnormalities.

Wöhr M, Orduz D, Gregory P, Moreno H, **Khan U**, Vörckel KJ, Wolfer DP, Welzl H, Gall D, Schiffmann SN, Schwaller B. Transl Psychiatry. 2015

Toward an autonomous brain machine interface: integrating sensorimotor reward modulation and reinforcement learning. **Marsh BT¹**, Tarigoppula VS¹, Chen C², Francis JT³. J Neurosci. 2015 May 13;35(19):7374-87

A novel, live-attenuated vesicular stomatitis virus vector displaying conformationally intact, functional HIV-1 envelope trimers that elicits potent cellular and humoral responses in mice. **Rabinovich S¹**, Powell RL², Lindsay RW², Yuan M², Carpov A², Wilson A², Lopez M², Coleman JW², Wagner D², Sharma P², Kemelman M², Wright KJ², Seabrook JP², Arendt H², Martinez J², DeStefano J², Chiuchiolo MJ¹, Parks CL¹. PLoS One. 2014 Sep 12;9(9):e106597.

Feasibility of near-infrared spectroscopic tomography for intraoperative functional cerebral monitoring: a primate study. Lee DC, Gevorgyan T, Graber HL, **Pfeil DS**, Xu Y, Mangla S, Barone FC, Libien J, Charchafli J, Kral JG, Ramirez SA, Simpson L, Barbour RL. J Thorac Cardiovasc Surg. 2014

Oral microbiome link to neurodegeneration in glaucoma. **Astafurov K**, Elhawy E, Ren L, Dong CQ, Igboin C, Hyman L, Griffen A, Mittag T, Danias J. PLoS One. 2014 Sep 2;9(9):e104416.

Enhancing dentate gyrus function with dietary flavanols improves cognition in older adults. Brickman AM, **Khan UA**, Provenzano FA, Yeung LK, Suzuki W, Schroeter H, Wall M, Sloan RP, Small SA. Nat Neurosci. 2014 Dec;17(12):1798-803

Complement expression in the retina is not influenced by short-term pressure elevation. **Astafurov K¹**, Dong CQ², Panagis L¹, Kamthan G³, Ren L¹, Rozenboym A⁴, Perera TD⁵, Coplan JD⁶, Danias J⁷. Mol Vis. 2014 Jan 31;20:140-52. eCollection 2014.

Vagal control of cardiac electrical activity and wall motion during ventricular fibrillation in large animals. **Naggar I**, Nakase K, Lazar J, Saliccioli L, Selesnick I, Stewart M. Auton Neurosci. 2014 Jul;183:12-22.

Quantitative video laryngoscopy to monitor recovery from recurrent laryngeal nerve injury in the rat. Mor N, **Naggar I**, Das O, Nakase K, Silverman JB, Sundaram K, Stewart M, Kollmar R. *Otolaryngol Head Neck Surg*. 2014 May;150(5):824-6.

Relation of autonomic and cardiac abnormalities to ventricular fibrillation in a rat model of epilepsy. **Naggar I**, Lazar J, Kamran H, Orman R, Stewart M. *Epilepsy Res*. 2014 Jan;108(1):44-56.

Molecular drivers and cortical spread of lateral entorhinal cortex dysfunction in preclinical Alzheimer's disease. **Khan UA**, Liu L, Provenzano FA, Berman DE, Profaci CP, Sloan R, Mayeux R, Duff KE, Small SA. *Nat Neurosci*. 2014 Feb;17(2):304-11

Imaging patients with psychosis and a mouse model establishes a spreading pattern of hippocampal dysfunction and implicates glutamate as a driver. Schobel SA, Chaudhury NH, **Khan UA**, Paniagua B, Styner MA, Asllani I, Inbar BP, Corcoran CM, Lieberman JA, Moore H, Small SA. *Neuron*. 2013 Apr 10;78(1):81-93.

Determination of heart rate variability with an electronic stethoscope. Kamran H, **Naggar I**, Oniyuke F, Palomeque M, Chokshi P, Saliccioli L, Stewart M, Lazar JM. *Clin Auton Res*. 2013 Feb;23(1):41-7

ω -3 Fatty Acids Prevent Hepatic Steatosis, Independent of PPAR- α Activity, in a Murine Model of Parenteral Nutrition-Associated Liver Disease. Prince E, Lazare FB, Treem WR, Xu J, Iqbal J, Pan X, **Josekutty J**, Walsh M, Anderson V, Hussain MM, Schwarz SM. *JPEN J Parenter Enteral Nutr*. 2013 Jun 11;38(5):608-616. [Epub ahead of print]

Microsomal triglyceride transfer protein inhibition induces endoplasmic reticulum stress and increases gene transcription via Irf1 α /cJun to enhance plasma ALT/AST. **Josekutty J**, Iqbal J, Iwawaki T, Kohno K, Hussain MM. *J Biol Chem*. 2013 May 17;288(20):14372-83. doi: 10.1074/jbc.M113.459602. Epub 2013 Mar 26.

Measurement of the phospholipase activity of endothelial lipase in mouse plasma. Basu D, Lei X, **Josekutty J**, Hussain MM, Jin W. *J Lipid Res*. 2013 Jan;54(1):282-9. doi: 10.1194/jlr.D031112. Epub 2012 Oct 26.

Use of frontal lobe hemodynamics as reinforcement signals to an adaptive controller. **DiStasio MM**, Francis JT. *PLoS One*. 2013 Jul 22;8(7):e69541. doi: 10.1371/journal.pone.0069541. Print 2013.

Dysregulation of ubiquitin-proteasome pathway and apolipoprotein A metabolism in sickle cell disease-related pulmonary arterial hypertension. Anjum F, Lazar J, **Soh J**, Albitar M, Gowda S, Hussain MM, Wadgaonkar R. *Pulm Circ*. 2013 Dec;3(4):851-5

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MicroRNA-30c reduces hyperlipidemia and atherosclerosis in mice by decreasing lipid synthesis and lipoprotein secretion. **Soh J**, Iqbal J, Queiroz J, Fernandez-Hernando C, Hussain MM. *Nat Med*. 2013 Jul;19(7):892-900

Regional vulnerability in Huntington's disease: fMRI-guided molecular analysis in patients and a mouse model of disease. Lewandowski NM, Bordelon Y, Brickman AM, Angulo S, **Khan U**, Muraskin J, Griffith EY, Wasserman P, Menalled L, Vonsattel JP, Marder K, Small SA, Moreno H. *Neurobiol Dis*. 2013 Apr;52:84-93.

An electric field model for prediction of somatosensory (S1) cortical field potentials induced by ventral posterior lateral (VPL) thalamic microstimulation. Choi JS, **DiStasio MM**, Brockmeier AJ, Francis JT. *IEEE Trans Neural Syst Rehabil Eng*. 2012 Mar;20(2):161-9. doi: 10.1109/TNSRE.2011.2181417. Epub 2011 Dec 23

PKM ζ is necessary and sufficient for synaptic clustering of PSD-95. Shao CY, **Sondhi R**, van de Nes PS, Sacktor TC. *Hippocampus*. 2012 Jul;22(7):1501-7.

R6/2 Huntington's disease mice develop early and progressive abnormal brain metabolism and seizures. Cepeda-Prado E, Popp S, **Khan U**, Stefanov D, Rodríguez J, Menalled LB, Dow-Edwards D, Small SA, Moreno H.

J Neurosci. 2012 May 9;32(19):6456-67. doi: 10.1523/JNEUROSCI.0388-12.2012. Autonomic boundary conditions for ventricular fibrillation and their implications for a novel defibrillation technique. **Naggar I**, Uchida S, Kamran H, Lazar J, Stewart M. *J Physiol Sci*. 2012 Nov;62(6):479-92

Optimizing microstimulation using a reinforcement learning framework. Brockmeier AJ, Choi JS, **Distasio MM**, Francis JT, Príncipe JC. *Conf Proc IEEE Eng Med Biol Soc*. 2011;2011:1069-72. doi: 10.1109/IEMBS.2011.6090249.

Silencing of the F11R gene reveals a role for F11R/JAM-A in the migration of inflamed vascular smooth muscle cells and in atherosclerosis. **Azari BM**, Marmur JD, Salifu MO, Cavusoglu E, Ehrlich YH, Kornecki E, Babinska A. *Atherosclerosis*. 2010 Sep;212(1):197-205.

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Stress-induced out-of-context activation of memory. Ježek K¹, **Lee BB**, Kelemen E, McCarthy KM, McEwen BS, Fenton AA. *PLoS Biol*. 2010 Dec 21;8(12):e1000570.