

2016 Student Publications-Rutgers SGS-Newark

Acioglu C, **Mirabelli E**, Baykal AT, Ni L, Ratnayake A, Heary RF, Elkabes S. Toll like receptor 9 antagonism modulates spinal cord neuronal function and survival: Direct versus astrocyte-mediated mechanisms. *Brain Behav Immun*. 2016 Aug;56:310-24. [PubMed](#)

Azzam EI, **Colangelo NW**, Domogauer JD, **Sharma N**, de Toledo SM. Is Ionizing Radiation Harmful at any Exposure? *An Echo That Continues to Vibrate. Health Phys*. 2016 Mar;110(3):249-51. [PubMed](#)

Bajaj D, **Geissler JR**, Allen MR, Burr DB, Fritton JC. Response to Courtney et al. *Bone*. 2016 Aug;89:77-79. [PubMed](#)

Beuve A, Wu C, **Cui C**, Liu T, Jain MR, **Huang C**, Yan L, Kholodovych V, Li H. Identification of novel S-nitrosation sites in soluble guanylyl cyclase, the nitric oxide receptor. *J Proteomics*. 2016 Apr 14;138:40-7. [PubMed](#)

Birge RB, Boeltz S, **Kumar S**, Carlson J, Wanderley J, **Calianese D**, Barcinski M, Brekken RA, Huang X, Hutchins JT, Freimark B, Empig C, Mercer J, Schroit AJ, Schett G, Herrmann M. Phosphatidylserine is a global immunosuppressive signal in efferocytosis, infectious disease, and cancer. *Cell Death Differ*. 2016 Jun;23(6):962-78. [PubMed](#)

Bliss SA, **Sinha G**, Sandiford OA, Williams LM, Engelberth DJ, **Guio K**, Isenalumhe LL, Greco SJ, Ayer S, Bryan M, Kumar R, Ponzio NM, Rameshwar P. Mesenchymal Stem Cell-Derived Exosomes Stimulate Cycling Quiescence and Early Breast Cancer Dormancy in Bone Marrow. *Cancer Res*. 2016 Oct 1;76(19):5832-5844. [PubMed](#)

Carabetta VJ, Greco TM, **Tanner AW**, Cristea IM, Dubnau D. Temporal Regulation of the Bacillus subtilis Acetylome and Evidence for a Role of MreB Acetylation in Cell Wall Growth. *mSystems*. 2016 May;1(3). pii: e00005-16. [PubMed](#)

Castellano P, Nwagbo C, Martinez LR, Eugenin EA. Methamphetamine compromises gap junctional communication in astrocytes and neurons. *J Neurochem*. 2016 May;137(4):561-75. [PubMed](#)

Chauhan R, Ravi J, Datta P, Chen T, Schnappinger D, Bassler KE, Balazsi G, Gennaro ML. Reconstruction and topological characterization of the sigma factor regulatory network of Mycobacterium tuberculosis. *Nat Commun*. 2016 Mar 31;7:11062. [PubMed](#)

Chavda KD, Chen L, Fouts DE, Sutton G, Brinkac L, Jenkins SG, Bonomo RA, Adams MD, Kreiswirth BN. Comprehensive Genome Analysis of Carbapenemase-Producing Enterobacter spp.: New Insights into Phylogeny, Population Structure, and Resistance Mechanisms. *MBio*. 2016 Dec 13;7(6). pii: e02093-16. [PubMed](#)

Chavda KD, Chen L, Jacobs MR, Bonomo RA, Kreiswirth BN. Molecular Diversity and Plasmid Analysis of KPC-Producing Escherichia coli. *Antimicrob Agents Chemother*. 2016 Jun 20;60(7):4073-81. [PubMed](#)

Chavda KD, Satlin MJ, Chen L, Manca C, Jenkins SG, Walsh TJ, Kreiswirth BN. Evaluation of a Multiplex PCR Assay To Rapidly Detect Enterobacteriaceae with a Broad Range of β -Lactamases Directly from Perianal Swabs. *Antimicrob Agents Chemother*. 2016 Oct 21;60(11):6957-6961. [PubMed](#)

Chu J, Vila-Farres X, Inoyama D, Ternei M, Cohen LJ, Gordon EA, Reddy BV, Charlop-Powers Z, Zebroski HA, Gallardo-Macias R, Jaskowski M, **Satish** S, Park S, Perlin DS, Freundlich JS, Brady SF. Discovery of MRSA active antibiotics using primary sequence from the human microbiome. *Nat Chem Biol*. 2016 Dec;12(12):1004-1006. [PubMed](#)

Clausi MG, **Kumari** E, Levison SW. Unmasking the responses of the stem cells and progenitors in the subventricular zone after neonatal and pediatric brain injuries. *Neural Regen Res*. 2016 Jan;11(1):45-8. [PubMed](#)

Couret J, Chang TL. Reactive Oxygen Species in HIV Infection. *EC Microbiol*. 2016;3(6):597-604. [PubMed](#)

Davra V, Kimani SG, **Calianese** D, Birge RB. Ligand Activation of TAM Family Receptors-Implications for Tumor Biology and Therapeutic Response. *Cancers (Basel)*. 2016 Nov 29;8(12). [PubMed](#)

Devany E, **Park** JY, Murphy MR, Zakusilo G, Baquero J, Zhang X, Hoque M, Tian B, Kleiman FE. Intronic cleavage and polyadenylation regulates gene expression during DNA damage response through U1 snRNA. *Cell Discov*. 2016 Jun 14;2:16013. [PubMed](#)

Dixit U, Pandey AK, **Mishra** P, Sengupta A, Pandey VN. Staufen1 promotes HCV replication by inhibiting protein kinase R and transporting viral RNA to the site of translation and replication in the cells. *Nucleic Acids Res*. 2016 Jun 20;44(11):5271-87. [PubMed](#)

Du H, Chen L, **Chavda** KD, Pandey R, Zhang H, Xie X, Tang YW, Kreiswirth BN. Genomic Characterization of Enterobacter cloacae Isolates from China That Coproduce KPC-3 and NDM-1 Carbapenemases. *Antimicrob Agents Chemother*. 2016 Mar 25;60(4):2519-23. [PubMed](#)

Dubnau EJ, Carabetta VJ, **Tanner** AW, Miras M, Diethmaier C, Dubnau D. A protein complex supports the production of Spo0A-P and plays additional roles for biofilms and the K-state in Bacillus subtilis. *Mol Microbiol*. 2016 Aug;101(4):606-24. [PubMed](#)

Dulal K, Cheng T, Yang L, Wang W, Huang Y, Silver B, **Selariu** A, Xie C, Wang D, Espeseth A, Lin Y, Wen L, Xia N, Fu TM, Zhu H. Functional analysis of human cytomegalovirus UL/b' region using SCID-hu mouse model. *J Med Virol*. 2016 Aug;88(8):1417-26. [PubMed](#)

Fotinos A, Fritz DT, Lisica S, Liu Y, Rogers MB. Competing Repressive Factors Control Bone Morphogenetic Protein 2 (BMP2) in Mesenchymal Cells. *J Cell Biochem*. 2016 Feb;117(2):439-47. [PubMed](#)

Fragale JE, **Khariv** V, **Gregor** DM, Smith IM, Jiao X, Elkabes S, Servatius RJ, Pang KC, Beck KD. Dysfunction in amygdala-prefrontal plasticity and extinction-resistant

avoidance: A model for anxiety disorder vulnerability. *Exp Neurol*. 2016 Jan;275 Pt 1:59-68. [PubMed](#)

Fu R, Zuo W, **Gregor** D, Li J, Grech D, Ye JH. Pharmacological Manipulation of the Rostromedial Tegmental Nucleus Changes Voluntary and Operant Ethanol Self-Administration in Rats. *Alcohol Clin Exp Res*. 2016 Mar;40(3):572-82. [PubMed](#)

Gopalakrishnan A, Dietzold J, Salgame P. Vaccine-mediated immunity to experimental Mycobacterium tuberculosis is not impaired in the absence of Toll-like receptor 9. *Cell Immunol*. 2016 Apr;302:11-18. [PubMed](#)

Gopalakrishnan A, Salgame P. Toll-like receptor 2 in host defense against Mycobacterium tuberculosis: to be or not to be-that is the question. *Curr Opin Immunol*. 2016 Oct;42:76-82. [PubMed](#)

Govindasamy K, **Jebiwott** S, Jaijyan DK, Davidow A, Ojo KK, Van Voorhis WC, Brochet M, Billker O, Bhanot P. Invasion of hepatocytes by Plasmodium sporozoites requires cGMP-dependent protein kinase and calcium dependent protein kinase 4. *Mol Microbiol*. 2016 Oct;102(2):349-363. [PubMed](#)

Guio K, Arinzeh TL. Bioengineering Models for Breast Cancer Research. *Breast Cancer (Auckl)*. 2016 Jan 13;9(Suppl 2):57-70. [PubMed](#)

Gupta S, **Laskar** N, Kadouri DE. Evaluating the Effect of Oxygen Concentrations on Antibiotic Sensitivity, Growth, and Biofilm Formation of Human Pathogens. *Microbiol Insights*. 2016 Nov 16;9:37-46. [PubMed](#)

Gupta S, Tang C, **Tran** M, Kadouri DE. Effect of Predatory Bacteria on Human Cell Lines. *PLoS One*. 2016 Aug 31;11(8):e0161242. [PubMed](#)

Haber YO, Chandler HK, Serrador JM. Symptoms Associated with Vestibular Impairment in Veterans with Posttraumatic Stress Disorder. *PLoS One*. 2016 Dec 29;11(12):e0168803. [PubMed](#)

Hao L, Sheng Z, Potian J, Deak A, Rohowsky-Kochan C, Routh VH. Lipopolysaccharide (LPS) and tumor necrosis factor alpha (TNF α) blunt the response of Neuropeptide Y/Agouti-related peptide (NPY/AgRP) glucose inhibited (GI) neurons to decreased glucose. *Brain Res*. 2016 Oct 1;1648(Pt A):181-192. [PubMed](#)

Henry EK, **Sy** CB, **Inclan-Rico** JM, **Espinosa** V, Ghanny SS, Dwyer DF, Soteropoulos P, Rivera A, Siracusa MC. Carbonic anhydrase enzymes regulate mast cell-mediated inflammation. *J Exp Med*. 2016 Aug 22;213(9):1663-73. [PubMed](#)

Huang GP, Molina A, Tran N, Collins G, Arinzeh TL. Investigating cellulose derived glycosaminoglycan mimetic scaffolds for cartilage tissue engineering applications. *J Tissue Eng Regen Med*. 2016 Sep 30. [PubMed](#)

Jain N, Lee EJ. Islet Endothelial Cells Derived From Mouse Embryonic Stem Cells. *Cell Transplant*. 2016;25(1):97-108. [PubMed](#)

Khader A, **Sherman** LS, Rameshwar P, Arinzech TL. Sodium Tungstate for Promoting Mesenchymal Stem Cell Chondrogenesis. *Stem Cells Dev.* 2016 Dec 15;25(24):1909-1918. [PubMed](#)

Kimani SG, **Kumar** S, **Davra** V, Chang YJ, **Kasikara** C, **Geng** K, **Tsou** WI, Wang S, Hoque M, Bohac A, Lewis-Antes A, De Lorenzo MS, Kotenko SV, Birge RB. Normalization of TAM post-receptor signaling reveals a cell invasive signature for Axl tyrosine kinase. *Cell Commun Signal.* 2016 Sep 6;14(1):19. [PubMed](#)

Kumar S, Birge RB. Efferocytosis. *Curr Biol.* 2016 Jul 11;26(13):R558-R559. [PubMed](#)

Li A, Yang Y, Miao M, **Chavda** KD, Mediavilla JR, Xie X, Feng P, Tang YW, Kreiswirth BN, Chen L, Du H. Complete Sequences of mcr-1-Harboring Plasmids from Extended-Spectrum- β -Lactamase- and Carbapenemase-Producing Enterobacteriaceae. *Antimicrob Agents Chemother.* 2016 Jun 20;60(7):4351-4. [PubMed](#)

Li D, **De S**, Li D, Song S, Matta B, Barnes BJ. Specific detection of interferon regulatory factor 5 (IRF5): A case of antibody inequality. *Sci Rep.* 2016 Aug 2;6:31002. [PubMed](#)

Liang L, Gu X, Zhao JY, Wu S, Miao X, Xiao J, Mo K, Zhang J, **Lutz** BM, Bekker A, Tao YX. G9a participates in nerve injury-induced Kcna2 downregulation in primary sensory neurons. *Sci Rep.* 2016 Nov 22;6:37704. [PubMed](#)

Lin HN, Cottrell J, O'Connor JP. Variation in lipid mediator and cytokine levels during mouse femur fracture healing. *J Orthop Res.* 2016 Nov;34(11):1883-1893. [PubMed](#)

Lin JD, Feng N, Sen A, Balan M, **Tseng** HC, **McElrath** C, Smirnov SV, **Peng** J, Yasukawa LL, Durbin RK, Durbin JE, Greenberg HB, Kotenko SV. Distinct Roles of Type I and Type III Interferons in Intestinal Immunity to Homologous and Heterologous Rotavirus Infections. *PLoS Pathog.* 2016 Apr 29;12(4):e1005600. [PubMed](#)

Mady LJ, **Ajibade** DV, Hsaio C, Teichert A, Fong C, Wang Y, Christakos S, Bikle DD. The Transient Role for Calcium and Vitamin D during the Developmental Hair Follicle Cycle. *J Invest Dermatol.* 2016 Jul;136(7):1337-1345. [PubMed](#)

Malik M, Mustaev A, Schwanz HA, **Luan** G, Shah N, Oppegard LM, de Souza EC, Hiasa H, Zhao X, Kerns RJ, Drlica K. Suppression of gyrase-mediated resistance by C7 aryl fluoroquinolones. *Nucleic Acids Res.* 2016 Apr 20;44(7):3304-16. [PubMed](#)

Marakalala MJ, Raju RM, Sharma K, Zhang YJ, Eugenin EA, Prideaux B, **Daudelin** IB, Chen PY, Booty MG, Kim JH, Eum SY, Via LE, Behar SM, Barry CE 3rd, Mann M, Dartois V, Rubin EJ. Inflammatory signaling in human tuberculosis granulomas is spatially organized. *Nat Med.* 2016 May;22(5):531-8. [PubMed](#)

Matlock-Colangelo L, **Colangelo** NW, Fenzl C, Frey MW, Baeumner AJ. Passive Mixing Capabilities of Micro- and Nanofibres When Used in Microfluidic Systems. *Sensors (Basel).* 2016 Aug 5;16(8). pii: E1238. doi: 10.3390/s16081238. [PubMed](#)

Mediavilla JR, Patrawalla A, Chen L, **Chavda** KD, Mathema B, Vinnard C, Dever LL, Kreiswirth BN. Colistin- and Carbapenem-Resistant Escherichia coli Harboring mcr-1

and blaNDM-5, Causing a Complicated Urinary Tract Infection in a Patient from the United States. *MBio*. 2016 Aug 30;7(4). pii: e01191-16. [PubMed](#)

Myers CE, Kostek JA, **Ekeh B**, **Sanchez R**, Ebanks-Williams Y, Kruszniak AL, Weinfeld N, Servatius RJ. Watch what I do, not what I say I do: Computer-based avatars to assess behavioral inhibition, a vulnerability factor for anxiety disorders. *Comput Human Behav*. 2016 Feb 1;55 Pt B:804-816. [PubMed](#)

Ornelas IM, **McLane LE**, Saliu A, **Evangelou AV**, **Khandker L**, Wood TL. Heterogeneity in oligodendroglia: Is it relevant to mouse models and human disease? *J Neurosci Res*. 2016 Dec;94(12):1421-1433. [PubMed](#)

Patel JS, **Hu M**, **Sinha G**, **Walker ND**, **Sherman LS**, Gallagher A, Rameshwar P. Non-coding RNA as mediators in microenvironment-breast cancer cell communication. *Cancer Lett*. 2016 Sep 28;380(1):289-95. [PubMed](#)

Patel V, Patel AM, McArdle JJ. Synaptic abnormalities of mice lacking toll-like receptor (TLR)-9. *Neuroscience*. 2016 Jun 2;324:1-10. [PubMed](#)

Proddutur A, Santhakumar V. Fingerprints of Interictal Spikes: Can Imprints Deliver a Verdict on Their Role in Epilepsy? *Epilepsy Curr*. 2016 Jan-Feb;16(1):41-2. [PubMed](#)

Radford F, Tyagi S, Gennaro ML, Pine R, Bushkin Y. Flow Cytometric Characterization of Antigen-Specific T Cells Based on RNA and Its Advantages in Detecting Infections and Immunological Disorders. *Crit Rev Immunol*. 2016;36(5):359-378. [PubMed](#)

Ragunath C, DiFranco K, Shanmugam M, Gopal P, Vyas V, Fine DH, Cugini C, Ramasubbu N. Surface display of Aggregatibacter actinomycetemcomitans autotransporter Aae and dispersin B hybrid act as antibiofilm agents. *Mol Oral Microbiol*. 2016 Aug;31(4):329-39. [PubMed](#)

Saleh S, **Yarossi M**, Manuweera T, Adamovich S, Tunik E. Network interactions underlying mirror feedback in stroke: A dynamic causal modeling study. *Neuroimage Clin*. 2016 Nov 21;13:46-54. [PubMed](#)

Saleh T, Jankowski W, **Sriram G**, Rossi P, Shah S, Lee KB, Cruz LA, Rodriguez AJ, Birge RB, Kalodimos CG. Cyclophilin A promotes cell migration via the Abl-Crk signaling pathway. *Nat Chem Biol*. 2016 Feb;12(2):117-23. [PubMed](#)

Santiago AM, Clegg DJ, Routh VH. Ventromedial hypothalamic glucose sensing and glucose homeostasis vary throughout the estrous cycle. *Physiol Behav*. 2016 Dec 1;167:248-254. [PubMed](#)

Santiago AM, Clegg DJ, Routh VH. Estrogens modulate ventrolateral ventromedial hypothalamic glucose-inhibited neurons. *Mol Metab*. 2016 Aug 20;5(10):823-33. [PubMed](#)

Saxena D, Spino M, Tricta F, Connelly J, Cracchiolo BM, Hanauske AR, D'Alliessi Gandolfi D, Mathews MB, Karn J, Holland B, Park MH, Pe'ery T, Palumbo PE, Hanauske-Abel HM. Drug-Based Lead Discovery: The Novel Ablative Antiretroviral Profile of Deferiprone in HIV-1-Infected Cells and in HIV-Infected Treatment-Naive

Subjects of a Double-Blind, Placebo-Controlled, Randomized Exploratory Trial. *PLoS One*. 2016 May 18;11(5):e0154842. [PubMed](#)

Sharma N, Colangelo NW, de Toledo SM, Azzam EI. Diffusible Factors Secreted by Glioblastoma and Medulloblastoma Cells Induce Oxidative Stress in Bystander Neural Stem Progenitors. *ASN Neuro*. 2016 Aug 9;8(4). pii: 1759091416662808. [PubMed](#)

Shatzkes K, Singleton E, Tang C, Zuena M, Shukla S, Gupta S, Dharani S, Onyile O, Rinaggio J, Connell ND, Kadouri DE. Predatory Bacteria Attenuate Klebsiella pneumoniae Burden in Rat Lungs. *MBio*. 2016 Nov 8;7(6). pii: e01847-16. [PubMed](#)

Sheynin J, Moustafa AA, Beck KD, Servatius RJ, Casbolt PA, Haber P, Elsayed M, Hogarth L, Myers CE. Exaggerated acquisition and resistance to extinction of avoidance behavior in treated heroin-dependent men. *J Clin Psychiatry*. 2016 Mar;77(3):386-94. [PubMed](#)

Skop NB, Calderon F, Cho CH, Gandhi CD, Levison SW. Optimizing a multifunctional microsphere scaffold to improve neural precursor cell transplantation for traumatic brain injury repair. *J Tissue Eng Regen Med*. 2016 Oct;10(10):E419-E432. [PubMed](#)

Sun L, **Lutz BM**, Tao YX. The CRISPR/Cas9 system for gene editing and its potential application in pain research. *Transl Perioper Pain Med*. 2016;1(3):22-33. [PubMed](#)

Sy CB, Siracusa MC. The Therapeutic Potential of Targeting Cytokine Alarmins to Treat Allergic Airway Inflammation. *Front Physiol*. 2016 Jun 14;7:214. [PubMed](#)

Tasker C, Subbian S, Gao P, **Couret J**, **Levine C**, Ghanny S, Soteropoulos P, Zhao X, Landau N, Lu W, Chang TL. IFN- ϵ protects primary macrophages against HIV infection. *JCI Insight*. 2016 Dec 8;1(20):e88255. [PubMed](#)

Tsolaki IN, Tonsekar PP, Najafi B, Drew HJ, Sullivan AJ, Petrov SD. Comparison of Osteotome and Conventional Drilling Techniques for Primary Implant Stability: An In Vitro Study. *J Oral Implantol*. 2016 Aug;42(4):321-5. [PubMed](#)

Velasquez S, Malik S, Lutz SE, Scemes E, Eugenin EA. Pannexin1 Channels Are Required for Chemokine-Mediated Migration of CD4⁺ T Lymphocytes: Role in Inflammation and Experimental Autoimmune Encephalomyelitis. *J Immunol*. 2016 May 15;196(10):4338-47. [PubMed](#)

Veldurthy V, **Wei R**, Campbell M, Lupicki K, Dhawan P, Christakos S. 25-Hydroxyvitamin D₃ 24-Hydroxylase: A Key Regulator of 1,25(OH)₂ D₃ Catabolism and Calcium Homeostasis. *Vitam Horm*. 2016;100:137-50. [PubMed](#)

Veldurthy V, **Wei R**, Oz L, Dhawan P, **Jeon YH**, Christakos S. Vitamin D, calcium homeostasis and aging. *Bone Res*. 2016 Oct 18;4:16041. [PubMed](#)

Velisetty P, Borbiro I, Kasimova MA, **Liu L**, **Badheka D**, Carnevale V, Rohacs T. A molecular determinant of phosphoinositide affinity in mammalian TRPV channels. *Sci Rep*. 2016 Jun 13;6:27652. [PubMed](#)

Walker ND, Patel J, Munoz JL, Hu M, Guiro K, Sinha G, Rameshwar P. The bone marrow niche in support of breast cancer dormancy. *Cancer Lett.* 2016 Sep 28;380(1):263-71. [PubMed](#)

Yu H, Qu F, Shan B, Huang B, Jia W, Chen C, Li A, Miao M, Zhang X, Bao C, Xu Y, **Chavda** KD, Tang YW, Kreiswirth BN, Du H, Chen L. Detection of the mcr-1 Colistin Resistance Gene in Carbapenem-Resistant Enterobacteriaceae from Different Hospitals in China. *Antimicrob Agents Chemother.* 2016 Jul 22;60(8):5033-5. [PubMed](#)

Yu J, **Proddutur A, Swietek B,** Elgammal FS, Santhakumar V. Functional Reduction in Cannabinoid-Sensitive Heterotypic Inhibition of Dentate Basket Cells in Epilepsy: Impact on Network Rhythms. *Cereb Cortex.* 2016 Oct 17;26(11):4229-4314. [PubMed](#)

Yu J, **Swietek B, Proddutur A,** Santhakumar V. Dentate cannabinoid-sensitive interneurons undergo unique and selective strengthening of mutual synaptic inhibition in experimental epilepsy. *Neurobiol Dis.* 2016 May;89:23-35. [PubMed](#)

Yudin Y, **Lutz B,** Tao YX, Rohacs T. Phospholipase C $\delta 4$ regulates cold sensitivity in mice. *J Physiol.* 2016 Jul 1;594(13):3609-28. [PubMed](#)

Zhang J, Liang L, Miao X, Wu S, Cao J, Tao B, Mao Q, Mo K, Xiong M, **Lutz BM,** Bekker A, Tao YX. Contribution of the Suppressor of Variegation 3-9 Homolog 1 in Dorsal Root Ganglia and Spinal Cord Dorsal Horn to Nerve Injury-induced Nociceptive Hypersensitivity. *Anesthesiology.* 2016 Oct;125(4):765-78. [PubMed](#)

Zuo W, **Zhang Y,** Xie G, **Gregor D,** Bekker A, Ye JH. Serotonin stimulates lateral habenula via activation of the post-Synaptic serotonin 2/3 receptors and transient receptor potential channels. *Neuropharmacology.* 2016 Feb;101:449-59. [PubMed](#)