

Publications List of the Pharmacology EM facility since 2011

PI names highlighted in yellow

Papers highlighted in grey originate from labs with PIs and trainees lacking EM expertise, depending on technician support to get the work done

Papers Published

1. Michal Wieczorek, Joseph Tcherkezian, Cynthia Bernier, Andrea E. Prota, Sami Chaaban, Yannève Rolland, Claude Godbout, Mark A. Hancock, Joseph C. Arezzo, Ozhan Ocal, Cecilia Rocha, Natacha Olieric, Anita Hall, Hui Ding, Alexandre Bramoullé, Matthew G. Annis, George Zogopoulos, Patrick G. Harran, Thomas M. Wilkie, Rolf A. Brekken, Peter M. Siegel, Michel O. Steinmetz, Gordon C. Shore, Gary Brouhard, Anne Roulston (2016) The synthetic diazonamide DZ-2384 has distinct effects on microtubule curvature and dynamics without neurotoxicity. **Science Translational Medicine**, 8, 365ra159.
2. Penney J, Tsurudome K, Liao EH, Kauwe G, Gray L, Yanagiya A, R. Calderon M, Sonenberg N, Haghghi AP (2016) LRRK2 regulates retrograde synaptic compensation at the Drosophila neuromuscular junction. **Nature Communications** 7:12188.
3. Zhou TE, Rivera JC, Bhosle VK, Lahaie I, Shao Z, Tahiri H, Zhu T, Polosa A, Dorfman A, Beaudry-Richard A, Costantino S, Lodygensky GA, Lachapelle P, Chemtob S. (2016) Choroidal Involution Is Associated with a Progressive Degeneration of the Outer Retinal Function in a Model of Retinopathy of Prematurity: Early Role for IL-1 β . **Am J Pathol**. Oct 18. pii: S0002-9440(16)30358-3.
4. V. K. Bhosle, J. C. Rivera, T. Zhou, R. Omri, M. Sanchez, D. Hamel, T. Zhu, R. Rouget, A. A. Rabea, X. Hou, I. Lahaie, A. Ribeiro-da-Silva, and S. Chemtob. Nuclear localization of platelet-activating factor receptor controls retinal neovascularization. **Cell Discovery**, 2, 16017; doi:10.1038/celldisc.2016.17, 2016
5. K. Vincent, V. M. Cornea, Y. J. Jong, A. Laferriere, N. Kumar, A. Mickeviciute, J. S. Fung, P. Bandegi, A. Ribeiro-da-Silva, K. L. O'Malley, and T. J. Coderre. Intracellular mGluR5 plays a critical role in neuropathic pain. **Nature Communications**. 7:10604, 2016.
6. Poirier S, Hamouda HA, Villeneuve L, Demers A, Mayer G (2016) Trafficking Dynamics of PCSK9-Induced LDLR Degradation: Focus on Human PCSK9 Mutations and C-Terminal Domain. **PLoS One** Jun 9;11 (6):e0157230
7. Prade E, Barucker C, Sarkar R, Althoff-Ospelt G, Lopez del Amo JM, Hossain S, Zhong Y, Multhaup G, Reif B Sulindac Sulfide Induces the Formation of Large Oligomeric Aggregates of the Alzheimer's Disease Amyloid- β Peptide Which Exhibit Reduced Neurotoxicity. **Biochemistry**. 2016 Mar 29;55 (12):1839-49
8. H. Petitjean, S. A. Pawlowski, S. L. Fraine, B. Sharif, D. Hamad, T. Fatima, J. Berg, C. M. Brown, L. Y. Jan, A. Ribeiro-da-Silva, J. M. Braz, A. I. Basbaum, and R. Sharif-Naeini. Dorsal horn parvalbumin neurons are gatekeepers of touch-evoked pain after nerve injury. **Cell Reports**. 13 (6):1246-1257, 2015.
9. Steve Poirier, Maya Mamarbachi, Wan-Ting Chen, Amy S. Lee, Gaetan Mayer (2015) GRP94 Regulates Circulating Cholesterol Levels through Blockade of PCSK9-Induced LDLR Degradation **Cell Reports**. Dec 15;13(10):2064-71
10. Barucker C, Bittner HJ, Chang PK, Cameron S, Hancock MA, Liebsch F, Hossain S, Harmeier A, Shaw H, Charron FM, Gensler M, Dembny P, Zhuang W, Schmitz D, Rabe JP, Rao Y, Lurz R, Hildebrand PW, McKinney RA, Multhaup G. A β 42-oligomer Interacting Peptide (AIP) neutralizes toxic amyloid- β 42 species and protects synaptic structure and function. **Sci Rep**. 2015 Oct 29;5:15410
11. J. S. Joyal, S. Nim, T. Zhu, N. Sitaras, J. C. Rivera, Z. Shao, P. Sapieha, D. Hamel, M. Sanchez, K. Zaniolo, M. St-Louis, J. Ouellette, M. Montoya-Zavala, A. Zabeida, E. Picard, P. Hardy, V. Bhosle, D. R. Varma, F. Gobeil,

- Jr., C. Beausejour, C. Boileau, W. Klein, M. Hollenberg, A. Ribeiro-da-Silva, G. Andelfinger, and S. Chemtob. (2014). Subcellular localization of coagulation factor II receptor-like 1 in neurons governs angiogenesis. **Nature Medicine**. 20(10): 1165-1173.
12. Lorenzo L E, Godin A, Wang F, St. Louis M, Carbonetto S, Wiseman P W, Ribeiro-da-Silva A, De Koninck Y. (2014). Gephyrin clusters are absent from small diameter primary afferent terminals despite the presence of GABA_A receptors. **Journal of Neuroscience**. 34(24): 8300-8317.
 13. Perry MC; Dufour CR; Eichner LJ; Tsang DW; Deblois G; Muller WJ; Giguere V. (2014) ERBB2 deficiency alters an E2F-1-dependent adaptive stress response and leads to cardiac dysfunction. **Molecular & Cellular Biology**. 34(23):4232-43.
 14. Pawlowski SA , Gaillard S , Ghorayeb I , Ribeiro-da-Silva A , Schlichter R , Cordero-Erausquin M. (2013). A novel population of cholinergic neurons in the macaque spinal dorsal horn of potential clinical relevance for pain therapy. **Journal of Neuroscience**. 33(9): 3727-3737.
 15. S. Favret, F. Binet, E. Lapalme, D. Leboeuf, J. Carbadillo, T. Rubic, E. Picard, G. Mawambo, N. Tetreault, J-S Joyal, S. Chemtob, F. Sennlaub, J. P. SanGiovanni, M. Guimond, P. Sapieha (2013) Deficiency in the metabolite receptor SUCNR1 (GPR91) leads to outer retinal lesions. **Aging** 5(6): 427–444.
 16. Deane, E.C., Ilie, A.E., Sizdahkhani, S., Das Gupta, M., Orłowski, J., McKinney, R. A (2013) Enhanced recruitment of endosomal Na⁺/H⁺ exchanger NHE6 into dendritic spines of hippocampal pyramidal neurons during NMDA receptor-dependent long-term potentiation. **Journal of Neuroscience** 33(2):595-610.
 17. Omri S; Behar-Cohen F; Rothschild PR; Gelize E; Jonet L; Jeanny JC; Omri B; Crisanti P. (2013) PKCzeta mediates breakdown of outer blood-retinal barriers in diabetic retinopathy. **PLoS ONE** 8(11):e81600
 18. LeSimple P1, Goepf J, Palmer ML, Fahrenkrug SC, O'Grady SM, Ferraro P, Robert R, Hanrahan JW. (2013) Cystic Fibrosis Transmembrane Conductance Regulator Is Expressed in Mucin Granules from Calu-3 and Primary Human Airway Epithelial Cells. **Am J Respir Cell Mol Biol** Oct; 49(4):511-6.
 19. Sirois I; Groleau J; Pallet N; Brassard N; Hamelin K; Londono I; Pshezhetsky AV; Bendayan M; Hebert MJ.(2012) Caspase activation regulates the extracellular export of autophagic vacuoles. **Autophagy**. 8(6):927-37
 20. Saeed AW, Ribeiro-da-Silva A. (2012). Non-peptidergic primary afferents are presynaptic to neurokinin-1 receptor immunoreactive lamina I projection neurons in rat spinal cord. **Molecular Pain**. 8: 64.
 21. Allard S, Leon WC, Pakavathkumar P, Bruno MA, Ribeiro-da-Silva A, Cuello AC (2012) Impact of the NGF maturation and degradation pathway on the cortical cholinergic system phenotype. **Journal of Neuroscience** 32(6):2002-2012.
 22. N.C.Chang, M.Nguyen, J.Bourdon, P.A.Risse, J.Martin, G.Danialou, R.Rizzuto, B.J.Petrof, G.C.Shore (2012) Bcl-2-associated autophagy regulator Naf-1 required for maintenance of skeletal muscle. **Hum. Mol. Genet.** 21 (2012) 2277-2287.
 23. Hossain S, de la Cruz-Morcillo MA, Parkinson D, Mushynski WE and Almazan G. (2012) Mitogen-activated protein kinase p38 regulates Krox-20 to direct Schwann cell differentiation and peripheral myelination. **Glia** 60:1130-44.
 24. Xiao WH, Zheng H, Bennett GJ. Oxaliplatin-evoked painful peripheral neuropathy: Evidence for a mitotoxic effect in primary afferent neurons. **Neuroscience** 2012; 203: 194-206.
 25. Zheng, H, Xiao WH, Bennett GJ. Mitotoxicity and bortezomib-induced chronic painful peripheral neuropathy. **Exptl Neurol** 2012; 238: 225-234.
 26. Balghi H, Robert R, Rappaz B, Zhang X, Wohlhuter-Haddad A, Evagelidis A, Luo Y, Goepf J, Ferraro P, Roméo P, Trebak M, Wiseman PW, Thomas DY, Hanrahan JW (2011) Enhanced Ca²⁺ entry due to Orai1 plasma membrane insertion increases IL-8 secretion by cystic fibrosis airways. **FASEB J**. 25: 4274-4291.

27. **Bennett, GJ**, Liu GK, Xiao WH, Jin HW, Siau C. (2011). Terminal arbor degeneration (TAD): a novel lesion produced by the chemotherapeutic agent, paclitaxel. **Eur J Neurosci** 33: 1667-1676.
28. Godin AG, Costantino S, Lorenzo LE, Swift JL, Sergeev M, **Ribeiro-da-Silva A**, De Koninck Y, Wiseman PW (2011). Revealing protein oligomerization and densities in situ using spatial intensity distribution analysis. **Proc Natl Acad Sci USA** 108(17):7010-7015.
29. Xiao WH, Zheng H, Zheng FY, Nuydens, R, Meert TF, **Bennett GJ**. Mitochondrial abnormality in sensory, but not motor, axons in paclitaxel-evoked painful peripheral neuropathy in the rat. **Neuroscience** 2011; 199: 461-469.

Book chapters

1. V. K. Bhosle, F. Gobeil, Jr., J. C. Rivera, **A. Ribeiro-da-Silva**, and **S. Chemtob** (2015) High resolution imaging and function of nuclear G protein-coupled receptors (GPCRs). In: Nuclear G-Protein Coupled Receptors, edited by B. G. Allen and T. E. Hébert, New York: Springer Science, p. 81-97.
2. **A. Ribeiro-da-Silva** (2014) Substantia gelatinosa of the spinal cord. In: The Rat Nervous System, 4th edition, edited by G. Paxinos, San Diego: Elsevier Academic Press, p. 97-114.
3. **A. Ribeiro-da-Silva** and B.Y. Cooper (2014) Nociceptors in the Orofacial Region (Skin/Mucosa). In: Encyclopaedia of Pain, edited by R.F. Schmidt and G.F. Gebhart, Berlin: Springer-Verlag.

Abstracts

1. Petitjean H, Pawlowski S, Davidova A , **Ribeiro-da-Silva A** , **Sharif Naeini R**. (2014). Three-dimensional reconstruction of synaptic relationship between interneurons of dorsal horn of the spinal cord. Society for Neuroscience Meeting Abstracts, Washington, United States
2. V. M. Cornea, Y. I. Jong, **A. Ribeiro-da-Silva**, K. L. O'Malley, **T. J. Coderre** (2014) A functional role of nuclear metabotropic receptor 5 (mGluR5) in neuropathic pain: anatomical and biochemical evidence. Abstracts 15th World Congress of Pain 2014. (Abstract)
3. Allard, S., **Ribeiro-da-Silva, A.**, and **Cuello, A. C.** (2012) The role of nerve growth factor's extracellular metabolism on the basal forebrain cholinergic system phenotype. Soc.Neurosci.Abst. Program No. 621.03. 2012 Neuroscience Meeting Planner. New Orleans, LA.
4. Balghi H, Liu B, Evagelidis A, Thomas DY and **Hanrahan JW** 2011. Increased store-operated calcium entry through Ora1 enhances proliferation of CF airway epithelial cells. Ped Pulmonol. Suppl. 34 NACFC, Anaheim, USA, November 3-5.
5. Balghi H, Robert R, Rappaz B, Zhang X, Wohlhuter-Haddad A, Evagelidis A, Luo Y, Goepp J, Ferraro P, Roméo P, Trebak M, Wiseman P, **Thomas DY** and **Hanrahan JW** 2011. Enhanced store-operated Ca²⁺ entry due to Ora1 plasma membrane insertion increases IL-8 secretion by cystic fibrosis airway cells. 1st international meeting on Ion Channel Signaling Mechanisms: From Basic Science to Clinical Application, Oct 31st- Nov 4th, Marrakesh, Morocco.
6. **Bendayan, M**. Gastric leptin: From Immunocytochemistry to clinical application. 14th International Congress of Histochemistry and Cytochemistry Opening Lecture David Glick Award. Kyoto 2012 p. 18. LECTURE
7. Shao Z, Dorfman A, Polosa A, Joyal J-S, Hardy P, Lachapelle P, **Chemtob S**. Progressive Central Photoreceptor damages and Retinal Pigment Epithelium Abnormalities in Oxygen Induced Retinopathy. ARVO, 2012.

8. Cammisotto, P. and M. Bendayan. Exocrine secretion of leptin by the gastric mucosa and its physiological functions. Centre du Diabete Montreal Janvier 2012.
9. Cammisotto, P., Levy, E. and M. Bendayan. Gastric leptin: Secretion, absorption and putative physiological functions. Meeting of The Histochemical Society Woods Hole 2011.
10. Cammisotto, P., Levy, E. and M. Bendayan. Gastric leptin: Secretion, absorption and putative physiological functions. Diabète Québec, Novembre 2011.
11. Cammisotto, P. and M. Bendayan. Activation of the brown adipose tissue upon administration of leptin. The Histochemical Society: P24 p.34, 2012
12. Orłowski, J., Contributions of Organellar-Type Alkali Cation/Proton Exchangers to Cellular Homeostasis. Frontiers in Epithelial Transport 2011, Yonsei University, Seoul, Republic of Korea, April 14-16, 2011.
13. Orłowski, J., Novel Regulators of the Neural-enriched Na⁺/H⁺ Exchanger NHE5, 6th International Conference on Na⁺/Ca²⁺ Exchange 2011, Lacco Ameno, Naples, Italy, October 1-5, 2011.