# 2015 Anatomy & Cell Biology
# Publications, Conferences and Book Chapters

## Table of Contents

## AUTEXIER, Chantal

*Rousseau*, *P*. and **Autexier**, **C**. (2015). Telomere biology: Rationale for diagnostics and therapeutics in cancer. *RNA Biology*; 12(10):1078-1082. doi: 10.1080/15476286.2015.1081329.

Spinella, J.F., Cassart, P., Garnier, N., *Rousseau*, *P*., Drullion, C., Richer, C., Ouimet, M., Vidal, R., Saillour, V., Healy, J., **Autexier**, **C**. and Daniel Sinnett. (2015). A novel somatic mutation in TPP1 induces telomere lengthening and apoptosis resistance in leukemia cells. *BMC Cancer*; 15:621. doi: 10.1186/s12885-015-1639-5.

## BLASCHUK, Orest W.

Mrozik, K.M., Cheong, C.M., Hewett, D., Chow, A.W.S., **Blaschuk**, **O**.**W**., Zannettino, A.C.W. and Vandyke, K. (2015). Therapeutic targeting of N-cadherin is an effective treatment for multiple myeloma. *British Journal of Haematology*; 171(3):387-399. doi: 10.1111/bjh.13596.

## BUI, Khanh Huy

Gaik, M., Flemming, D., von Appen, A., Kastritis, P., Muecke, N., Fischer, J., Stelter, P., Ori, A., **Bui**, **K**.**H**., Bassler, J., Barbar, E., Beck, M. and Hurt, E. (2015). Structural basis for assembly and function of the Nup82 complex in the nuclear pore scaffold. *Journal of Cell Biology;* 208(3):283-297. doi: 10.1083/jcb.201411003.

Maheshwari, A., Obbineni, J.M., **Bui**, **K**.**H**., Shibata, K., Toyoshima, Y. and Ishikawa, T. (2015). α- and β-tubulin lattice arrangement of the axonemal microtubule doublet and binding proteins revealed by single particle cryo-electron microscopy and tomography. *Structure*; 23(9):1584-1595. doi: 10.1016/j.str.2015.06.017.

von Appen, A., Kosinski, J., Sparks, L., Ori, A., DiGuilio, A.L., Vollmer, B., Mackmull, M., Banterle, N., Parca, L., Buczak, K., Mosalaganti, S., Hagen, W., Andres-Pons, A., Lemke, E.A., Bork, P., Antonin, W., Glavy, J.S., **Bui**, **K**.**H**.* and Beck, M.* (2015). In situ structural analysis of the human nuclear pore complex. *Nature*; 526:140-143. (*Shared corresponding authors). doi: 10.1038/nature15381.

## DAVID, Samuel

Anderson, W.D., Makadia, H.K., Greenhalgh, A.D., Schwaber, J.S., **David**, **S**. and Vadigepalli, R. (2015). Computational modeling of cytokine signaling in microglia. *Molecular BioSystems*; 11(12):3332-3346. doi: 10.1039/c5mb00488h.

**David**, **S**., Greenhalgh, A.D. and Kroner, A. (2015). Macrophage and microglial plasticity in the injured spinal cord. *Neuroscience*; 307:311-318. doi: 10.1016/j.neuroscience.2015.08.064.

Jiang, R., Hua, C., Wan, Y., Jiang, B., Hu, H., Zheng, J., Fuqua, B.K., Dunaief, J.L., Anderson, G.J., **David**, **S**., Vulpe, C.D. and Chen, H. (2015). Hephaestin and ceruloplasmin play distinct but interrelated roles in iron homeostasis in mouse brain. *Journal of Nutrition*; 145(5):1003-1009. doi: 10.3945/jn.114.207316.

Kwon, B.K., Streijger, F., Hill, C.E., Anderson, A.J., Bacon, M., Beattie, M.S., Blesch, A., Bradbury, E.J., Brown, A., Bresnahan, J.C., Case, C.C., Colburn, R.W., **David**, **S**., Fawcett, J.W., Ferguson, A.R., Fischer, I., Floyd, C.L., Gensel, J.C., Houle, J.D., Jakeman, L.B., Jeffery, N.D., Jones, L.A., Kleitman, N., Kocsis, J., Lu, P., Magnuson, D.S., Marsala, M., Moore, S.W., Mothe, A.J., Oudega, M., Plant, G.W., Rabchevsky, A.S., Schwab, J.M., Silver, J., Steward, O., Xu, X.M., Guest, J.D. and Tetzlaff, W. (2015). Large animal and primate models of spinal cord injury for the testing of novel therapies. *Experimental Neurology*; 269:154-168. doi: 10.1016/j.expneurol.2015.04.008.

Lim, T.K., Shi, X.Q., Johnson, J.M., Rone, M.B., Antel, J.P., **David**, **S**. and Zhang, J. (2015). Peripheral nerve injury induces persistent vascular dysfunction and endoneurial hypoxia, contributing to the genesis of neuropathic pain. *Journal of Neuroscience*; 35(8):3346-3359. doi: 10.1523/jneurosci.4040-14.2015.

Siqueira Mietto, B., Kroner, A., Girolami, E.I., Santos-Nogueira, E., Zhang, J. and **David**, **S**. (2015). Role of IL-10 in Resolution of Inflammation and Functional Recovery after Peripheral Nerve Injury. *Journal of Neuroscience*; 35(50):16431-442. doi: 10.1523/jneurosci.2119-15.2015.

Zarruk, J.G., Berard, J.L., Passos Dos Santos, R., Kroner, A., Lee, J., Arosio, P. and **David**, **S**. (2015). Expression of iron homeostasis proteins in the spinal cord in experimental autoimmune encephalomyelitis and their implications for iron accumulation. *Neurobiology of Disease*; 81:93-107. doi: 10.1016/j.nbd.2015.02.001.

## Presentations

March 16, 2015 — "Targeting inflammation in spinal cord injury." 16th Annual Neuroscience Research Day, organized by the Neuroscience Graduate Students' Association. University of Alberta, Edmonton, Alberta. (Keynote Speaker).

March 30, 2015 — Symposium on Spinal Cord Injury; Experimental Biology 2015, Boston, Massachusetts, U.S.A. (Invited Speaker).

September 25, 2015 — "Role of iron in pathogenesis and repair in MS and EAE." endMS Atlantic RRTC Annual Research Retreat. Memorial University, St. John's, Newfoundland. Keynote Speaker.

November 13, 2015 — "Role of iron in nervous damage and repair." (Recipient of the Barbara Turnbull Award for Spinal Cord Research).14th Annual Charles Tator Barbara-Turnbull Symposium. Tremble Conference Centre for Neurodegenerative Disease. Toronto Western Hospital, Toronto, Ontario. (Invited Speaker).

November 29, 2015 — "Blocking TNF and a kinase that regulates TNF expression improves outcome after SCI." 1st Spinal Cord Injury Conference (SCiS), Lisbon, Portugal. (Invited Plenary Speaker).

## Patents

US Patent Awarded – Treatment of Neural Diseases or Condition; D. Radzioch, **S. David**, R. Lopez-Vales, T. Skinner; # 9,050,294 B2. June 9, 2015.

## DAVIS, Elaine

Dabovic, B., Robertson, I.B., Zilberberg, L., Vassallo, M., **Davis**, **E.C**. and Rifkin, D.B. (2015). Function of latent TGFβ binding protein 4 and fibulin 5 in elastogenesis and lung development. *Journal of Cellular Physiology*; 230(1):226-236. doi: 10.1002/jcp.24704.

Hinderer, S., Shen, N., Ringuette, L.J., Hansmann, J., Reinhardt, D.P., Brucker, S., **Davis**, **E.C**. and Schenke-Layland, K. (2015). In vitro elastogenesis – Instructing human vascular smooth muscle cells to generate an elastic fiber-containing extracellular matrix scaffold. *Biomedical Materials*; 10(3):034102. doi: 10.1088/1748-6041/10/3/034102.

Mofarrahi, M., McClung, J.M., Kontos, C.D., **Davis**, **E.C.,** Tappuni, B., Moroz, N., Pickett, A.E., Huck, L., Harel, S., Daniolou, G. and Hussain, S.N.A. (2015). Angiopoietin-1 enhances skeletal muscle regeneration in mice. *American Journal of Physiology – Regulatory, Integrative and Comparative Physiology;* 308(7):R576-R589. doi: 10.1152/ajpregu.00267.2014.

Papke, C.L., Tsunezumi, J. Ringuette, L.J., Nagaoka, H., Terajima, M., Yamashiro, Y., Urquhart, G., Yamauchi, M., **Davis**, **E.C**. and Yanagisawa, H. (2015). Loss of fibulin-4 disrupts collagen synthesis and maturation: Implications for pathology resulting from *EFEMP2* mutations. *Human Molecular Genetics*; 24(20):5867-5879. doi: 10.1093/hmg/ddv308.

Su, C.-T., Huang, J.-W., Chiang, C.-K., Lawrence, E.C., Levine, K.L., Dabovic, B., Jung, C., **Davis**, **E.C**., Madan-Khetarpal, S. and Urban, Z. (2015). Latent transforming growth factor binding protein 4 regulates transforming growth factor beta receptor stability. *Human Molecular Genetics*; 24(14):4024-4036. doi: 10.1093/hmg/ddv139.

Wang, Y., Zeinali-Davarani, S., **Davis**, **E.C**. and Zhang, Y. (2015). Effect of glucose on the biomechanical function of arterial elastin. *Journal of the Mechanical Behavior of Biomedical Materials.*; 49:244-254. doi: 10.1016/j.jmbbm.2015.04.025.

Yamashiro, Y., Papke, Kim, J., Ringuette, L.J., Zhang, Q.-J., Liu, Z.-P., Mirzaei, H., Wagenseil, J.E., **Davis**, **E.C**. and Yanagisawa, H. (2015). Abnormal mechanosensing and cofilin activation promote the progression of ascending aortic aneurysms in mice. *Science Signaling*; 8(399):ra105. doi: 10.1126/scisignal.aab3141.

## Presentations

July 26-31, 2015 Gordon Research Seminar on Elastin, Elastic Fibers & Microfibrils. University of New England, Maine, U.S.A. (Invited Speaker).

## HERMO, Louis

Au, C.E., Hermo, L., Byrne, E., Smirle, J., Fazel, A., Kearney, R.E., Smith, C.E., Vali, H., Fernandez-Rodriguez, J., Simon, P.H., Mandato, C., Nilsson, T., Bergeron, J.J. (2015). Compartmentalization of membrane trafficking, glucose transport, glycolysis, actin, tubulin and the proteasome in the cytoplasmic droplet/Hermes body of epididymis sperm. *Open Biology*; 5:150080. doi: 10.1098/rsob.150080.

Au, C.E., Hermo, L., Byrne, E., Smirle, J., Fazel, A., Simon, P.H., Kearney, R.E., Cameron, P.H., Smith, C.E., Vali, H., Fernandez-Rodriguez, J., Ma, K., Nilsson, T. and Bergeron, J.J. (2015). Expression, sorting, and segregation of Golgi proteins during germ cell differentiation in the testis. *Molecular Biology of the Cell*; 26(22):4015-4032. doi: 10.1091/mbc.E14-12-1632.

Hess, R.A., Hermo, L., Robaire, B. (2015). Lessons learned in Andrology: Yves Clermont, an interview by Lonnie D. Russell. *Andrology*; 3(6):1015-1021. doi: 10.1111/andr.12115.

Mandon, M., **Hermo**, **L**. and Cyr, D.G. (2015). Isolated Rat Epididymal Basal Cells Share Common Properties with Adult Stem Cells. *Biology of Reproduction*; 93(5):115. doi: 10.1095/biolreprod.115.133967.

## KENNEDY, Timothy

Beamish, I.V. and **Kennedy**, **T.E.** (2015). Robo3: The Road Taken. *Developmental Cell*; 32(1):3-4. doi: 10.1016/j.devcel.2014.12.021.

Bin, J.M., Han, D., Lai Wing Sun, K., Croteau, L.P., Dumontier, E., Cloutier, J.F., Kania, A. and **Kennedy**, **T.E.** (2015). Complete loss of netrin-1 results in embryonic lethality and severe axon guidance defects without increased neural cell death. *Cell Reports*; 12(7):1099-1106. doi: 10.1016/j.celrep.2015.07.028.

DeGeer, J., Kaplan, A., Mattar, P., Morabito, M., Stochaj, U., **Kennedy**, **T.E.**, Debant, A., Michel, C., Fournier, A.E. and Lamarche-Vane, N. (2015). Hsc70 chaperone activity underlies Trio GEF function in axon growth and guidance induced by netrin-1. *Journal of Cell Biology*; 210(5): 817-332. doi: 10.1083/jcb.201505084.

Godin, A.G., Rappaz, B., Potvin-Trottier, L., **Kennedy**, **T.E.**, De Koninck, Y. and Wiseman, P.W. (2015). Spatial intensity distribution analysis reveals abnormal oligomerization of proteins in single cells. *Biophysical Journal*; 109(4):710-721. doi: 10.1016/j.bpj.2015.06.068.

Podjaski, C., Alvarez, J.I., Bourbonniere, L., Larouche, S., Terouz, S., Bin, J.*, Lecuyer, M.A., Saint-Laurent, O., Larochelle, C., Darlington, P., Arbour, N., Antel, J.P., **Kennedy**, **T.E.** and Prat, A. (2015). Netrin-1 Regulates Blood-Brain Barrier Function and Neuroinflammation. *Brain*; 138(6):1598-1612. doi: 10.1093/brain/awv092.

Ricoult, S.G., **Kennedy**, **T.E.** and Juncker, D. (2015). Substrate-Bound Protein Gradients to Study Haptotaxis. *Frontiers in Bioengineering and Biotechnology*; 3:40. doi: 10.3389/fbioe.2015.00040.

## Presentations

July 16, 2015 XII European Meeting on Glial Cells in Health and Disease. Bilbao, Spain. (Featured Symposium Speaker).

## Patents

Provisional Patent. "Substrates for Growing Cells". Inventors: Barrett, C., Kennedy, T., Corkery, C., Gu, K. and Harris, S. June 19, 2015.

## LAMARCHE-VANE, Nathalie

DeGeer, J., Kaplan, A., Mattar, P., Morabito, M., Stochaj, U., Kennedy, T.E., Debant, A., Cayouette, M., Fournier, A.E. and **Lamarche-Vane**, **N**. (2015). Hsc70 chaperone activity underlies Trio GEF function in axon growth and guidance induced by netrin-1. *Journal of Cell Biology*; 210(5):817-832. doi: 10.1083/jcb.201505084.

Pal, R., Ramdzan, Z.M., Kaur, S., Duquette, P.M., Marcotte, R., Leduy, L., Davoudi, S., **Lamarche-Vane**, N., Iulianella, A. and Nepveu, A. (2015). CUX2 Functions As an Accessory Factor in the Repair of Oxidative DNA Damage. *Journal of Biological Chemistry*; 290:22520-22531. doi: 10.1074/jbc.m115.651042.

## MANDATO, Craig A.

Au, C.E., Hermo, L., Byrne, E., Smirle, J., Fazel, A., Kearney, R.E., Smith, C.E., Vali, H., Fernandez-Rodriguez, J., Simon, P.H.G., **Mandato**, **C**., Nilsson, T. and Bergeron, J.J.M. (2015). Compartmentalization of membrane trafficking, glucose transport, glycosis, actin, tubuliln and the proteasome in the cytoplasmic droplet/Hermes body of epididymal sperm. *Open Biology*; 5(8):150080. doi: 10.1098.rsob.150080.

Boucher, E. and **Mandato**, **C.A**. (2015). Plasma membrane and cytoskeleton dynamics during single-cell wound healing. *Biochimica et Biophysica Acta (BBA)*; 1853(10):2649-2661. doi: 10.1016/j.bbamcr.2015.07.012.

Heidari, M., **Mandato**, **C.A**. and Lehoux, S. (2015). Vascular smooth muscle cell phenotypic modulation and the extracellular matrix. *Artery Research*; 9:14-18. doi: 10.1016/j.artres.2014.12.002.

Jones, N., Arab, N., Eid, R., Gharib, N., Sheibani, S., Vali, H., Khoury, C., Murray, A., Boucher, E., **Mandato**, **C**., Young, P. and Greenwood, M. (2015). Human Thyroid Cancer-1 (TC-1) is a vertebrate specific oncogenic protein that protects against copper and pro-apoptotic genes in yeast. *Microbial Cell*; 2(7):247-255. doi: 10.15698/mic2015.07.213.

## MCKEE, Marc

Addison, W.N., *Nelea*, *V*., Chicatun, F., Chien, Y.C., Tran-Khanh, N., Buschmann, M.D., Nazhat, S.N., Kaartinen, M.T., Vali, H., Tecklenburg, M.M., Franceschi, R.T. and **McKee**, **M.D**. (2015). Extracellular matrix mineralization in murine MC3T3-E1 osteoblast cultures: An ultrastructural, compositional and comparative analysis with mouse bone. *Bone*; 71:244-256. doi: 10.1016/j.bone.2014.11.003.

Al-Jallad, H., Palomo, T., Roughley, P., Glorieux, F.H., **McKee**, **M.D**., Moffatt, P. and Rauch, F. (2015). The effect of SERPINF1 in-frame mutations in osteogenesis imperfecta type VI. *Bone*; 76:115-120. doi: 10.1016/j.bone.2015.04.008.

Komarova, S.V., Safranek, L., Gopalakrishnan, J., Ou, M.J., **McKee**, **M.D**., Murshed, M., Rauch, F. and Zuhr, E. (2015). Mathematical model for bone mineralization. *Frontiers in Cell and Developmental Biology*; 3(51):1-11. doi: 10.3389/fcell.2015.00051.

### Conferences

January 2015 — "Normal, surgical and osseointegrated matrix-mineral interfaces in bone biology." 4th Annual Biomedical Engineering Symposium, McMaster University, Hamilton, Ontario. (Invited Speaker).

March 2015 — "Primer on bone biology: Cells, matrix and mineral in skeletal modeling and remodeling." Society of Toxicology Annual Meeting; Symposium on Skeletal System Endocrinology and Toxicology, San Diego, California. (Invited Speaker).

May 2015 — "Protein/peptide relationships and interactions with the inorganic phase in biominerals." International School on Biological Crystallization, Granada, Spain. (Invited Speaker).

### Patents

A new drug (enzyme-replacement therapy, Strensiq®, Asfotase Alfa) for hypophosphatasia that I was involved in developing with Montreal start-up Enobia Pharma (now Alexion Pharmaceuticals) is now approved for use in Canada, USA, Europe and Japan.

## MCPHERSON, Peter

Allaire, P.D., **McPherson**, **P.S**., and Ritter, B. (2015). Analysis of connecdenn 1-3 (DENND1A-C) GEF activity for Rab35. *In* Rab GTPases: Methods and Protocols. *Methods in Molecular Biology*. Springer Science+Business Media, New York. Guangpu Li, Ed. Vol 1298:217-231. doi: 10.1007/978-1-4939-2569-8.

Ioannou, M.S., Bell, E.S., Girard, M., Chaineau, M., Hamlin, J.N.R., Daubaras, M., Monast, A., Park, M., Hodgson, L., and **McPherson**, **P.S**. (2015). DENND2B activates Rab13 at the leading edge of migrating cells and promotes metastatic behavior. *Journal of Cell Biology*; 208(5):629-648. doi: 10.1083/jcb.201407068.

Larivière, R., Gaudet, R., Gentil, B.J., Girard, M., Conte, T., Minotti, S., Leclerc-Desaulniers, K., Shoubridge, E.A., Gehring, K., **McPherson**, **P.S.**, McKinney, R.A., Durham, H.D. and Brais, B. (2015). Sacs knockout mice present pathophysiological defects underlying autosomal recessive spastic ataxia of Charlevoix-Saguenay. *Human Molecular Genetics*; 24(3):727-739. doi: 10.1093/hmg/ddu491.

Li, X., Menade, M., Kozlov, G., Hu, Z., Dai, Z., **McPherson**, **P.S.**, Brais, B. and Gehring, K. (2015). High-throughput screening for ligands of the HEPN domain of sacsin. *PLoS ONE*; 10(9):e0137298. doi: 10.1371/journal.pone.0137298.

McAdam, R.L., Varga, K.T., Jiang, Z., Young, F.B., Blandford, V., **McPherson**, **P.S.**, Gong, L-W. and Sossin, W.S. (2015). The juxtamembrane region of synaptotagmin 1 interacts with dynamin 1 and regulates vesicles fission during compensatory endocytosis in endocrine cells. *Journal of Cell Science*; 128:2229-2235. doi: 10.1242/jcs.161505.

Nossova, N., Kulasekaran, G., Marat, A.L., Lund, I., Cremer, C., and **McPherson**, **P.S.** (2015). Phosphorylation-dependent regulation of connecdenn/DENND1 guanine-nucleotide exchange factors. *Journal of Biological Chemistry*; 290(29):17999-18008. doi: 10.1074/jbc.m115.636712.

Schreij, A.M.A., Chaineau, M., Ruan, W., Lin, S., Barker, P.A., Fon, E.A., and **McPherson**, **P.S.** (2015). LRRK2 functions in concert with clathrin-light chains to limit Rac1 activation and control actin cytoskeleton dynamics. *EMBO Reports;* 16(1):79-86. doi: 10.15252/embr.201438714.

Xu, J. and **McPherson**, **P.S.** (2015). DENND3: A signaling/trafficking interface in autophagy. *Cell Cycle*; 14(17):2717-2718. (Invited Review). doi: 10.1080/15384101.2015.1071136.

Xu, J., Fotouhi, M., and **McPherson**, **P.S.** (2015). Phosphorylation of the exchange factor DENND3 by ULK in response to starvation activates Rab12 and induces autophagy. *EMBO Reports*; 16(6):709-718. doi: 10.15252/embr.201440006.

## Presentations

January 19-24, 2015 — 11th Annual Bellairs Research Workshop: Systems Cell Biology and Neuroscience. Bellairs Research Institute, Holetown, Barbados. (Invited Speaker & Conference Organizer).

## MORALES, Carlos

Carvelli, L., Libin, Y. and **Morales**, **C.R.** (2015). Prosaposin: a protein with differential sorting and multiple functions. *Histology and Histopathology*; 30(6):647-60. doi: 10.14670/HH-30.647.

Patel, K.M., Strong, A., Tohyama, J., Jin, X., **Morales**, **C.R.**, Billheimer, J., Millar, J., Kruth, H. and Rader, D.J. (2015). Macrophage Sortilin Promotes LDL Uptake, Foam Cell Formation, and Atherosclerosis. *Circulation Research*; 116(5):789-96. doi: 10.1161/circresaha.116.305811.

## Patents

A novel therapeutic strategy for the interception pathogens at the site of cell entry. (Filed June 2015)

## NOEL, Geoffroy

## Presentations

March 2015 "Going against the Grain: An Anatomy Program for Haitian Medical Students at a Canadian University." International Medical Training; Consortium of Universities for Global Health, Boston, Massachusetts, U.S.A.

June 2015 "Dissecting out the variables of an interprofessional near peer anatomy teaching experience." American Association of Clinical Anatomists, Henderson, Nevada, U.S.A.

September 2015. "Gross morphologic and imaging characteristics of normal cadaveric non-ossified thyroid cartilage on high energy dual-energy CT reconstructions." ENRS 27th Annual Meeting, Newport, Rhode Island, U.S.A.

## POSNER, Barry

## Conferences

November 30, 2015 World Diabetes Congress, Vancouver, British Columbia. November 30 – December 4, 2015. (Invited Speaker).

December 2015 2nd Zavalkoff Symposium in Israel. (Organization).

## REINHARDT, Dieter

Guo, D.C., Gong, L., Regalado, E.S., Santos-Cortez, R.L., Zhao, R., Cai, B., Veeraraghavan, S., Prakash, S.K., Johnson, R.J., Muilenburg, A., Willing, M., Jondeau, G., Boileau, C., Pannu, H., Moran, R., Debacker, J., GenTac Investigators NHLBIGESP, Montalcino Aortic Consortium**, Bamshad, M.J., Shendure, J., Nickerson, D.A., Leal, S.M., Raman, C.S., Swindell, E.C., Milewicz, D.M., (**Reinhardt**, **D.P**. is member of the Montalcino Aortic Consortium). (2015). MAT2A mutations predispose individuals to thoracic aortic aneurysms. *American Journal of Human Genetics;* 96(1):170-177. doi: 10.1016/j.ajhg.2014.11.015.

Hinderer, S., Shena, N., Ringuette, L.J., Hansmann, J., **Reinhardt**, **D.P**., Brucker, S.Y., Davis, E.C. and Schenke-Layland, K. (2015). In vitro elastogenesis – Instructing human vascular smooth muscle cells to generate an elastic fiber-containing extracellular matrix scaffold. *Biomedical Materials*; 10(3):034102. doi: 10.1088/1748-6041/10/3/034102.

Hubmacher, D., Wang, L.W., Mecham, R.P., **Reinhardt**, **D.P**. and Apte, S.S. (2015). Adamtsl2 deletion results in bronchial fibrillin microfibril accumulation and bronchial epithelial dysplasia: A novel mouse model providing insights on geleophysic dysplasia. *Disease Models & Mechanisms*; 8(5):487-499. doi: 10.1242/dmm.017046.

Kaur, J. and **Reinhardt**, **D.P**. (2015). Extracellular Matrix Molecules. *In* Stem Cell Biology and Tissue Engineering in Dental Sciences (Vishwakarma, A., Sharpe, P.T., Shi, S., Wang, X., Ramalingam, M. eds.), Elsevier, New York: pp 25-43 (Book chapter). doi: 10.1016/b978-0-12-397157-9.00003-5.

Regalado, E.S., Guo, D.C., Prakash, S., Bensend, T.A., Flynn, K., Estrera, A., Safi, H., Liang, D., Hyland, J., Child, A., Arno, G., Boileau, C., Jondeau, G., Braverman, A., Moran, R., Morisaki, T., Morisaki, H., Montalcino Aortic Consortium**, Pyeritz, R., Coselli, J., LeMaire, S. and Milewicz, D.M. (**Reinhardt**, **D.P**. is member of the Montalcino Aortic Consortium). (2015). Aortic disease presentation and outcome associated with ACTA2 mutations. *Circulation: Cardiovascular Genetics*; 8(3):457-464. doi: 10.1161/circgenetics.114.000943.

Zeyer, K. and **Reinhardt**, **D.P**. (2015). Engineered mutations in fibrillin-1 leading to Marfan syndrome act at the protein and cellular levels. *Mutation Research*; (765):7-18. doi: 10.1016/j.mrrev.2015.04.002.

Zeyer, K.A. and **Reinhardt**, **D.P**. (2015). Fibrillin-containing microfibrils are key signal relay stations for cell function. *Journal of Cell Communication and Signaling*; 9(4):309-325. doi: 10.1007/s12079-015-0307-5.

## RIBEIRO, Alfredo

Abdelaziz, D.M., Abdullah, S., Magnussen, C., **Ribeiro-da-Silva**, **A**., Komarova, S.V., Rauch, F. and Stone, L.S. (2015). Behavioral signs of pain and functional impairment in a mouse model of osteogenesis imperfecta. *Bone;* 81:400-406. doi: 10.1016/j.bone.2015.08.001.

Bhosle, V.K., Gobeil, F. Jr., Rivera, J.C., **Ribeiro-da-Silva**, **A**. and Chemtob, S. (2015). High resolution imaging and function of nuclear G protein-coupled receptors (GPCRs). *In*: Nuclear G-Protein Coupled Receptors, Methods in Molecular Biology. (Edited by B.G. Allen and T.E. Hébert). New York: Springer Science, p. 81-97. doi: 10.1007/978-1-4939-1755-6_8.

Khoutorsky, A., Bonin, R.P., Sorge, R.E., Gkogkas, C., Pawlowski, S.A., Jafarnejad, S.M., Pitcher, M.H., Alain, T., Perez-Sanchez, J., Salter, E.W., Martin, L., **Ribeiro-da-Silva**, **A**., De Koninck Y., Cervero F., Mogil J.S. and Sonenberg, N. (2015). Translational control of nociception via 4E-binding protein 1. *eLife*, 2015;4:e12002. doi: 10.7554/eLife.12002.

Magnussen, C., Hung, S.P. and **Ribeiro-da-Silva**, **A**. (2015). Novel expression pattern of neuropeptide Y immunoreactivity in the peripheral nervous system in a rat model of neuropathic pain. *Molecular Pain*; 11(1):31. doi: 10.1186/s12990-015-0029-y.

Nascimento, F.P., Magnussen, C., Yousefpour, N. and **Ribeiro-da-Silva**, **A**. (2015). Sympathetic fibre sprouting in the skin contributes to pain-related behaviour in spared nerve injury and cuff models of neuropathic pain. *Molecular Pain* 11(1):59. doi: 10.1186/s12990-018-0062-x.

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## ROUILLER, Isabelle

Kalynych, S., Cherney, M., Bostina, M., **Rouiller**, **I**. and Cygler, M. (2015). Quaternary structure of WzzB and WzzE Polysaccharide Co-Polymerases. *Protein Science*; 24(1):58-69. doi: 10.1002/pro.2586.

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### Conferences

May 2015 — Tomography Reconstruction, Workshop at Annual Meeting of the Microscopical Society of Canada, Hamilton, Ontario. (Invited Lecturer).

May 2015 — "Conformational heterogenity of the AAA ATPase characterized by single particle cryo-EM." Annual Meeting of the Microscopical Society of Canada, Hamilton, Ontario, Canada. (Invited Speaker).

June 2015 — "Conformational heterogenity of the AAA ATPase p97 characterized by single particle cryo-EM." Colloque Société Française des Microscopies, Nice, France. (Invited Speaker).

## SOSSIN, Wayne

*Dunn*, *T.W*. and **Sossin**, **W.S**. (2015). Decline in the recovery from synaptic depression in heavier Aplysia results from decreased serotonin-induced novel PKC activation. *PLOS One*; 10(8):e0136907. doi: 10.1371/journal.pone.0136907.

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McCamphill, P.K., *Farah*, *C.A*., Anadolu, M.N., Hoque, S. and **Sossin**, **W.S**. (2015). Bidirectional control of eEF2 phosphorylation controls synaptic plasticity by decoding neuronal activity patterns. *Journal of Neuroscience;* 35(10):4403-4417. doi: 10.1523/jneurosci.2376-14.2015.

## STIFANI, Stefano

Chen, X., Wang, J.W., Salin-Cantegrel, A., Dali, R., and **Stifani**, **S**. (2015). Transcriptional regulation of mouse hypoglossal motor neuron somatotopic map formation. *Brain Structure and Function* 2015 Dec 19; 1-16. doi: 10.1007/s00429-015-1160-2.

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### Presentations

| | |
|---|---|
| April 2015 | Tianjin Medical University General Hospital. Tianjin, China. (Invited Speaker). |
| April 2015 | Tianjin Medical University. Tianjin, China. (Invited Speaker). |
| May 2015 | 9th Canadian Association of Neuroscience Meeting, Vancouver, British Columbia. (Invited Speaker). |
| November 2015 | Department of Medical Neuroscience. Dalhousie University, Halifax, Nova Scotia. (Invited Speaker). |

## VALI, Hojatollah

Addison, W.N., Nelea, V., Chicatun, F., Chien, Y.C., Tran-Khanh, N., Buschmann, M.D., Nazhat, S.N., Kaartinen, M.T., **Vali**, **H**., Tecklenburg, M.M., Franceschi, R.T. and McKee, M.D. (2015). Extracellular matrix mineralization in murine MC3T3-E1 osteoblast cultures: An ultrastructural, compositional and comparative analysis with mouse bone. *Bone*; 71:244-256. doi: 10.1016/j.bone.2014.11.003.

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Karimi, B., Mirzaei, H.M., Mobaraki, A. and **Vali**, **H**. (2015). Sulfonic acid-functionalized periodic mesoporous organosilicas in esterification and selective acylation reactions. *Catalysis Science & Technology*; 5(7):3624-3631. doi: 10.1039/c5cy00267b.

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Mahmoudi, M., Sheibani, S., Milani, A., Dinarvand, R., Rezaee, F., Gauberti, M. and **Vali**, **H**. (2015). Crucial role of protein corona for specific targeting of nanoparticles. *Nanomedicine*; 10(2):215-226. doi: 10.2217/nnm.14.69.

Modiri, S., Sharafi, H., Alidoust, L., Hajfarajollah, H., Haghighi, O., Azarivand, A., Zamanzadeh, Z., Zahiri, H.S., **Vali**, **H**. and Kambiz Noghabi, A. (2015). Lipid production and mixotrophic growth features of cyanobacterial strains isolated from various aquatic sites. *Microbiology*; 161(3):662-673. doi: 10.1099/mic.0.000025.

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Vahabi, A., Ramezanianpour, A.A., Sharafi, H., Zahiri, H.S., **Vali**, **H**. and Noghabi, K.A. (2015). Calcium carbonate precipitation by strain Bacillus licheniformis AK01, newly isolated from loamy soil: a promising alternative for sealing cement-based materials. *Journal of Basic Microbiology*; 55(1):105-111. doi: 10.1002/jobm.201300560.

Wan, J., Basu, K., Mui, J., **Vali**, **H**., Zheng, H.Q. and Laliberte, J.F. (2015). Ultrastructural Characterization of Turnip Mosaic Virus-Induced Cellular Rearrangements Reveals Membrane-Bound Viral Particles Accumulating in Vacuoles. *Journal of Virology*; 89(24):12441-12456. doi: 10.1128/JVI.02138-15.

## VENTURA, Nicole

Aasa, K.L., Zavan, B., Luna, R.L., Wong, P.G., **Ventura**, **N.M.**, Tse, M.Y., Carmeliet, P., Adams, M.A., Pang, S.C. and Croy, B.A. (2015). Placental growth factor influences maternal cardiovascular adaptation in pregnancy in mice. *Biology of Reproduction*; 92(2):44. doi: 10.1095/biolreprod.114.124677.

**Ventura**, **N.M.**, Jin, A.Y., Tse, M.Y., Peterson, N.T., Andrew, R.D. and Pang, S.C. (2015). Maternal hypertension programs increased cerebral tissue damage follow stroke in adult offspring. *Molecular and Cellular Biochemistry*; 408(1):223-233. doi: 10.1007/s11010-015-2498-8.

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## WALKER, Claire Dominique

Israel, M., Klein, M., Pruessner, J., Thaler, L., Spilka, M., Efanov, S., Ouellette, A.S., Berlim, M., Ali, N., Beaudry, T., Van den Eynde, F., **Walker**, **C.D**. & Steiger, H. (2015). N-back task performance corresponding brain-activation patterns in women with restrictive and bulimic eating-disorder variants. Preliminary findings. *Psychiatry Res*; 232(1):84-91. doi: 10.1016/j.pscychresns.2015.01.022.

## ***EMERITUS PUBLICATIONS***

### MILLER, Sandra

Durairaj, P., Shan, J.J. and **Miller**, **S.C.** (2015). Reversal of alopecia in a mouse model of human hair loss by daily, dose-dependent, dietary administration of a proprietary extract of North American ginseng (Panax Quinquefolius): Maintenance of hair after extract withdrawal. *Issues in Biological Sciences and Pharmaceutical Research*; 3(1): 5-13. doi: 10.15739/ibspr.007

**Presentations**

August 2015 "Daily feeding of a proprietary extract (CVT-E002) of North American ginseng results in progressive, non-obese body weight gains in pre-cancerous and carcinogen-injected mice: A possible role for CVT-E002 in abating cancer cachexia?" Annual conference of the NHPRS (Natural Health Products Research Society). (Invited Speech).

### SMITH, Charles E.

Au, C.E., Hermo, L., Byrne, E., Smirle, J., Fazel, A., Simon, P.H., Kearney, R.E., Cameron, P.H., **Smith**, **C.E.**, Vali, H., Fernandez-Rodriguez, J., Ma, K., Nilsson, T. and Bergeron, J.J. (2015). Expression, sorting and segregation of Golgi proteins during germ cell differentiation in the testis. *Molecular Biology of the Cell*; 26(22):4015-4032. doi: 10.1091//mbc.e14-12-1632.

Au, C.E., Hermo, L., Smirle, J., Byrne, E., Fazel, A., Kearney, R.E., **Smith**, **C.E.**, Vali, H., Fernandez-Rodriguez, J., Simon, P.H., Mandato, C., Nilsson, T. and Bergeron, J.J. (2015). Compartmentalization of membrane trafficking, glucose transport, glycolysis, actin, tubulin and the proteasome in the cytoplasmic body droplet/Hermes body of epididymal sperm. *Open Biology*; 5(8):150080. doi: 10.1098/rsob.150080.

Nurbaeva, M.K., Eckstein, M., Concepcion, A.R., **Smith**, **C.E.**, Srikanth, S., Paine, M.L., Gwack, Y., Hubbard, M.J., Feske, S. and Lacruz, R.S. (2015). Dental enamel cells express functional SOCE channels. *Scientific Reports*; 5:15803. doi: 10.1038/srep15803.

Wang, S-K., Hu, Y., Yang, J., **Smith**, **C.E.**, Nunez, S.M., Richardson, A.S., Pal, S., Samann, A.C., Hu, J.C-C. and Simmer, J.P. (2015). Critical roles for WDR72 in calcium transport and matrix protein removal during enamel maturation. Molecular Genetics and Genomic Medicine; 3(4):302-19. doi: 10.1002/mgg3.143.

Wang, S-K., Hu, Y., Yang, J., **Smith**, **C.E.**, Richardson, A.S., Yamakoshi, Y., Lee, Y-L., Seymen, F., Koruyucu, M., Gencay, K., Lee, M., Choi, M., Kim, J-W., Hu, J.C-C. and Simmer, J.P. (2015). Fam83h null mice support a neomorphic mechanism for human ADHCA1. *Molecular Genetics and. Genomic Medicine*; 4(1):46-67. doi: 10.1002/mgg3.178.