

Co-auteur

100- Al-Katat A, Boudreau L, Gagnon E, Assous I, Villeneuve L, Leblanc CA, Bergeron A, Sirois M, El-Hamamsy I, Calderone A. Greater TIMP-1 protein levels and neointimal formation represent sex-dependent cellular events limiting aortic vessel expansion in female rats. *IUBMB Life*. 2024 Sep 12. doi: 10.1002/iub.2916. Epub ahead of print. PMID: 39264710.

99 : Tebbji F, Menon ACT, Khemiri I, St-Cyr DJ, Villeneuve L, Vincent AT, Sellam A. Small molecule inhibitors of fungal $\Delta(9)$ fatty acid desaturase as antifungal agents against *Candida auris*. *Front Cell Infect Microbiol*. 2024 Aug 30;14:1434939. doi: 10.3389/fcimb.2024.1434939. PMID: 39282497; PMCID: PMC11392922.

98: Fundere A, Rose A, Xiong F, Muthukumarasamy KM, Altuntas Y, Dasari H, Villeneuve L, Sirois MG, Tanguay JF, Tardif JC, Hiram R. Daily exposure to chlordecone, an organochlorine pesticide, increases cardiac fibrosis and atrial fibrillation vulnerability. *J Hazard Mater*. 2024 Aug 14;478:135533. doi: 10.1016/j.jhazmat.2024.135533. Epub ahead of print. PMID: 39173376.

97: Vachon L, Jean G, Milasan A, Babran S, Lacroix E, Guadarrama Bello D, Villeneuve L, Rak J, Nanci A, Mihalache-Avram T, Tardif JC, Finnerty V, Ruiz M, Boilard E, Tessier N, Martel C. Platelet extracellular vesicles preserve lymphatic endothelial cell integrity and enhance lymphatic vessel function. *Commun Biol*. 2024 Aug 11;7(1):975. doi: 10.1038/s42003-024-06675-8. PMID: 39128945.

96 : G linas R, L vesque C, Thompson Legault J, Rivard ME, Villeneuve L, Laprise C, Rioux JD. Human induced pluripotent stem cells (hiPSCs) derived cells reflect tissue specificity found in patients with Leigh syndrome French Canadian variant (LSFC). *Front Genet.* 2024 Apr 19;15:1375467. doi: 10.3389/fgene.2024.1375467. PMID: 38706791; PMCID: PMC11066297.

95: Le Quilliec E, LeBlanc CA, Neuilly O, Xiao J, Younes R, Altuntas Y, Xiong F, Naud P, Villeneuve L, Sirois MG, Tanguay JF, Tardif JC, Hiram R. Atrial Cardiomyocytes contribute to the Inflammatory Status associated with Atrial Fibrillation in Right Heart Disease. *Europace.* 2024 Mar 28:euae082. doi: 10.1093/europace/euae082. Epub ahead of print. PMID: 38546222.

94 : Dumont BL, Neagoe PE, Charles E, Villeneuve L, Ninni S, Tardif JC, R kel A, White M, Sirois MG. Low density neutrophils and neutrophil extracellular traps (NETs) are new inflammatory players in heart failure. *Can J Cardiol.* 2024 Mar 28:S0828-282X(24)00281-2. doi: 10.1016/j.cjca.2024.03.018. Epub ahead of print. PMID: 38555028.

93 : Labb  P, Martel C, Shi YF, Montezano A, He Y, Gillis MA, Higgins M , Villeneuve L, Touyz R, Tardif JC, Thorin-Trescases N, Thorin E. Knockdown of ANGPTL2 promotes left ventricular systolic dysfunction by upregulation of NOX4 in mice. *Front Physiol.* 2024 Feb 15;15:1320065. doi: 10.3389/fphys.2024.1320065. PMID: 38426206; PMCID: PMC10902461.

92: Dumont BL, Neagoe PE, Charles E, Villeneuve L, Tardif JC, Râkel A, White M, Sirois MG. Low-Density Neutrophils Contribute to Subclinical Inflammation in Patients with Type 2 Diabetes. *Int J Mol Sci.* 2024 Jan 30;25(3):1674. doi: 10.3390/ijms25031674. PMID: 38338951; PMCID: PMC10855851.

91 : Hertig V, Villeneuve L, Calderone A. Nestin identifies a subpopulation of rat ventricular fibroblasts and participates in cell migration. *Am J Physiol Cell Physiol.* 2023 Aug 1;325(2):C496-C508. doi: 10.1152/ajpcell.00161.2023. Epub 2023 Jul 17. PMID: 37458435.

90-Kebbe M, Naud P, Assous I, Gagnon E, McCall A, Villeneuve L, LeBlanc CA, Nguyen QT, Calderone A. Distinct Protein Kinase C isoforms drive the cell cycle re-entry of two separate populations of neonatal rat ventricular cardiomyocytes. *Am J Physiol Cell Physiol.* 2023 Feb 6. doi: 10.1152/ajpcell.00506.2022. Epub ahead of print. PMID: 36745530.

89- Bergeron A, Hertig V, Villeneuve L, Sirois MG, Demers P, El-Hamamsy I, Calderone A. Structural dysregulation of the pulmonary autograft was associated with a greater density of p16^{INK4A}-vascular smooth muscle cells. *Cardiovasc Pathol.* 2022 Dec 15:107512. doi: 10.1016/j.carpath.2022.107512. Epub ahead of print. PMID: 36529416.

88: Labbé P, Munoz Goyette V, Thorin-Trescases N, Villeneuve L, Desanlis I, Delwarde C, Shi YF, Martel C, Yu C, Alikashani A, Mamarbachi M, Lesage F, Mathieu S, Tardif JC, Mathieu P, Kmita M, Thorin É. Angiopoietin-like 2 is

essential to aortic valve development in mice. *Commun Biol.* 2022 Nov 21;5(1):1277. doi: 10.1038/s42003-022-04243-6. PMID: 36414704.

87: Bonneau S, Landry C, Bégin S, Adam D, Villeneuve L, Clavet-Lanthier MÉ, Dasilva A, Charles E, Dumont BL, Neagoe PE, Brochiero E, Menaouar A, Nasir B, Stevens LM, Ferraro P, Noiseux N, Sirois MG. Correlation between Neutrophil Extracellular Traps (NETs) Expression and Primary Graft Dysfunction Following Human Lung Transplantation. *Cells.* 2022 Oct 29;11(21):3420. doi: 10.3390/cells11213420. PMID: 36359815; PMCID: PMC9656095.

86: Rautureau Y, Berlatie M, Rivas D, Uy K, Blanchette A, Miquel G, Higgins MÉ, Mecteau M, Nault A, Villeneuve L, Lavoie V, Théberge-Julien G, Brand G, Lapointe L, Denis M, Rosa C, Fortier A, Blondeau L, Guertin MC, Dubé MP, Thorin É, Ledoux J, Rhains D, Rhéaume É, Tardif JC. Adenylate cyclase type 9 antagonizes cAMP accumulation and regulates endothelial signaling involved in atheroprotection. *Cardiovasc Res.* 2022 May 16:cvac085. doi: 10.1093/cvr/cvac085. Epub ahead of print. PMID: 35576489.

85: Bergeron A, Hertig V, Villeneuve L, Chauvette V, El-Hamamsy I, Calderone A. The ascending aorta of male hypertensive bicuspid aortic valve patients preferentially associated with a cellular aneurysmal phenotype. *Physiol Rep.* 2022 Apr;10(8):e15251. doi: 10.14814/phy2.15251. PMID: 35439345.

84 : Amri N, Bégin R, Tessier N, Vachon L, Villeneuve L, Bégin P, Bazin R, Loubaki L, Martel C. Use of Early Donated COVID-19 Convalescent Plasma Is Optimal to

Preserve the Integrity of Lymphatic Endothelial Cells. *Pharmaceuticals* (Basel).

2022 Mar 17;15(3):365. doi: 10.3390/ph15030365. PMID: 35337162; PMCID: PMC8948637.

83: Vachon L, Smaani A, Tessier N, Jean G, Demers A, Milasan A, Ardo N, Jarry S, Villeneuve L, Alikashani A, Finherty V, Ruiz M, Sorci-Thomas MG, Mayer G, Martel C. Downregulation of low-density lipoprotein receptor mRNA in lymphatic endothelial cells impairs lymphatic function through changes in intracellular lipids. *Theranostics*. 2022 Jan 1;12(3):1440-1458. doi: 10.7150/thno.58780. PMID: 35154499; PMCID: PMC8771568.

82 : Harel F, Nguyen QT, Nsaibia MJ, Finnerty V, Morgan A, Sirois M, Villeneuve L, Calderone A, Bergeron A, Brochiero E, Tardif JC, Shi Y, Dupuis J. SPECT imaging of pulmonary vascular disease in bleomycin-induced lung fibrosis using a vascular endothelium tracer. *Respir Res*. 2021 Sep 4;22(1):240. doi: 10.1186/s12931-021-01836-3. PMID: 34481508.

81: Charles E, Dumont BL, Bonneau S, Neagoe PE, Villeneuve L, R  kel A, White M, Sirois MG. Angiotensin 1 release from human neutrophils is independent from neutrophil extracellular traps (NETs). *BMC Immunol*. 2021 Aug 3;22(1):51. doi: 10.1186/s12865-021-00442-8. PMID: 34344299; PMCID: PMC8336418.

80-Qi XY, Vahdahi Hassani F, Hoffmann D, Xiao J, Xiong F, Villeneuve LR, Ljubojevic-Holzer S, Kamler M, Abu-Taha I, Heijman J, Bers DM, Dobrev D, Nattel S. Inositol Trisphosphate Receptors and Nuclear Calcium in Atrial Fibrillation.

Circ Res. 2020 Dec 30. doi: 10.1161/CIRCRESAHA.120.317768. Epub ahead of print.
PMID: 33375812.

79- Bergeron A, Brezai A, Shukr R, Villeneuve L, Allen BG, Qureshi WMS, Hentges KE, Calderone A. Filamentous nestin and nonmuscle myosin IIB are associated with a migratory phenotype in neonatal rat cardiomyocytes. *J Cell Physiol.* 2021 Feb;236(2):1281-1294. doi: 10.1002/jcp.29934. Epub 2020 Jul 11. PMID: 32654195.

78-Emmott A, Hertig V, Bergeron A, Villeneuve L, Lefebvre L, Leask RL, Calderone A, El-Hamamsy I. Distinct Expression of Nonmuscle Myosin IIB in Pulmonary Arteries of Patients With Aortic Stenosis vs Insufficiency Undergoing a Ross Procedure. *Can J Cardiol.* 2020 Feb 21:S0828-282X(20)30179-3. doi: 10.1016/j.cjca.2020.02.074. Epub ahead of print. PMID: 32544488.

77 -Liu T, Xiong F, Qi XY, Xiao J, Villeneuve L, Abu-Taha I, Dobrev D, Huang C, Nattel S. Altered calcium-handling produces reentry-promoting action potential alternans in atrial fibrillation-remodeled hearts. *JCI Insight.* 2020 Apr 7. pii: 133754. doi: 10.1172/jci.insight.133754. [Epub ahead of print] PubMed PMID: 32255765.

76- Caland L, Labbé P, Mamarbachi M, Villeneuve L, Ferbeyre G, Noly PE, Carrier M, Thorin-Trescases N, Thorin É. Knockdown of angiotensin-like 2 induces clearance of vascular endothelial senescent cells by apoptosis, promotes endothelial repair and slows atherogenesis in mice. *Aging (Albany NY).* 2019 Jun 11;11(11):3832-3850. doi: 10.18632/aging.102020. PubMed PMID: 31186381; PubMed Central PMCID:

PMC6594793.

75-Hertig V, Brezai A, Bergeron A, Villeneuve L, Gillis MA, Calderone A. p38 α MAPK inhibition translates to cell cycle re-entry of neonatal rat ventricular cardiomyocytes and de novo nestin expression in response to thrombin and after apex resection. *Sci Rep.* 2019 Jun 3;9(1):8203. doi: 10.1038/s41598-019-44712-3. PubMed PMID: 31160695.

74-Pinçon A, De Montgolfier O, Akkoyunlu N, Daneault C, Pouliot P, Villeneuve L, Lesage F, Levy BI, Thorin-Trescases N, Thorin É, Ruiz M. Non-Alcoholic Fatty Liver Disease, and the Underlying Altered Fatty Acid Metabolism, Reveals Brain Hypoperfusion and Contributes to the Cognitive Decline in APP/PS1 Mice. *Metabolites.* 2019 May 25;9(5). pii: E104. doi: 10.3390/metabo9050104. PubMed PMID: 31130652.

73-de Montgolfier O, Pinçon A, Pouliot P, Gillis MA, Bishop J, Sled JG, Villeneuve L, Ferland G, Lévy BI, Lesage F, Thorin-Trescases N, Thorin É. High Systolic Blood Pressure Induces Cerebral Microvascular Endothelial Dysfunction, Neurovascular Unit Damage, and Cognitive Decline in Mice. *Hypertension.* 2019 Jan;73(1):217-228. doi: 10.1161/HYPERTENSIONAHA.118.12048. PubMed PMID: 30571552.

72-Vigneault P, Naud P, Qi X, Xiao J, Villeneuve L, Davis DR, Nattel S. Calcium-dependent potassium channels control proliferation of cardiac progenitor cells and bone marrow-derived mesenchymal stem cells. *J Physiol.* 2018 Jun;596(12):2359-2379. doi: 10.1113/JP275388. Epub 2018 May 5. PubMed PMID:

29574723; PubMed Central PMCID: PMC6002232.

71-Gélinas R, El Khoury N, Chaix MA, Beauchamp C, Alikashani A, Ethier N, Boucher G, Villeneuve L, Robb L, Latour F, Mondesert B, Rivard L, Goyette P, Talajic M, Fiset C, Rioux JD. Characterization of a Human Induced Pluripotent Stem Cell-Derived Cardiomyocyte Model for the Study of Variant Pathogenicity: Validation of a KCNJ2 Mutation. *Circ Cardiovasc Genet*. 2017 Oct;10(5). pii: e001755. doi: 10.1161/CIRCGENETICS.117.001755. PubMed PMID: 29021306.

70-Hertig V, Matos-Nieves A, Garg V, Villeneuve L, Mamarbachi M, Caland L, Calderone A. Nestin expression is dynamically regulated in cardiomyocytes during embryogenesis. *J Cell Physiol*. 2018 Apr;233(4):3218-3229. doi: 10.1002/jcp.26165. Epub 2017 Sep 27. PubMed PMID: 28834610; PubMed Central PMCID: PMC5783184

69-Hertig V, Tardif K, Meus MA, Duquette N, Villeneuve L, Toussaint F, Ledoux J, Calderone A. Nestin expression is upregulated in the fibrotic rat heart and is localized in collagen-expressing mesenchymal cells and interstitial CD31(+)-cells. *PLoS One*. 2017 Apr 27;12(4):e0176147. doi: 10.1371/journal.pone.0176147. eCollection 2017. PubMed PMID: 28448522; PubMed Central PMCID: PMC5407835.

68-Maafi F, Li B, Gebhard C, Brodeur MR, Nachar W, Villeneuve L, Lesage F, Rhainds D, Rhéaume E, Tardif JC. Development of a new bioactivatable fluorescent probe for quantification of apolipoprotein A-I proteolytic degradation in vitro and in vivo. *Atherosclerosis*. 2017 Mar;258:8-19. doi: 10.1016/j.atherosclerosis.2017.01.026. Epub 2017 Jan 21. PubMed PMID: 28167355.

67-Chabot A, Hertig V, Boscher E, Nguyen QT, Boivin B, Chebli J, Bissonnette L, Villeneuve L, Brochiero E, Dupuis J, Calderone A. Endothelial and Epithelial Cell Transition to a Mesenchymal Phenotype Was Delineated by Nestin Expression. *J Cell Physiol.* 2016 Jul;231(7):1601-10. doi: 10.1002/jcp.25257. Epub 2015 Dec 2. PubMed PMID: 26574905.

66-Meus MA, Hertig V, Villeneuve L, Jasmin JF, Calderone A. Nestin Expressed by Pre-Existing Cardiomyocytes Recapitulated in Part an Embryonic Phenotype; Suppressive Role of p38 MAPK. *J Cell Physiol.* 2017 Jul;232(7):1717-1727. doi: 10.1002/jcp.25496. Epub 2016 Jul 27. PubMed PMID: 27439108.

65-Poirier S, Hamouda HA, Villeneuve L, Demers A, Mayer G. Trafficking Dynamics of PCSK9-Induced LDLR Degradation: Focus on Human PCSK9 Mutations and C-Terminal Domain. *PLoS One.* 2016 Jun 9;11(6):e0157230. doi: 10.1371/journal.pone.0157230. eCollection 2016. PubMed PMID: 27280970; PubMed Central PMCID: PMC4900664.

64-Tadevosyan A, Villeneuve LR, Fournier A, Chatenet D, Nattel S, Allen BG. Caged ligands to study the role of intracellular GPCRs. *Methods.* 2016 Jan 1;92:72-7. doi: 10.1016/j.ymeth.2015.07.005. Epub 2015 Jul 18. PubMed PMID: 26196333.

63-Tardif K, Hertig V, Duquette N, Villeneuve L, El-Hamamsy I, Tanguay JF, Calderone A. Nestin upregulation characterizes vascular remodeling secondary to hypertension in the rat. *Am J Physiol Heart Circ Physiol.* 2015 May 15;308(10):H1265-74. doi: 10.1152/ajpheart.00804.2014. Epub 2015 Mar 13. PubMed

62-Tadevosyan A, Létourneau M, Folch B, Doucet N, Villeneuve LR, Mamarbachi AM, Pétrin D, Hébert TE, Fournier A, Chatenet D, Allen BG, Nattel S. Photoreleasable ligands to study intracrine angiotensin II signalling. *J Physiol*. 2015 Feb 1;593(3):521-39. doi: 10.1113/jphysiol.2014.279109. Epub 2015 Jan 7. PubMed PMID: 25433071; PubMed Central PMCID: PMC4324703. PMID: 25770244.

61-Chabot A, Meus MA, Naud P, Hertig V, Dupuis J, Villeneuve L, El Khoury N, Fiset C, Nattel S, Jasmin JF, Calderone A. Nestin is a marker of lung remodeling secondary to myocardial infarction and type I diabetes in the rat. *J Cell Physiol*. 2015 Jan;230(1):170-9. doi: 10.1002/jcp.24696. PubMed PMID: 24915827.

60-Tardif K, Hertig V, Dumais C, Villeneuve L, Perrault L, Tanguay JF, Calderone A. Nestin downregulation in rat vascular smooth muscle cells represents an early marker of vascular disease in experimental type I diabetes. *Cardiovasc Diabetol*. 2014 Aug 21;13:119. doi: 10.1186/s12933-014-0119-6. PubMed PMID: 25139503; PubMed Central PMCID: PMC4143548.

59-Merlen C, Villeneuve LR, Allen BG. Using caged ligands to study intracrine endothelin signaling in intact cardiac myocytes. *Methods Mol Biol*. 2015;1234:31-41. doi: 10.1007/978-1-4939-1755-6_4. PubMed PMID: 25304346.

58-Aflaki M, Qi XY, Xiao L, Ordog B, Tadevosyan A, Luo X, Maguy A, Shi Y, Tardif JC, Nattel S. Exchange protein directly activated by cAMP mediates slow

delayed-rectifier current remodeling by sustained β -adrenergic activation in guinea pig hearts. *Circ Res*. 2014 Mar 14;114(6):993-1003. doi: 10.1161/CIRCRESAHA.113.302982. Epub 2014 Feb 7. PubMed PMID: 24508724.

57-Merlen C, Farhat N, Luo X, Chatenet D, Tadevosyan A, Villeneuve LR, Gillis MA, Nattel S, Thorin E, Fournier A, Allen BG. Intracrine endothelin signaling evokes IP3-dependent increases in nucleoplasmic Ca^{2+} in adult cardiac myocytes. *J Mol Cell Cardiol*. 2013 Sep;62:189-202. doi: 10.1016/j.yjmcc.2013.05.021. Epub 2013 Jun 10. PubMed PMID: 23756157; PubMed Central PMCID: PMC3770605.

56-Vaniotis G, Glazkova I, Merlen C, Smith C, Villeneuve LR, Chatenet D, Therien M, Fournier A, Tadevosyan A, Trieu P, Nattel S, Hébert TE, Allen BG. Regulation of cardiac nitric oxide signalling by nuclear β -adrenergic and endothelin receptors. *J Mol Cell Cardiol*. 2013 May 16. doi:pii: S0022-2828(13)00171-5. 10.1016/j.yjmcc.2013.05.003. [Epub ahead of print] PubMed PMID: 23684854.

55-Farhat N, Thorin-Trescases N, Mamarbachi M, Villeneuve L, Yu C, Martel C, Duquette N, Gayda M, Nigam A, Juneau M, Allen BG, Thorin E. Angiopoietin-like 2 promotes atherogenesis in mice. *J Am Heart Assoc*. 2013 May 10;2(3):e000201. doi: 10.1161/JAHA.113.000201. PubMed PMID: 23666461.

54-El-Helou V, Chabot A, Gosselin H, Villeneuve L, Clavet-Lanthier ME, Tanguay JF, Enikolopov G, Fernandes KJ, Jasmin JF, Calderone A. Cardiac resident nestin(+) cells participate in reparative vascularisation. *J Cell Physiol*. 2013 Mar 4. doi: 10.1002/jcp.24345. [Epub ahead of print] PubMed PMID: 23459851.

53-El-Helou V, Gosselin H, Villeneuve L, Calderone A. The plating of rat scar myofibroblasts on matrigel unmasks a novel phenotype; the self assembly of lumen-like structures. *J Cell Biochem.* 2012 Jul;113(7):2442-50. doi: 10.1002/jcb.24117. PubMed PMID: 22573558.

52-Del Duca D, Tadevosyan A, Karbassi F, Akhavein F, Vaniotis G, Rodaros D, Villeneuve LR, Allen BG, Nattel S, Rohlicek CV, Hébert TE. Hypoxia in early life is associated with lasting changes in left ventricular structure and function at maturity in the rat. *Int J Cardiol.* 2012 Apr 19;156(2):165-73. doi: 10.1016/j.ijcard.2010.10.135. Epub 2010 Dec 4. PubMed PMID: 21131074.

51-Gendron ME, Thorin-Trescases N, Mamarbachi AM, Villeneuve L, Théorêt JF, Mehri Y, Thorin E. Time-dependent beneficial effect of chronic polyphenol treatment with catechin on endothelial dysfunction in aging mice. *Dose Response.* 2012;10(1):108-19. doi: 10.2203/dose-response.11-014.Thorin. Epub 2011 Oct 14. PubMed PMID: 22423234; PubMed Central PMCID: PMC3299533.

50-Drouin A, Farhat N, Bolduc V, Thorin-Trescases N, Gillis MA, Villeneuve L, Nguyen A, Thorin E. Up-regulation of thromboxane A₂ impairs cerebrovascular eNOS function in aging atherosclerotic mice. *Pflugers Arch.* 2011 Sep;462(3):371-83. doi: 10.1007/s00424-011-0973-y. Epub 2011 May 27. PubMed PMID: 21617900.

49-Lauzier B, Merlen C, Vaillant F, McDuff J, Bouchard B, Beguin PC, Dolinsky VW, Foisy S, Villeneuve LR, Labarthe F, Dyck JR, Allen BG, Charron G, Des Rosiers C.

Post-translational modifications, a key process in CD36 function: lessons from the spontaneously hypertensive rat heart. *J Mol Cell Cardiol.* 2011 Jul;51(1):99-108. doi: 10.1016/j.yjmcc.2011.04.001. Epub 2011 Apr 13. PubMed PMID: 21510957.

48-Béguin PC, El-Helou V, Gillis MA, Duquette N, Gosselin H, Brugada R, Villeneuve L, Lauzier D, Tanguay JF, Ribuot C, Calderone A. Nestin (+) stem cells independently contribute to neural remodelling of the ischemic heart. *J Cell Physiol.* 2011 May;226(5):1157-65. doi: 10.1002/jcp.22441. PubMed PMID: 20945344.

47-Drouin A, Bolduc V, Thorin-Trescases N, Bélanger É, Fernandes P, Baraghis E, Lesage F, Gillis MA, Villeneuve L, Hamel E, Ferland G, Thorin E. Catechin treatment improves cerebrovascular flow-mediated dilation and learning abilities in atherosclerotic mice. *Am J Physiol Heart Circ Physiol.* 2011 Mar;300(3):H1032-43. doi: 10.1152/ajpheart.00410.2010. Epub 2010 Dec 24. PubMed PMID: 21186270.

46-Dingar D, Merlen C, Grandy S, Gillis MA, Villeneuve LR, Mamarbachi AM, Fiset C, Allen BG. Effect of pressure overload-induced hypertrophy on the expression and localization of p38 MAP kinase isoforms in the mouse heart. *Cell Signal.* 2010 Nov;22(11):1634-44. Epub 2010 Jun 17. PubMed PMID: 20600854.

45-Moise N, Dingar D, Mamarbachi AM, Villeneuve LR, Farhat N, Gaestel M, Khairallah M, Allen BG. Characterization of a novel MK3 splice variant from murine ventricular myocardium. *Cell Signal.* 2010 Oct;22(10):1502-12. Epub 2010

Jun 4. PubMed PMID: 20570725.

44-Robitaille M, Gora S, Wang Y, Goupil E, Pétrin D, Del Duca D, Villeneuve LR, Allen BG, Laporte SA, Bernard DJ, Hébert TE. Gbetagamma is a negative regulator of AP-1 mediated transcription. *Cell Signal*. 2010 Aug;22(8):1254-66. Epub 2010 Apr 18. PubMed PMID: 20403427.

43-Wakili R, Yeh YH, Qi XY, Greiser M, Chartier D, Nishida K, Maguy A, Villeneuve LR, Boknik P, Voigt N, Krysiak J, Kääb S, Ravens U, Linke WA, Stienen GJ, Shi Y, Tardif JC, Schotten U, Dobrev D, Nattel S. Multiple Potential Molecular Contributors to Atrial Hypocontractility Caused by Atrial Tachycardia Remodeling in Dogs. *Circ Arrhythm Electrophysiol*. 2010 Jul 26. [Epub ahead of print] PubMed PMID: 20660541.

42-Tadevosyan A, Maguy A, Villeneuve LR, Babin J, Bonnefoy A, Allen BG, Nattel S. Nuclear-delimited angiotensin receptor-mediated signaling regulates cardiomyocyte gene expression. *J Biol Chem*. 2010 Jul 16;285(29):22338-49. Epub 2010 May 12. PubMed PMID: 20463030; PubMed Central PMCID: PMC2903375.

41-Dingar D, Benoit MJ, Mamarbachi AM, Villeneuve LR, Gillis MA, Grandy S, Gaestel M, Fiset C, Allen BG. Characterization of the expression and regulation of MK5 in the murine ventricular myocardium. *Cell Signal*. 2010 Jul;22(7):1063-75. doi: 10.1016/j.cellsig.2010.02.009. Epub 2010 Mar 7. PubMed PMID: 20214976; PubMed Central PMCID: PMC3415464.

40-Burstein B, Comtois P, Michael G, Nishida K, Villeneuve L, Yeh YH, Nattel S. Changes in connexin expression and the atrial fibrillation substrate in congestive heart failure. *Circ Res.* 2009 Dec 4;105(12):1213-22. Epub 2009 Oct 29. PubMed PMID: 19875729.

39-Béguin PC, El-Helou V, Assimakopoulos J, Clément R, Gosselin H, Brugada R, Villeneuve L, Rohlicek CV, Del Duca D, Lapointe N, Rouleau JL, Calderone A. The phenotype and potential origin of nestin+ cardiac myocyte-like cells following infarction. *J Appl Physiol.* 2009 Oct;107(4):1241-8. Epub 2009 Aug 13. PubMed PMID: 19679743.

38-Del Duca D, Wong G, Trieu P, Rodaros D, Kouremenos A, Tadevosyan A, Vaniotis G, Villeneuve LR, Tchervenkov CI, Nattel S, Allen BG, Hébert TE, Rohlicek CV. Association of neonatal hypoxia with lasting changes in left ventricular gene expression: an animal model. *J Thorac Cardiovasc Surg.* 2009 Sep;138(3):538-46, 546.e1. PubMed PMID: 19698832.

37-El-Helou V, Proulx C, Béguin P, Assimakopoulos J, Gosselin H, Clement R, Villeneuve L, Huot-Marchand JE, Deblois D, Lajoie C, Calderone A. The cardiac neural stem cell phenotype is compromised in streptozotocin-induced diabetic cardiomyopathy. *J Cell Physiol.* 2009 Aug;220(2):440-9. PubMed PMID: 19388005.

36-Sauvageau S, Thorin E, Villeneuve L, Dupuis J. Change in pharmacological effect of endothelin receptor antagonists in rats with pulmonary hypertension: role of ETB-receptor expression levels. *Pulm Pharmacol Ther.* 2009

Aug;22(4):311-7. PubMed PMID: 19489130.

35-Maguy A, Le Bouter S, Comtois P, Chartier D, Villeneuve L, Wakili R, Nishida K, Nattel S. Ion channel subunit expression changes in cardiac Purkinje fibers: a potential role in conduction abnormalities associated with congestive heart failure. *Circ Res*. 2009 May 8;104(9):1113-22. Epub 2009 Apr 9. PubMed PMID: 19359601.

34-Richer M, David M, Villeneuve LR, Trieu P, Ethier N, Pétrin D, Mamarbachi AM, Hébert TE. GABA-B(1) receptors are coupled to the ERK1/2 MAP kinase pathway in the absence of GABA-B(2) subunits. *J Mol Neurosci*. 2009 May;38(1):67-79. Epub 2008 Dec 4. PubMed PMID: 19052921.

33-Farhat N, Thorin-Trescases N, Voghel G, Villeneuve L, Mamarbachi M, Perrault LP, Carrier M, Thorin E. Stress-induced senescence predominates in endothelial cells isolated from atherosclerotic chronic smokers. *Can J Physiol Pharmacol*. 2008 Nov;86(11):761-9. PubMed PMID: 19011671.

32-El-Helou V, Beguin PC, Assimakopoulos J, Clement R, Gosselin H, Brugada R, Aumont A, Biernaskie J, Villeneuve L, Leung TK, Fernandes KJ, Calderone A. The rat heart contains a neural stem cell population; role in sympathetic sprouting and angiogenesis. *J Mol Cell Cardiol*. 2008 Nov;45(5):694-702. Epub 2008 Jul 31. PubMed PMID: 18718475.

31-Sauvageau S, Thorin E, Villeneuve L, Dupuis J. Endothelin-3-dependent

pulmonary vasoconstriction in monocrotaline-induced pulmonary arterial hypertension. *Peptides*. 2008 Nov;29(11):2039-45. Epub 2008 Aug 15. PubMed PMID: 18771698.

30-Qi XY, Yeh YH, Xiao L, Burstein B, Maguy A, Chartier D, Villeneuve LR, Brundel BJ, Dobrev D, Nattel S. Cellular signaling underlying atrial tachycardia remodeling of L-type calcium current. *Circ Res*. 2008 Oct 10;103(8):845-54. Epub 2008 Aug 21. PubMed PMID: 18723446.

29-Xiao L, Coutu P, Villeneuve LR, Tadevosyan A, Maguy A, Le Bouter S, Allen BG, Nattel S. Mechanisms underlying rate-dependent remodeling of transient outward potassium current in canine ventricular myocytes. *Circ Res*. 2008 Sep 26;103(7):733-42. Epub 2008 Aug 21. PubMed PMID: 18723449.

28-Voghel G, Thorin-Trescases N, Farhat N, Mamarbachi AM, Villeneuve L, Fortier A, Perrault LP, Carrier M, Thorin E. Chronic treatment with N-acetyl-cysteine delays cellular senescence in endothelial cells isolated from a subgroup of atherosclerotic patients. *Mech Ageing Dev*. 2008 May;129(5):261-70. Epub 2008 Jan 20. PubMed PMID: 18302967.

27-Baragli A, Grieco ML, Trieu P, Villeneuve LR, Hébert TE. Heterodimers of adenylyl cyclases 2 and 5 show enhanced functional responses in the presence of Galphas. *Cell Signal*. 2008 Mar;20(3):480-92. Epub 2007 Nov 22. PubMed PMID: 18164588.

26-Maliba R, Brkovic A, Neagoe PE, Villeneuve LR, Sirois MG.

Angiopoietin-mediated endothelial P-selectin translocation: cell signaling mechanisms. *J Leukoc Biol.* 2008 Feb;83(2):352-60. Epub 2007 Nov 5. PubMed PMID: 17984290.

25-El-Helou V, Proulx C, Gosselin H, Clement R, Mimee A, Villeneuve L, Calderone A. Dexamethasone treatment of post-MI rats attenuates sympathetic innervation of the infarct region. *J Appl Physiol.* 2008 Jan;104(1):150-6. Epub 2007 Oct 4. PubMed PMID: 17916672.

24-Dupuis J, Préfontaine A, Villeneuve L, Ruel N, Lefebvre F, Calderone A. Bone marrow-derived progenitor cells contribute to lung remodelling after myocardial infarction. *Cardiovasc Pathol.* 2007 Nov-Dec;16(6):321-8. Epub 2007 Jun 20. PubMed PMID: 18005870.

23-Voghel G, Thorin-Trescases N, Farhat N, Nguyen A, Villeneuve L, Mamarbachi AM, Fortier A, Perrault LP, Carrier M, Thorin E. Cellular senescence in endothelial cells from atherosclerotic patients is accelerated by oxidative stress associated with cardiovascular risk factors. *Mech Ageing Dev.* 2007 Nov-Dec;128(11-12):662-71. Epub 2007 Oct 13. PubMed PMID: 18022214.

22-Proulx C, El-Helou V, Gosselin H, Clement R, Gillis MA, Villeneuve L, Calderone A. Antagonism of stromal cell-derived factor-1alpha reduces infarct size and improves ventricular function after myocardial infarction. *Pflugers Arch.* 2007 Nov;455(2):241-50. Epub 2007 May 23. PubMed PMID: 17520275.

21-Gendron ME, Thorin-Trescases N, Villeneuve L, Thorin E. Aging associated with mild dyslipidemia reveals that COX-2 preserves dilation despite endothelial dysfunction. *Am J Physiol Heart Circ Physiol*. 2007 Jan;292(1):H451-8. Epub 2006 Sep 15. PubMed PMID: 16980343.

20-David M, Richer M, Mamarbachi AM, Villeneuve LR, Dupré DJ, Hébert TE. Interactions between GABA-B1 receptors and Kir 3 inwardly rectifying potassium channels. *Cell Signal*. 2006 Dec;18(12):2172-81. Epub 2006 May 23. PubMed PMID: 16809021.

19-Dupré DJ, Robitaille M, Ethier N, Villeneuve LR, Mamarbachi AM, Hébert TE. Seven transmembrane receptor core signaling complexes are assembled prior to plasma membrane trafficking. *J Biol Chem*. 2006 Nov 10;281(45):34561-73. Epub 2006 Sep 7. PubMed PMID: 16959776.

18-Yacoub D, Théorêt JF, Villeneuve L, Abou-Saleh H, Mourad W, Allen BG, Merhi Y. Essential role of protein kinase C delta in platelet signaling, alpha IIb beta 3 activation, and thromboxane A2 release. *J Biol Chem*. 2006 Oct 6;281(40):30024-35. Epub 2006 Aug 8. PubMed PMID: 16895913.

17-Zhang Y, Xiao J, Wang H, Luo X, Wang J, Villeneuve LR, Zhang H, Bai Y, Yang B, Wang Z. Restoring depressed HERG K⁺ channel function as a mechanism for insulin treatment of abnormal QT prolongation and associated arrhythmias in diabetic rabbits. *Am J Physiol Heart Circ Physiol*. 2006 Sep;291(3):H1446-55. Epub

2006 Apr 14. PubMed PMID: 16617123.

16-Lefebvre F, Préfontaine A, Calderone A, Caron A, Jasmin JF, Villeneuve L, Dupuis J. Modification of the pulmonary renin-angiotensin system and lung structural remodelling in congestive heart failure. *Clin Sci (Lond)*. 2006 Sep;111(3):217-24. PubMed PMID: 16640505.

15-Boivin B, Lavoie C, Vaniotis G, Baragli A, Villeneuve LR, Ethier N, Trieu P, Allen BG, Hébert TE. Functional beta-adrenergic receptor signalling on nuclear membranes in adult rat and mouse ventricular cardiomyocytes. *Cardiovasc Res*. 2006 Jul 1;71(1):69-78. Epub 2006 Mar 24. PubMed PMID: 16631628.

14-Calderone A, Bel-Hadj S, Drapeau J, El-Helou V, Gosselin H, Clement R, Villeneuve L. Scar myofibroblasts of the infarcted rat heart express natriuretic peptides. *J Cell Physiol*. 2006 Apr;207(1):165-73. PubMed PMID: 16270351.

13-El-Helou V, Dupuis J, Proulx C, Drapeau J, Clement R, Gosselin H, Villeneuve L, Manganas L, Calderone A. Resident nestin+ neural-like cells and fibers are detected in normal and damaged rat myocardium. *Hypertension*. 2005 Nov;46(5):1219-25. Epub 2005 Oct 17. PubMed PMID: 16230517.

12-Drapeau J, El-Helou V, Clement R, Bel-Hadj S, Gosselin H, Trudeau LE, Villeneuve L, Calderone A. Nestin-expressing neural stem cells identified in the scar following myocardial infarction. *J Cell Physiol*. 2005 Jul;204(1):51-62. PubMed PMID: 15605421.

11-Boivin B, Villeneuve LR, Farhat N, Chevalier D, Allen BG. Sub-cellular distribution of endothelin signaling pathway components in ventricular myocytes and heart: lack of preformed caveolar signalosomes. *J Mol Cell Cardiol.* 2005 Apr;38(4):665-76. PubMed PMID: 15808843.

10-Migneault A, Sauvageau S, Villeneuve L, Thorin E, Fournier A, Leblanc N, Dupuis J. Chronically elevated endothelin levels reduce pulmonary vascular reactivity to nitric oxide. *Am J Respir Crit Care Med.* 2005 Mar 1;171(5):506-13. Epub 2004 Dec 3. PubMed PMID: 15579730.

9-Melnyk P, Ehrlich JR, Pourrier M, Villeneuve L, Cha TJ, Nattel S. Comparison of ion channel distribution and expression in cardiomyocytes of canine pulmonary veins versus left atrium. *Cardiovasc Res.* 2005 Jan 1;65(1):104-16. PubMed PMID: 15621038.

8-Fausther M, Villeneuve L, Cadrin M. Heat shock protein 70 expression, keratin phosphorylation and Mallory body formation in hepatocytes from griseofulvin-intoxicated mice. *Comp Hepatol.* 2004 Aug 12;3(1):5. PubMed PMID: 15307891; PubMed Central PMCID: PMC516018.

7-Ehrlich JR, Cha TJ, Zhang L, Chartier D, Villeneuve L, Hébert TE, Nattel S. Characterization of a hyperpolarization-activated time-dependent potassium current in canine cardiomyocytes from pulmonary vein myocardial sleeves and left atrium. *J Physiol.* 2004 Jun 1;557(Pt 2):583-97. Epub 2004 Mar 12. PubMed PMID:

15020696; PubMed Central PMCID: PMC1665099.

6-Rollin S, Lemieux C, Maliba R, Favier J, Villeneuve LR, Allen BG, Soker S, Bazan NG, Merhi Y, Sirois MG. VEGF-mediated endothelial P-selectin translocation: role of VEGF receptors and endogenous PAF synthesis. *Blood*. 2004 May 15;103(10):3789-97. Epub 2004 Feb 5. PubMed PMID: 14764537.

5-Ledoux J, Greenwood I, Villeneuve LR, Leblanc N. Modulation of Ca²⁺-dependent Cl⁻ channels by calcineurin in rabbit coronary arterial myocytes. *J Physiol*. 2003 Nov 1;552(Pt 3):701-14. Epub 2003 Aug 22. PubMed PMID: 12937294; PubMed Central PMCID: PMC2343461.

4-Tran Duc AT, Schwab AJ, Simard A, Villeneuve L, Dupuis J. Reduction in hepatic endothelin-1 clearance in cirrhosis. *Clin Sci (Lond)*. 2003 Aug;105(2):227-34. PubMed PMID: 12708965.

3-Boivin B, Chevalier D, Villeneuve LR, Rousseau E, Allen BG. Functional endothelin receptors are present on nuclei in cardiac ventricular myocytes. *J Biol Chem*. 2003 Aug 1;278(31):29153-63. Epub 2003 May 19. PubMed PMID: 12756260.

2-Jasmin JF, Calderone A, Leung TK, Villeneuve L, Dupuis J. Lung structural remodeling and pulmonary hypertension after myocardial infarction: complete reversal with irbesartan. *Cardiovasc Res*. 2003 Jun 1;58(3):621-31. PubMed PMID: 12798435.

1-Lavoie C, Mercier JF, Salahpour A, Umapathy D, Breit A, Villeneuve LR, Zhu WZ, Xiao RP, Lakatta EG, Bouvier M, Hébert TE. Beta 1/beta 2-adrenergic receptor heterodimerization regulates beta 2-adrenergic receptor internalization and ERK signaling efficacy. *J Biol Chem*. 2002 Sep 20;277(38):35402-10. Epub 2002 Jul 24. PubMed PMID: 12140284.