

## BIOGRAPHICAL SKETCH

<b>NAME</b>  <b>Pedro Geraldes</b>	<b>POSITION TITLE</b>  <b>Assistant Professor / University of Sherbrooke Department of Medicine, Endocrinology service</b>		
<b>EDUCATION/TRAINING</b>			
<b>INSTITUTION AND LOCATION</b>	<b>DEGREE</b>	<b>YEAR(s)</b>	<b>FIELD OF STUDY</b>
University of Quebec in Montreal	Baccalaureate	1999	Molecular Biology
University of Montreal	Master	2001	Biomedical Sciences
University of Montreal	Ph.D.	2007	Biomedical Sciences
Joslin Diabetes Center / Harvard Medical School	Fellow	2010	Vascular Cell Biology

### SCHOLARSHIPS:

“Fonds de la Recherche en Santé du Québec” – Scholar award	2010-2011
Juvenile Diabetes Research Foundation International - Advanced	2009-2010
“Fonds de la Recherche en Santé du Québec”	2007-2009
“Fonds de la Recherche en Santé du Québec”	2004-2007
Montreal University	2004-2005
Montreal University	2002-2003

### AWARDS:

Montreal Research Diabetic Center / Retreat • Best presentation	01-2010
American Diabetes Association / Scientific Session • Young Investigator Travel Grant	06-2009
Club de recherches cliniques du Québec / Prix Hans Selye • Best oral presentation	09-2004
Jean-Louis Lévesque Award – Montreal Heart Institute • Best oral presentation	06-2004
Club de recherches cliniques du Québec / Prix Hans Selye • Finalist	09-2003
Canadian Cardiology Society • Finalist	10-2001

### **Publications**

1. Rask-Madsen C., Li Q., Abramov R., Wu I., Chen K., Freund B., Yamamoto-Hiraoka J., Goldenbogen J., Sotiropoulos K.B., Clermont A., **Geraldes P.**, Dall'Osso C., Wagers A.J., Huang P.L., Rekhter M., Scalia R., Kahn C.R., King G.L. Loss of insulin signaling in vascular endothelial cells accelerates atherosclerosis in apolipoprotein E null mice. *Cell Metabolism*, 2010; 11(5): 379-89.
2. **Geraldes P.**, King G.L. Activation of Protein Kinase C Isoforms and Its Impact on Diabetic Complications. *Circulation Research*, 2010; 106(8): 1319-31.
3. **Geraldes P.**, Hiraoka-Yamamoto J., Matsumoto M., Clermont A., Leigtes M., Marette A., Aiello L.P., Kern T.S., King G.L. Activation of PKC delta and SHP-1 by hyperglycemia causes vascular cell apoptosis and diabetic retinopathy. *Nature Medicine*. 2009; 15(11):1298-306.

4. Kondo T., El Khattabi I., Nishimura W., Laybutt D.R., **Geraldes P.**, Shah S., King G., Bonner-Weir S., Weir G., Sharma A. P38 MAPK is a major regulator of MafA protein stability under oxidative stress. *Mol Endocrinol.* 2009; 23(8):1281-90.
5. **Geraldes P.**, Yagi K., Ohshiro Y., He Y., Maeno Y., Yamamoto-Hiraoka J., Rask-Madsen C., Chung S.W., Perrella M.A., King G.L. Regulation of Heme Oxygenase-1 Expression and Function by Insulin Through PI3-Kinase/ Akt2 Pathway but Not Via NRF2 Activation. *J Biol Chem.* 2008; 283(49):34327-36.
6. **Geraldes P.**, Geoffroy P., Cloutier I. Sirois M.G., Tanguay J-F. Local Delivery of 17-beta-Estradiol Modulates Collagen Content in Porcine Coronary Arteries After PTCA and Stent Implantation. *J Vasc Res.* 2008, 45: 503-511.
7. **Geraldes P.**, Yamagata M., Rook S.L., Sassa Y., Ma R.C., Clermont A., Gao B., Aiello L.P., Feener E.P., King G.L. Glypican 4, a Membrane Binding Protein for Bactericidal/Permeability-Increasing Protein Signaling Pathways in Retinal Pigment Epithelial Cells. *Invest Ophthalmol Vis Sci.* 2007, 48: 5750-5755.
8. **Geraldes P.**, Gosselin H., Tanguay J-F., Clement R., Calderone A. Tamoxifen Treatment of Myocardial Infarcted Female Rats Exacerbates Scar Formation. *Pflugers Arch - Eur J Physiol.* 2007, 454: 385-393.
9. Yamagata M., Rook S.L., Sassa Y., Ma R.C., **Geraldes P.**, Goddard L., Clermont A., Gao B., Salti H., Gundel R., White M., Feener E.P., Aiello L.P., and King G.L.. Bactericidal/Permeability-Increasing Protein's Signaling Pathways and its Retinal Trophic and Anti-angiogenic Effects. *FASEB.* 2006, 20: 2058-2067.
10. **Geraldes P.**, Gagnon S., Hadjadj S., Merhi Y., Sirois M.G., Cloutier I., Tanguay J-F. Reduction of CD40 and CD40L Receptor Expression on Endothelial Cells by Estrogen: Role of Estrogen Receptor Alpha. *Cardiovasc Res.* 2006, 71: 566-573
11. Gagnon C., Legault F., **Geraldes P.**, Tanguay J-F., Lambert C. Diverse Effects of Ace Inhibitors and Angiotensin II Receptor Antagonists on Prevention of Cardiac Hypertrophy and Collagen Distribution in Spontaneously Hypertensive Rats. *Int J Cardiol.* 2004, **97**: 373-381.
12. **Geraldes P.**, Sirois M.G., Tanguay J-F. Specific Contribution of Estrogen Receptors on Mitogen-Activated Protein Kinase Pathways and Vascular Cell Activation. *Circ Res.* 2003, **93**: 399-405.
13. **Geraldes P.**, Sirois M.G., Bernatchez P.N., Tanguay J-F. Estrogen Regulation of Endothelial and Smooth Muscle Cell Migration and Proliferation: Role of p38 and p42/44 Mitogen-Activated Protein Kinases. *Arterioscler Thromb Vasc Biol.* 2002, **22**:1585-1590.

#### Abstracts

- 1- **Geraldes P.**, Sun J.K., Keenan H., Matsumoto M., Aiello, L.P, King G.L. Correlation of Vascular Complications With SHP-1 Expression in Patients With More Than 50 Years of Diabetes. *Diabetes.* 2010, 59(Suppl A): 241-OR.
- 2- **Geraldes P.**, King G.L. PDGF Inactivation and Oxidative/NF- $\kappa$ B Are Equally Important and Independent Pathway To Cause Pericyte Apoptosis in Diabetic Retinopathy. *Diabetes.* 2009;58(Suppl A):385-OR.
- 3- Jeong I-K., Noh H., Cao L., Chen K., He Z., **Geraldes P.**, Matsumoto M., Rask-Madsen C., Mooney D., King G. Mechanism of Insulin Actions on Ischemia-Induced Angiogenesis with and without Endothelial Progenitor Cells. *Diabetes.* 2009; 58(Suppl A): 340-OR.
- 4- **Geraldes P.**, Hiraoka-Yamamoto J., Kern T.S., King G.L. PDGF Resistance: Novel Mechanism for the Development of Diabetic Retinopathy and Glycemic Memory. *Diabetes.* 2008;57(Suppl A):52-OR.
- 5- Rask-Madsen C., Wu I, Chen K., **Geraldes P.**, Scott J.A., Kahn C.R., King G.L. Insulin Resistance is not Sufficient to Accelerate Atherosclerosis. *Diabetes.* 2008;57(Suppl A): 252-OR.
- 6- **Geraldes P.**, Rask-Madsen C., King K.L. Mechanisms of Glycemic Memory in Causing Pericyte Apoptosis: Activation of PKC Isoform and p38 MAPK. *Diabetes.* 2007; **56** (Suppl A): 0820-P.
- 7- **Geraldes P.**, Gosselin H., Tanguay J-F., Clément R., Calderone A. 2005. Tamoxifen Treatment of Post-Myocardial Infarcted Adult Female Rats Exerted a Nefarious Action on Scar Remodeling. *JACC*, **45** (3, Suppl A): 205A.
- 8- **Geraldes P.**, Gagnon S., Hadjadj S., Merhi Y., Sirois MG., Tanguay J-F. 2004. Estrogen Blocks STAT1 Activation and Prevents the Induction of CD40 and CD40L Expression on Vascular Cells Through the Estrogen Receptor- $\alpha$ . *Circulation*, **110** (17):III-209.
- 9- **Geraldes P.**, Gagnon S., Sirois MG., Tanguay J-F. 2004. Estrogen Modulates CD40 and CD40L Receptor Expression Induced by IFN Gamma: Role of Estrogen Receptor Alpha. *Can J. Cardio.*, **20** (Suppl D): 139D.
- 10- **Geraldes P.**, Sirois M.G., Tanguay J-F. 2003. MAPK Pathways and Vascular Cell Activation: Specific Role of ER Alpha and Beta. *Can. J. Cardio.*, **19** (Suppl A): 591.
- 11- **Geraldes P.**, Sirois M.G., Tanguay J-F. 2003. Regulation of Estrogen Receptor Subtypes on Vascular Cells. *JACC*, **41** (6 Suppl A): 250A.