

# Dr Frédéric Picard, Ph.D.

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## Positions

- Visiting scientist, 2014 - 2015  
Centre for Molecular Medicine and Therapeutics  
University of British Columbia, Canada
- Associate Professor, 2010 - present  
IUCPQ Research Center  
Laval University, Quebec City, Canada
- Assistant Professor, 2004 - 2010  
Laval Hospital Research Center  
Laval University, Quebec City, Canada
- Postdoctoral CIHR Fellow and Research Scientist, 2002 - 2004  
Massachusetts Institute of Technology, Cambridge, MA  
Supervisor: Dr Leonard Guarente  
Project: Role of SIRT1 in adipocyte biology
- Postdoctoral CIHR Fellow, 2000-2002  
Institute for Genetics and Molecular and Cellular Biology, Strasbourg, France  
Supervisor: Dr Johan Auwerx  
Project: Nuclear cofactors of PPARgamma in metabolic diseases

## Education

- Ph.D. – Physiology-endocrinology with Honors 2000  
Laval University, Quebec City, Canada  
Medical Research Council of Canada studentship 1997 - 2000  
Supervisors: Dr Yves Deshaies; Dr Denis Richard  
Project: Lipoprotein lipase in obesity and insulin resistance
- Certificate – Pharmaceutical Drug Development 1999  
Laval University, Quebec City, Canada
- B.Sc. – Biology 1996  
Laval University, Quebec City, Canada

## Achievements

- 47 articles
- 48 scientific communications, 26 as speaker
- 8 patent applications
- On the Scientific Advisory Board of BEST in Genomics! (Genome Canada)
- Awardee of the 2005 Laval University Raymond-Blais Medal
- Awardee of the 2005 Collège de Lévis Alumni Award
- CIHR New Investigator 2004-2009
- FRQS Junior 2 Researcher 2009-2012
- FRQS Senior Researcher 20012-2016

## Publications

- 49- Girard MJ, Lebel M, **Picard F**. Long non-coding RNAs: key regulators of age-related diseases? Popular science review in Médecine Sciences Amérique. 3: 2013.
- 48- Roy-Bellavance C, Gaudreau P, **Picard F**. Genetics of aging. Popular science review in Médecine Sciences Amérique. 3: 2013.
- 47- Carter S, Caron A, Richard D, **Picard F**. Role of Leptin Resistance in the Development of Obesity in Older Patients. Invited review in Clinical Interventions in Aging. 8: 829-844, 2013.
- 46- Meloche J, Courchesne A, Barrier M, Bissierier M, Carter S, Bissierier M, Paulin R, Breuils-Bonnet S, Tremblay E, Biardel S, Racine C, Couture C, Bonnet P, Majka SM, Deshaies Y, **Picard F**, Provencher S, Bonnet S. Critical Role for the Advanced Glycation Endproducts Receptor in Pulmonary Arterial Hypertension Etiology. Journal of the American Heart Association. 2013; 2: e005157. doi: 10.1161/JAHA.112.005157. 2013.
- 45- **Picard F**, Deshaies Y. Inflammation, ectopic fat, and lipid metabolism: view from the chair. International Journal of Obesity. Vol 2 Suppl 2:S29-S31, 2013.
- 44- Li Z, Martin J, Poirier P, Hould FS, Marceau S, Marceau P, **Picard F**. Upregulation of plasma insulin-like growth factor binding protein 2 levels after biliopancreatic diversion in obese patients. Obesity. 20:1469-1473, 2012.
- 43- Carter S, Miard S, Roy-Bellavance C, Boivin L, Li Z, Pibarot P, Mathieu P, **Picard F**. Sirt1 inhibits resistin expression in aortic stenosis. Plos One. 7(4):e35110, 2012
- 42- Li Z, Miard S, Laplante M, Sonenberg N, **Picard F**. Insulin stimulates IGFBP-2 expression through a PI3K/mTOR pathway. Molecular and Cellular Endocrinology. 358:63-68, 2012.
- 41- Lebel M, **Picard F**, Ferland G, Gaudreau P. Drugs, nutrients and phytoactive principles improving the health span of rodent models of human age-related diseases. Invited review in Journal of Gerontology: Biological Sciences. 67:140-151, 2012.
- 40- Lafontaine-Lacasse M, Doré G, **Picard F**. Hexosamines stimulate apoptosis by altering Sirt1 action and levels in rodent pancreatic  $\beta$ -cells. Journal of Endocrinology. 208: 41-49, 2011.
- 39- Richard D, **Picard F**. Brown fat biology and thermogenesis. Invited review in Frontiers in Bioscience. 16:1233-60, 2011.
- 38- Li Z, **Picard F**. Modulation of IGFBP2 mRNA expression in white adipose tissue upon aging and obesity. Hormone and Metabolic Research. 42: 787-791, 2010.
- 37- **Picard F**, Deshaies Y. Rediscovering brown adipose tissue. Physiology of BAT thermogenesis: a view from the Chair. International Journal of Obesity. 34: Suppl 1:S34-5, 2010.
- 36- Richard D, Carpentier A, Doré G, Ouellet V, **Picard F**. Determinants of brown adipose tissue development and thermogenesis. Invited review in International Journal of Obesity. 34 Suppl 2:S59-66, 2010.
- 35- Boissonneault V, Morin J, **Picard F**, Giroux I. Description des suppléments vitaminiques et minéraux des patients ayant subi une dérivation biliopancréatique. Pharmactuel. 43: 15-24, 2010.
- 34- Lafontaine-Lacasse M, Richard D, **Picard F**. Effects of age and gender on Sirt1 mRNA expressions in the hypothalamus of the mouse. Neuroscience Letters. 480:1-3 2010.
- 33- Mohty D, Pibarot P, Després JP, Cartier A, Côté C, Arsenault B, Cosnay P, **Picard F**, Mathieu P. Age-related differences in the pathogenesis of calcific aortic stenosis: the potential role of resistin. Int J Cardiol. 142:126-32, 2010.
- 32- Simoneau M-D, Vachon A, **Picard F**. Prophylactic effect of dalteparin on anti-factor Xa levels in morbidly obese patients after bariatric surgery. Obesity Surgery 20 :487-91, 2010.
- 31- Miard S, Dombrowski L, Carter S, Boivin L, **Picard F**. Aging alters PPARgamma in rodent and human adipose tissue by modulating the balance in SRC-1. Aging Cell. 8: 449-459, 2009.

- 30- Arrault A, Rocchi S, **Picard F**, Maurois P, Pirotte B, Vamecq J. A short series of antidiabetic sulfonylureas exhibit multiple ligand PPARgamma-binding patterns. *Biomedicine & Pharmacotherapy*. 63: 56-62, 2009.
- 29- Miard S, **Picard F**. Obesity and aging have divergent genomic fingerprints. *International Journal of Obesity* 32:1873-1874, 2008.
- 28- Bordone L, **Picard F**, Motta MC, Robinson A, Jhala US, Apfeld J, McDonagh T, Lemieux M, McBurney M, Szilvasi A, Easlson EJ, Lin SJ, Guarente L. Sirt1 regulates insulin secretion by repressing UCP2 in pancreatic beta cells. *Plos Biol.* 4: 210-220, 2006.
- 27- Guarente L, **Picard F**. Calorie restriction: the Sir2 connection. *Cell*.120: 473-482, 2005.
- 26- **Picard F**, Deshaies Y. PPARgamma and novel nuclear factors in the interplay between adipose tissue and the cardiovascular system: view from the Chair. *International Journal of Obesity*. 29 Suppl 1:S24-25, 2005.
- 25- **Picard F**, Guarente L. Molecular links between aging and adipose tissue. *International Journal of Obesity*. 29 Suppl 1:S36-39, 2005.
- 24- Um SH, Frigerio F, Watanabe M, **Picard F**, Joaquin M, Sticker M, Fumagalli S, Allegrini PR, Kozma SC, Auwerx J, Thomas G. Absence of S6K1 protects against age and diet-induced obesity while enhancing insulin sensitivity. *Nature*. 431: 200-205, 2004.
- 23- **Picard F**, Kurtev M, Chung N, Topark-Ngarm A, Senawong T, Machado de Oliveira R, Leid M, McBurney MW, Guarente L. SIRT1 promotes fat mobilization in white adipocytes by repressing PPARgamma. *Nature* 429: 771-776, 2004.
- 22- Penfornis P, Kapur S, **Picard F**, Perreault M, Deshaies Y, Marette A. Adipocyte-derived NO: regulation and biological roles. *In: Progress in Obesity Research*, vol. 9, chapter 37. Edited by Medeiros-Neto G, Halpern A, Bouchard C. John Libbey Eurotext, Montrouge, 2003, pp. 180-183.
- 21- Francis G, Fayard E, **Picard F**, Auwerx J. Nuclear receptors and the control of metabolism. *Annual Review Physiology* 65: 261-311, 2003.
- 20- Lemieux C, **Picard F**, Labrie F, Richard D, Deshaies Y. The estrogen antagonist EM-652 and dehydroepiandrosterone prevent diet- and ovariectomy-induced obesity. *Obesity Research* 11:477-490, 2003.
- 19- **Picard F**, Géhin M, Annicotte J-S, Rocchi S, Champy M-F, O'Malley BW, Chambon P, Auwerx J. SRC-1 and TIF2 control energy fluxes between white and brown adipose tissues. *Cell* 111: 931-941, 2002.
- 18- **Picard F**, Wanatabe M, Schoonjans K, O'Malley BW, Auwerx J. Progesterone receptor knockout mice have an improved glucose homeostasis secondary to beta-cell proliferation. *Proceedings of the National Academy of Sciences USA* 24: 15644-15648, 2002.
- 17- **Picard F**, Richard D, Arsenijevic D, Deshaies Y. Response of adipose and muscle lipoprotein lipase to chronic infection and subsequent acute LPS challenge. *Clinical Diagnostic and Laboratory Immunology* 9: 771-776, 2002.
- 16- **Picard F**, Auwerx J. PPARgamma and glucose homeostasis. *Annual Review of Nutrition* 22: 167-197, 2002.
- 15- Timofeeva E, **Picard F**, Duclos M, Deshaies Y, Richard D. Neuronal activation and CRH expression in the brain of obese and lean Zucker rats in response to refeeding. *European Journal of Neuroscience* 15: 1013-1029, 2002.
- 14- Richard D, **Picard F**, Lemieux C, Lalonde J, Samson P, Deshaies Y. Effects of Topiramate and sex hormones on energy balance of male and female rats. *International Journal of Obesity* 26: 344-353, 2002.
- 13- **Picard F**, Boivin A, Lalonde J, Deshaies Y. Resistance of adipose tissue lipoprotein lipase to insulin action in rats fed an obesity-promoting diet. *American Journal of Physiology* 282: E412-E418, 2002.
- 12- Rocchi S, **Picard F**, Vamecq J, Gelman L, Dubuquoy L, Bac P, Champy M-F, Plunket KD, Leesnitzer LM, Blanchard SG, Desreumaux P, Auwerx J. A unique PPARgamma ligand with potent insulin-sensitizing yet weak adipogenic activity. *Molecular Cell* 8: 737-747, 2001.
- 11- **Picard F**, Kapur S, Perreault M, Marette A, Deshaies Y. Nitric oxide mediates endotoxin-induced hypertriglyceridemia through its action on skeletal muscle lipoprotein lipase. *The FASEB Journal* 15: 1828-1830, 2001.

- 10- Arvaniti K, Richard D, **Picard F**, Deshaies Y. Lipid deposition in rats centrally infused with leptin in the presence or absence of corticosterone. American Journal of Physiology 281: E809-E816, 2001.
- 9- **Picard F**, Deshaies Y, Lalonde J, Samson P, Richard D. Topiramate reduces energy and fat gains in lean (*Fa/?*) and obese (*fa/fa*) Zucker rats. Obesity Research 8: 656-663, 2000.
- 8- Kapur S, **Picard F**, Perreault M, Deshaies Y, Marette A. Nitric oxide: a new player in the modulation of energy metabolism. International Journal of Obesity 24 (suppl. 4) : S36-S40, 2000.
- 7- **Picard F**, Deshaies Y, Lalonde J, Labrie C, Bélanger A, Labrie F, Richard D. Effects of the estrogen antagonist EM-652.HCl on energy and lipid balance in ovariectomized rats. International Journal of Obesity 24: 830-840, 2000.
- 6- **Picard F**, Richard D, Timofeeva E, Deshaies Y. Abnormal insulin and beta-adrenergic modulation of lipoprotein lipase during refeeding after prolonged fasting in the Zucker rat. Diabetologia 43: 866-874, 2000.
- 5- Timofeeva E, Deshaies Y, **Picard F**, Richard D. Corticotropin-releasing hormone-binding protein in the brain and pituitary of food-deprived obese (*fa/fa*) Zucker rats. American Journal of Physiology 277: R1749-R1759, 1999.
- 4- **Picard F**, Naïmi N, Richard D, Deshaies Y. Response of adipose tissue lipoprotein lipase to the cephalic phase of insulin secretion. Diabetes 48: 452-459, 1999.
- 3- Huang Q, Viale A, **Picard F**, Nahon, J-L, Richard D. Effects of leptin on melanin-concentrating hormone expression in the brain of lean and obese *ob/ob* mice. Neuroendocrinology 69: 145-153, 1999.
- 2- **Picard F**, Richard D, Huang Q, Deshaies Y. Effects of leptin on adipose tissue lipoprotein lipase in the obese *ob/ob* mouse. International Journal of Obesity 22: 1088-1095, 1998.
- 1- **Picard F**, Deshaies Y. Postprandial serum lipids and tissue lipoprotein lipase are acutely altered by the alpha-glucosidase inhibitor acarbose. Hormone and Metabolic Research 28: 377-380, 1996.

## Invited Scientific presentations

2012	Benzon Foundation Symposium on Adipose Tissue, Copenhagen, Denmark
2011	1st International Conference on ImmunoMetabolism, Greece
2011	Hôpital Ste-Justine, Université de Montréal, Canada
2011	2011 CIHR Summer Program in Aging, Bromont, Canada
2010	Lady Davis Research Institute, McGill University, Montréal, Canada
2009	China-Canada Health Research Initiative Summit, Beijing, China
2009	CHUQ / Hotel-Dieu de Quebec, Quebec
2009	Faculty of Medicine, McGill University, Montréal, Canada
2009	4 <sup>th</sup> Quebec Valve Symposium, Quebec City, Canada
2007	3 <sup>rd</sup> Quebec Valve Symposium, Quebec City, Canada
2006	Faculty of Pharmacy, Université de Montréal, Montréal, Canada
2006	EPPE annual meeting, Université de Sherbrooke, Sherbrooke, Canada
2005	Association des gériatres du Québec annual meeting, Montréal, Canada
2005	PPAR International Meeting, MonteCarlo, Monaco
2005	Hôpital Necker, Paris, France
2005	Merck, Rahway, NJ, USA
2004	NAASO Meeting, Las Vegas, USA
2004	CREFSIP conferences, Quebec City, Canada
2004	Aging SNE satellite meeting, Montpellier, France
2003	Genfit, Lille, France
2003	Merck, Rahway, NJ, USA
2003	Elixir Pharmaceuticals, Cambridge, MA, USA
2002	EU-BIOMED 1 Meeting, Rome, Italy
2001	Nordic nutrition seminars, Lillehammer, Norway
2001	42 <sup>nd</sup> ICBL, Bergen, Norway
2001	39 <sup>th</sup> Meeting of the ESPE, Brussels, Belgium