THIERRY ALQUIER, PhD

CONTACT INFORMATIONS
Montreal Diabetes Research Center
CR-CHUM- Angus Research Building
Room 402-E
2901, Rachel East
Montreal QC H1W4A4
Tel. 514-890-8000 ext 23628
e-mail : thierry.alquier@umontreal.ca

APPOINTMENTS

07/09-Present	Member, Montréal Diabetes Research Center
07/09-Present	Principal Investigator, Centre de Recherche du CHUM
07/09-Present	Assistant Professor, Departement of Medecine, University of Montréal
07/09-Present	Adjunct Assistant Professor, Departement of Pathology and Cellular Biology, University of Montréal

EDUCATION & TRAINING

02/06-06/09	Post-doctoral fellow in Dr. Vincent Poitout's laboratory Montréal Diabetes Research Center, CR-CHUM, Montréal
02/03 – 01/06	Post-doctoral fellow in Dr. Barbara Kahn's laboratory, BIDMC, Harvard Medical School, Boston.
11/99- 12/02	PhD Physiology and Cellular Biology, University Paul Sabatier, Toulouse, France. **PhD thesis:** Importance of the insulin-responsive glucose transporter GLUT4 in the central nervous system: Physiological roles and cellular mechanisms.

HONORS & AWARDS

07/06-06/09	Canadian Diabetes Association post-doctoral fellowship
01/09	Keystone Symposia award "Type 2 Diabetes and Insulin Resistance"
03/07	ADA award "Translating Islets Biology into Diabebes Therapy"
06/06	NIDDK award "Imaging the pancreatic beta cell"
07/03-07/04	American Diabetes Association postdoctoral fellowship.
01/03	Junior Researcher Award from Fondation Bettencourt-Schueller
11/99-12/02	PhD fellowship from the Ministère Français de la Recherche
09/98	M.Sc. fellowship from Ecole Doctorale de Physiopathologie, Toulouse

GRANT SUPPORT

07/09-07/10	Principal Investigator. Role of the hypothalamo-pancreatic axis in the pathogenesis of type 2 diabetes. ALFEDIAM-Novartis (France)- $31000
11/07-11/09	Co-investigator (10%). Brain fatty-acid sensing in relationship with nervous control of insulin secretion and hepatic glucose production. European Fondation for the Study of Diabetes (Principal Investigator Pr Christophe Magnan, Paris, France)-$140 000

PUBLICATIONS

Alquier T., Peyot ML., Latour MG., Kebede M., Sorensen C.M., Gesta S., Kahn RC., Smith RD., Jetton LT., Metz T., Prentki M., Poitout V. Deletion of GPR40 impairs glucose-induced insulin secretion in vivo in mice without affecting fuel intracellular metabolism in islets. In revision *Diabetes*

Alquier T., Poitout V. (2009) GPR40 : Good Cop, Bad Cop ? *Diabetes;* 58(5) :1035-36

Kebede M., **Alquier T.,** Latour M., Semache M., Tremblay C. and Poitout V. (2008) Fatty acid receptor GPR40 plays a role in insulin secretion in vivo after high-fat feeding. *Diabetes*; 57(9) : 2432-37.

Pénicaud L., Benani A., Fioramonti X., **Alquier T.**, Guillod E., Lorsignol A., Leloup C. (2007) Détecteurs de glucose et régulation de la prise alimentaire. *Cahiers de Nutrition et de Diététique*; 42(3) : 134-138

Latour M., **Alquier T.**, Oseid E., Tremblay C. , Jetton T., Luo J., Lin D. and Poitout V. (2007) GPR40 is Necessary but not Sufficient for Fatty-Acid Stimulation of Insulin Secretion *in Vivo*. *Diabetes*; 56(4) : 1087-94

Alquier T., Kawashima J., Tsuji Y. and Kahn BB. (2007) Role of hypothalamic AMP-kinase and brain glycogen in the impaired counterregulatory response induced by repetitive neuroglucopenia. *Endocrinology*; 148(3): 1367-75

Alquier T., Leloup C., Lorsignol A. and Pénicaud L. (2006) Translocable glucose transporters in the brain: Where are we in 2006 ? *Diabetes*; 55 (Suppl. 2): S131-S138

Alquier T., Martin TL., Azakura K., Furukawa N., Preitner F. and Kahn BB (2006). Diet-induced obesity alters AMP-kinase activity in hypothalamus and skeletal muscle. *J Biol Chem* ; 281(28) :18933-18941.

Leloup C., Magnan C., Bonnet E., Tourrel-Cuzin C., **Alquier T.**, Offer G., Carriere A., Fernandez Y., Ktorza A., Casteilla L., Burcelin R. and Pénicaud L. (2006). Mitochondrial Reactive Oxygen Species Are Required For Hypothalamic Glucose Sensing. *Diabetes*; 55(7): 2084-2090.

Kahn B.B., **Alquier T.**, Carling D., Hardie D.G. (2005). AMP-activated protein kinase: Ancient energy gauge provides clues to modern understanding of metabolism. *Cell Metabolism* ; 1(1) :15-25.

Alquier T., Kahn B.B. (2004). Peripheral signals set the tone for central regulation of metabolism. *Endocrinology ;* 145 (9) : 4022-4.

Minokoshi Y., **Alquier T.**, Furukawa N., Kim Y.B., Lee A., Xue B., Mu J., Foufelle F., Ferré P., Birnbaum M. J., Stuck B. and. Kahn B.B. (2004). AMP-Kinase Regulates Satiety by Responding to Hormonal and Nutrient Signals in the Hypothalamus. *Nature* ; 428(6982) : 569-74.

Leloup C., Magnan C., **Alquier T**., Mistry S., Offer G., Arnaud E., Kassis N., Ktorza A., Pénicaud L. (2004) Intrauterine hyperglycemia increases insulin binding sites but not glucose transporters expression in discrete brain areas in rat term foetuses. *Pediatrics Research*; 56(2) : 263-7.

Guillod E., Lorsignol A., **Alquier T**., and Pénicaud L. (2004) Acute intracarotid glucose injection towards the brain induces specific c-fos activation in hypothalamic nuclei :

involvement of astrocytes in cerebral glucose-sensing in rats. *Journal of Neuroendocrinology* ; 16(5) : 464-71.

Alquier T., Leloup C., Atef N., Lorsignol A., Fioramonti X., Pénicaud L. (2003) Cerebral insulin increases brain response to glucose. *Journal of Neuroendocrinology*;15(1) : 75-9.

Pénicaud L., Leloup C., Lorsignol A., **Alquier T.** (2002) Insulin resistance and the autonomic nervous system. In : Insulin resistance and insulin resistance syndrome, *Frontiers in Animal Diabetes.*

Pénicaud L., Leloup C., Lorsignol A., **Alquier T.**, Guillod E. (2002) Brain glucose sensing mechanism and glucose homeostasis. *Curr Opin Clin Nutr Metab Care*. 5 : 539-43

Alquier T., Leloup C., Arnaud E., Magnan C., Pénicaud L. (2001) Altered GLUT4 mRNA levels in specific brain areas of hyperglycemic-hyperinsulinemic rats. *Neurosci. Lett.* 308 : 75-78.

INVITED LECTURE

-Role of AMP-activated protein kinase in the hypothalamic control of energy balance. Séminaire d'Endocrinologie du Centre de Recherche du Centre Hospitalier de l'Université de Montréal, Hôtel Dieu, Montréal, Québec, 29 juin 2007.

-AMP-activated protein Kinase: A key player in the hypothalamic control of energy homeostasis. Centre de Recherche de l'Hôpital Laval, Sainte-Foy, Québec, 13 Mars 2007.

TEACHING

11/99- 12/02	Assistant teacher in Physiology and teacher of practice courses in Physiology (230 hrs) at University Paul Sabatier and for the "Centre National des Arts et Métiers ", Toulouse, France.
Mars 2008	Guest lecturer for BSc course on pancreatic hormones (University of Montréal)