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Personal Information

Identification

Mrs. Véronique Michaud

Correspondence language: French

Sex: Female

Date of Birth: 11/08

Canadian Residency Status: Canadian Citizen

Country of Citizenship: Canada

Language Skills

Language	Read	Write	Speak	Understand
English	Yes	Yes	Yes	Yes
French	Yes	Yes	Yes	Yes

Address

The primary address is denoted by (*)

Mailing	Primary Affiliation (*)
64 rue St-Paul Ouest, #511 Montreal H2Y 4B8 Canada, Quebec	900 St-Denis street Centre de recherche du CHUM R08-480 Montreal H2X 0A9 Canada, Quebec

Telephone

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Laboratory (*)	514-8908000 extension: 15812
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Email

The primary email is denoted by (*)

Work (*)	veronique.michaud.chum@ssss.gouv.qc.ca
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User Profile

Disciplines Trained In: Pharmacology, Pharmacy

Research Disciplines: Genetics, Pharmacy

Areas of Research: Diabetes, Drug Administration and Drug Interactions, Drug Metabolism, Pharmacokinetics, Polymorphism

Fields of Application: Biomedical Aspects of Human Health, Pathogenesis and Treatment of Diseases

Research Specialization Keywords: Cell culture, Cytochromes P450, Drug analysis, Drug metabolism, Liquid chromatography, PCR, Pharmacogenetics, Pharmacokinetics

Education

Degrees

2011/8 - 2012/4	Certificate - NIH principles in clinical pharmacology - Clinical pharmacology - National Institutes of Health - Completed Supervisors: NA
2010/4 - 2012/4	Post-doctorate - Postdoctoral fellowship - Clinical pharmacology - Indiana University - Completed Supervisors: David Flockhart
2009/2 - 2010/4	Post-doctorate - Postdoctoral fellowship - HIV infection - Lady Davis Institute for Medical Research - Completed Supervisors: Mark Wainberg
2004/1 - 2009/1	Doctorate - PhD's of Pharmaceutical Sciences - Pharmacokinetics- Pharmacogenetics - Université de Montréal - Completed Supervisors: Jacques Turgeon
2001/9 - 2003/12	Master's Thesis - Master's of Pharmaceutical Sciences - Pharmacy - Université de Montréal - Completed Supervisors: Jacques Turgeon
1997/9 - 2001/5	Bachelor's - Bachelor's pharmacy - Pharmacy - Université Laval - Completed Supervisors: NA

Credentials

2001/9 -	Pharmacist - Ordre des Pharmaciens du Québec
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Recognitions

2010/6 -	William Mahon Trainee Presentation Award - Prize / Award Canadian Society of Pharmacology and Therapeutics
2009/5 -	FESP Dean Honour List - Distinction Université de Montréal Amount: 0 Research Disciplines: Pharmacy
2009/2 - 2012/1	Bisby Fellows award - Prize / Award Canadian Institutes of Health Research

2008/7 -	AFPC Futur Academic Leader Award - Prize / Award Canadian Association of Faculties of Pharmacy Amount: 0
1997/9 - 1998/10	Bourse d'excellence académique de la Caisse Populaire Desjardins - Prize / Award Caisse Populaire Desjardins Amount: 500

Employment

Academic Work Experience

2012/4 -	Assistant professor Université de Montréal - Pharmacy - Faculty of Pharmacy
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Non-academic Work Experience

2001/9 -	Pharmacist - Pharmacy
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Affiliations

The primary affiliation is denoted by (*)

(*) 2012/4 -	Assistant professor - Faculty of pharmacy - Université de Montréal
2012/4 -	Researcher - Research Centre (CRCHUM) - Centre hospitalier de l'université de Montréal

Research Funding History

Awarded

2013/10 - 2017/11 Principal Investigator	Effects of Type 2 Diabetes (T2D) on drug disposition and CYP450 activities; a special look at extra-hepatic metabolism.	
	Funding Sources	
	2013/10 - 2017/9	Nutrition, metabolism and diabetes Canadian Institutes of Health Research (CIHR) Total Funding: 507268 (Canadian dollar) Funding Competitive?: Yes
2012/4 - 2017/3 Co-investigator	The first characterization of functional CYP450 activities in human cardiac myocytes: Modulation of cardiac potassium channel block due to local metabolism of QT-prolonging drugs Co-investigator : Benoît Drolet; Chantale Simard; Principal Investigator : Turgeon, Jacques	
	Funding Sources	
	2012/4 - 2017/3	Operating grant Canadian Institutes of Health Research (CIHR) Total Funding: 807020 (Canadian dollar) Funding Competitive?: Yes
2012/7 - 2015/6 Co-investigator	The first characterization of functional CYP450 activities in human cardiac myocytes: Modulation of cardiac potassium channel block due to local metabolism of QT-prolonging drugs	

	Principal Investigator : Turgeon, Jacques	
	Funding Sources	
	2012/7 - 2015/6	Operating grant Heart and Stroke Foundation of Canada (HSFC) Total Funding: 60000 (Canadian dollar) Funding Competitive?: Yes
2012/4 - 2014/3 Principal Investigator	Start-up funding.	
	Funding Sources	
	2012/4 - 2014/3	Fonds d'établissement nouveau chercheur Centre Hospitalier de L'Université de Montréal (Mtl, QC) Total Funding: 150000 (Canadian dollar) Funding Competitive?: No

Completed

2012/7 - 2013/6 Principal Investigator	Effects of type 2 diabetes on expression and activities of CYP450 drug-metabolizing enzymes	
	Principal Investigator : Véronique Michaud	
	Funding Sources	
	2012/7 - 2013/6	Research funds Rx&D Health Research Foundation Total Funding: 25000 (Canadian dollar) Funding Competitive?: Yes
2009/2 - 2012/1 Principal Applicant	Study of complex pharmacogenomic- pharmacokinetic host-pathogen interactions: application to HIV disease.	
	Funding Sources	
	2009/2 - 2012/1	Fellowship Canadian Institutes of Health Research (CIHR) Total Funding: 170000 (Canadian dollar) Funding Competitive?: Yes

Activities

Supervisory Activities

Student/Postdoctoral Supervision

Principal Supervisor	<p>Sophie Gravel - Master's Thesis - Universite de Montreal - In Progress Student Degree Start Date: 2013/10 Student Degree Expected Date: 2015/12 Project Description: Drug metabolism by CYP450 systems expressed within cardiac myocytes modulates drug levels and residence time in the vicinity of their effector site. . Locally expressed CYP450 isozymes have a little impact on the systemic drug levels but are key determinants of drug availability for action. The objective is to characterize the functional activity of CYP450 isozymes expressed in human cardiac myocytes and to determine their impact on metabolic profiles of clinically used cardiovascular drugs. In vitro incubation with heart microsomes will be performed to determine the involvement of cardiac CYP450 isozymes in the metabolism of drugs with cardiovascular actions (desired or undesired) such as pimozide, quetiapine, risperidone, amiodarone and losartan.</p>
Principal Supervisor	<p>Parissa Karimi - Master's Thesis - Universite de Montreal - In Progress Student Degree Start Date: 2013/9 Student Degree Expected Date: 2015/12 Project Description: The aim of this project is to evaluate the impact of T2D on intestinal CYP450s in humans. CYP450 expression levels and activities will be determined in intestinal biopsies obtained from T2D patients and age-matched non-diabetic subjects. mRNA (RT-PCR), protein quantification (LC-MS/MS) and in vitro incubations with CYP450 probe drug cocktails will be performed with microsomes prepared from duodenal biopsy specimens. Present Position: Master student</p>
Principal Supervisor	<p>Parasto Karimi - Master's Thesis - Universite de Montreal - In Progress Student Degree Start Date: 2013/9 Student Degree Expected Date: 2015/12</p>
Co-Supervisor	<p>Yat Hei Leung - Doctorate - Universite de Montreal - In Progress Student Degree Start Date: 2013/3 Student Degree Expected Date: 2017/2 Project Description: Muscle injury, including myopathy, is a common side effect of some drugs, and particularly of statins. We hypothesized that these side effects are related to intracellular accumulation of lactic acid through monocarboxylate transporters, MCT1 and MCT4. Our objective is to investigate whether the transport of lactic acid is modulated by statins and other acidic drugs. Present Position: Master student</p>

Contributions

Presentations

2012-07-04	<p>"Basic concepts in pharmacokinetics", SSM4, the 4th Summer School on Medicines, Canada, Quebec, Montreal Main Audience: Knowledge User Invited?: Yes</p>
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2012-04-20	"La médecine prédictive et personnalisée.", 15e Congrès de l'Association médicale du Québec : Modernisez votre pratique médicale., Canada, Quebec, Montreal Main Audience: Knowledge User Invited?: Yes
2011-04-17	"The role of pharmacogenetics for cardiovascular drug effects. A special look at warfarin and clopidogrel.", Certificate program of predictive and personalized medicine in daily medical practice. Yeditepe University, Faculty of medicine and Faculty of pharmacy., Turkey, Istanbul Main Audience: Knowledge User Invited?: Yes
2010-06-10	"The influence of pharmacogenetics for warfarin dose requirements.", Symposium on pharmacogenetics and cardiovascular disease. Third International Meeting on Pharmacy and Pharmaceutical Sciences., Turkey, Istanbul Main Audience: Knowledge User Invited?: Yes

Publications

PubMed Articles

2013-04-30	Michaud V , Kreutz Y , Skaar T , Ogburn E , Thong N , Flockhart DA , Desta Z , "Efavirenz-mediated induction of omeprazole metabolism is CYP2C19 genotype dependent.", The pharmacogenomics journal PubMed ID: 23629159 Funding Sources: National Institutes of Health (NIH) (USA) - R01 GM078501/ GM/NIGM; National Institutes of Health (NIH) (USA) - R56 GM067308/GM/ NIGM
2013-02-04	Skrobik Y , Leger C , Cossette M , Michaud V , Turgeon J , "Factors Predisposing to Coma and Delirium: Fentanyl and Midazolam Exposure; CYP3A5, ABCB1, and ABCG2 Genetic Polymorphisms; and Inflammatory Factors.", Critical care medicine, 41(4) PubMed ID: 23385102
2013-01-16	Michaud V , Turgeon J , "DOMPERIDONE AND SUDDEN CARDIAC DEATH: HOW MUCH LONGER SHOULD WE WAIT?", Journal of cardiovascular pharmacology PubMed ID: 23328387
2012-07-01	Michaud V , Bar-Magen T , Turgeon J , Flockhart D , Desta Z , Wainberg MA , "The Dual Role of Pharmacogenetics in HIV Treatment: Mutations and Polymorphisms Regulating Antiretroviral Drug Resistance and Disposition.", Pharmacological reviews, 64(3) PubMed ID: 22759796
2012-03-01	Michaud V , Ogburn E , Thong N , Aregbe AO , Quigg TC , Flockhart DA , Desta Z , "Induction of CYP2C19 and CYP3A activity following repeated administration of efavirenz in healthy volunteers.", Clinical pharmacology and therapeutics, 91(3) PubMed ID: 22318618

2011-04-20	O'Hara GE , Philippon F , Gilbert M , Champagne J , Michaud V , Charbonneau L , Pruneau G , Hamelin BA , Geelen P , Turgeon J, "Combined Administration of Quinidine and Propafenone for Atrial Fibrillation: The CAQ-PAF Study.", Journal of clinical pharmacology PubMed ID: 21508180
2010-09-10	Bar-Magen T , Donahue DA , McDonough EI , Kuhl BD , Faltenbacher VH , Xu H , Michaud V , Sloan RD , Wainberg MA, "HIV-1 subtype B and C integrase enzymes exhibit differential patterns of resistance to integrase inhibitors in biochemical assays.", AIDS (London, England), 24(14) PubMed ID: 20647908
2010-04-01	Michaud V , Turgeon J, "Assessment of Competitive and Mechanism-Based Inhibition by Clarithromycin: Use of Domperidone as a CYP3A Probe-Drug Substrate and Various Enzymatic Sources Including a New Cell-Based Assay with Freshly Isolated Human Hepatocytes.", Drug metabolism letters, 4(2) PubMed ID: 20446912
2010-04-01	Michaud V , Simard C , Turgeon J, "Characterization of CYP3A Isozymes involved in the Metabolism of Domperidone: Role of Cytochrome b(5) and Inhibition by Ketoconazole.", Drug metabolism letters, 4(2) PubMed ID: 21281268
2010-01-01	Michaud V , Frappier M , Dumas MC , Turgeon J, "Metabolic activity and mRNA levels of human cardiac CYP450s involved in drug metabolism.", PloS one, 5(12) PubMed ID: 21179487
2009-01-01	Fenneteau F , Turgeon J , Couture L , Michaud V , Li J , Nekka F, "Assessing drug distribution in tissues expressing P-glycoprotein through physiologically based pharmacokinetic modeling: model structure and parameters determination.", Theoretical biology & medical modelling, 6 PubMed ID: 19146691
2008-05-01	Michaud V , Vanier MC , Brouillette D , Roy D , Verret L , Noel N , Taillon I , O'Hara G , Gossard D , Champagne M , Goodman K , Renaud Y , Brown A , Phillips M , Ajami AM , Turgeon J, "Combination of phenotype assessments and CYP2C9-VKORC1 polymorphisms in the determination of warfarin dose requirements in heavily medicated patients.", Clinical pharmacology and therapeutics, 83(5) PubMed ID: 18030307
2007-06-01	Michaud V , Simard C , Turgeon J, "An improved HPLC assay with fluorescence detection for the determination of domperidone and three major metabolites for application to in vitro drug metabolism studies.", Journal of chromatography. B, Analytical technologies in the biomedical and life sciences, 852(1-2) PubMed ID: 17379582
2006-12-01	Michaud V , Mouksassi MS , Labbé L , Bélanger PM , Ferron LA , Gilbert M , Grech-Bélanger O , Turgeon J, "Inhibitory effects of propafenone on the pharmacokinetics of caffeine in humans.", Therapeutic drug monitoring, 28(6) PubMed ID: 17164694
2006-06-06	Turgeon J , Pharand C , Michaud V, "Understanding clopidogrel efficacy in the presence of cytochrome P450 polymorphism.", CMAJ : Canadian Medical Association journal = journal de l'Association medicale canadienne, 174(12) PubMed ID: 16754901

2004-01-01	Simard C , Michaud V , Gibbs B , Massé R , Lessard E , Turgeon J, "Identification of the cytochrome P450 enzymes involved in the metabolism of domperidone.", Xenobiotica; the fate of foreign compounds in biological systems, 34(11-12) PubMed ID: 15801545
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Journal Articles

2012/9 Submitted First Listed Author	Michaud V, Sirhan-daneau A, Manzini C, Schwab R, Demers A, Roy I, Lafrenchi P, Chauny JM, St-Onge M, Lavigne G, Turgeon J, "Role of CYP2D6 in the pharmacokinetics and pharmacodynamics of oxycodone in healthy volunteers during co-treatment with placebo or quinidine.", Br J Clin Pharmacol Refereed?: Yes Number of Contributors: 11
2012/6 Published First Listed Author	"Les interactions médicamenteuses; fictions ou réalités.", Bulletin de la Croix Bleue du Québec Refereed?: No Number of Contributors: 2
2011/5 Published First Listed Author	Jacques Turgeon David Flockhart Mark A. Wainberg, "Rôle de la pharmacogénétique dans la réponse au traitement antirétroviral de l'infection par le VIH", Virologie, 15(3), 17 Refereed?: Yes Number of Contributors: 4
2010/10 Published First Listed Author	"Inhibiteurs de la pompe à proton, CYP2C19 et clopidogrel, où en sommes-nous?", Pharmactuel, 43(4), 222-224 Refereed?: No Number of Contributors: 2
2008/12 Published First Listed Author	"La médecine personnalisée frappe à votre porte.", Le Médecin du Québec, 43(12), 75-79 Refereed?: No Number of Contributors: 2
2008/12 Published Last Author	"1, 2, 3 Prescription; 4, 5, 6 Interactions.", Le Médecin du Québec, 43(12), 39-44 Refereed?: No Number of Contributors: 2

Book Chapters

2009/ Published Co-Author	"The role of ethnicity in manging cardiovascular patients", Cardiovascular genetics and genomics(3), Dan M Roden Refereed?: Yes Authors: Raymond Hreiche Veronique Michaud Jacques Turgeon
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