ISABELLE COTE, PH.D.

Research Assistant Professor, University of Florida, Department of Pharmacodynamics
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EDUCATION

UNIVERSITÉ DE MONTRÉAL — Montreal, Quebec (Canada)
Exercise Physiology, Ph.D. — 04/2014

UNIVERSITÉ DE MONTRÉAL — Montreal, Quebec (Canada)
Kinesiology, B.Sc. — 05/2009

PROFESSIONAL EXPERIENCE

UNIVERSITY OF FLORIDA — Gainesville, FL
Research Assistant Professor, UFGI and Department of Pharmacodynamics — (01/2022- Present)

UNIVERSITY OF FLORIDA — Gainesville, FL
Assistant Scientist, Department of Pediatrics — (02/2021-01/2022)

UNIVERSITY OF FLORIDA — Gainesville, FL
Postdoctoral Associate, Department of Pharmacology/Pediatrics — (05/2015- 02/2021)

UNIVERSITÉ DE MONTRÉAL — Montreal, Quebec (Canada)
Lecturer, Department of Kinesiology — (2012- 02/2021)

PUBLICATIONS

International Union of Basic and Clinical Pharmacology CXIII: Nuclear Receptor Superfamily-Update ***Pharmacol Rev.*** (2023)
Thomas P Burris, Ian Mitchelle S de Vera, **Isabelle Côté**, Colin A Flaveny, Udayanga S Wanninayake, Arindam Chatterjee, John K Walker, Nickolas Steinauer, Jinsong Zhang, Laurel A Coons, Kenneth S Korach, Derek W Cain, Anthony N Hollenberg, Paul Webb, Douglas Forrest, Anton M Jetten, Dean P Edwards, Sandra L Grimm, Sean Hartig, Carol A Lange, Jennifer K Richer, Carol A Sartorius, Marc Tetel, Cyrielle Billon, Bahaa Elgendy, Lamees Hegazy, Kristine Griffett, Nahuel Peinetti, Kerry L Burnstein, Travis S Hughes, Sadichha Sitaula, Keitch R Stayrook, Alexander Culver, Meghan H Murray, Brian N Finck, John A Cidlowski

Induction of antigen-specific tolerance by hepatic AAV immunotherapy regardless of T cell epitope usage or mouse strain background ***Mol Ther Methods Clin Dev*** (2023)
Geoffrey D Keeler, Cristina D Gaddie, Addelynn S Sagadevan, Kevin G Senior, **Isabelle Côté**, Michaela Rechdan, Daniel Min, David Mahan, Bianca Poma, Brad E Hoffman

Commentary: nonalcoholic or metabolic dysfunction-associated fatty liver disease? The epidemic of the 21st century in search of the most appropriate name ***Metabolism- Clinical and Experimental*** (2020)
Stergios A. Polyzos, Eun Seok Kang, Emmanuel A. Tsochatzis, Stergios Kechagias, Mattias Ekstedt, Stavra

Xanthakos, Amedeo Lonardo, Alessandro Mantovani, Herbert Tilg, **Isabelle Côté**, Aldo Grefhorst, Michael W. Greene, David Araujo-Vilar, Anna Alisi, Felipe Casanueva, Christos S. Mantzoros
Estradiol and leptin have separate but additive anorexigenic effects and differentially target fat mass in rats ***Journal of Neuroendocrinology*** (2018)
Isabelle Côté, Sara M. Green, Joshua F. Yarrow, Christine F. Conover, Hale Z. Toklu, Drake Morgan, Christy S. Carter, Nihal Tümer, and Philip J. Scarpace

Limiting feeding to the active phase reduces blood pressure without the necessity of caloric reduction or fat mass loss ***American Journal of Physiology- Regulatory, Integrative and Comparative Physiology*** (2018)
Isabelle Côté, Hale Toklu, Sara Green, Drake Morgan, Christy Carter, Nihal Tümer, and Philip Scarpace

iBAT sympathetic innervation is not required for body weight loss induced by central leptin delivery. ***American Journal of Physiology-Endocrinology and Metabolism.*** (2018)
Isabelle Côté, Yasemin Sakarya, Sara Green, Drake Morgan, Christy Carter, Nihal Tümer, and Philip J. Scarpace
Activation of the central melanocortin system in rats persistently reduces body and fat mass independently of caloric reduction. ***Canadian Journal of Physiology and Pharmacology*** (2018)
Isabelle Côté, Sara M. Green, Drake Morgan, Christy Carter, Nihal Tümer, and Philip J. Scarpace

Differential physiological responses to central leptin overexpression in male and female rats.
Journal of Neuroendocrinology (2017)
Isabelle Côté, Sara M. Green, Hale Z. Tokly, Drake Morgan, Christy S. Carter, Nihal Tümer, and Philip J. Scarpace

Activation of the central melanocortin system chronically reduces body weight without the necessity of long-term caloric restriction. ***Canadian Journal of Physiology and Pharmacology*** (2017)
Isabelle Côté, Yasemin Sakarya, Nataliya Kirichenko, Drake Morgan, Christy Carter, Nihal Tümer, and Philip J. Scarpace

High dietary cholesterol and ovariectomy in rats repress gene expression of key markers of VLDL and bile acid metabolism in liver. ***Lipids in health and disease*** (2015)
Zahra Farahnak, **Isabelle Côté**, Émilienne T. Ngo Sock, and Jean-Marc Lavoie

Impaired VLDL assembly: a novel mechanism contributing to hepatic lipid accumulation following ovariectomy and high fat/high cholesterol diets? ***British Journal of Nutrition*** (2014)
Isabelle Côté, Natalie A. Chapados, and Jean-Marc Lavoie

Loss of Ovarian Estrogens Causes Only Mild Deterioration of Glucose Homeostasis in Female ZDF Rats Preventable by Voluntary Running Exercise. ***Hormone and metabolic research*** (2014)
Raynald Bergeron, Junior S. Mentor, **Isabelle Côté**, Émilienne T. Ngo Sock, Rémi Rabasa-Lhoret R, and Jean-Marc Lavoie

An atherogenic diet decreases liver FXR gene expression and causes severe hepatic cholesterol accumulation: effect of endurance training. ***European Journal of Nutrition*** (2012)
Isabelle Côté, Émilienne Tudor Ngo Sock, Émile Lévy, and Jean- Marc Lavoie

Ovariectomy stimulates hepatic fat and cholesterol accumulation in high-fat diet-fed rats. ***Hormone and metabolic research*** (2012)
Émilienne Tudor Ngo Sock, **Isabelle Côté**, Junior Mentor, Denis Prud'homme, Raynald Bergeron, and Jean-Marc Lavoie.

Liver fat accumulation may be dissociated from adiposity gain in ovariectomized rats. ***Climacteric*** (2011)
Isabelle Côté, Siham Yasari, Abdolnaser Pighon, Razieh Barsalani, Rémi Rabasa-Lhoret, Denis Prud'homme, and Jean-Marc Lavoie

In preparation:

Novel Synthetic REV-ERB antagonists accelerate muscle repair
Isabelle Côté, Bahaa Elgendy, Ryan Sanders, Aurore G. Valfort, Thomas Koelblen, Matthew E. Hayes, Kyle Lem, Sheryl Burris, Feng Yue, and Thomas P. Burris

The use of Exercise Mimetics to combat Disuse Atrophy
Isabelle Côté, Bahaa Elgendy, Ryan Sanders, Aurore G. Valfort, Thomas Koelblen, Matthew E. Hayes, Kyle Lem, Sheryl Burris, Elizabeth Barton, Joshua Yarrow, Christine Conover, Bryan A and Thomas P. Burris
Regulation of Circadian Metabolism by Nuclear Receptors; ***Nature Reviews Endocrinology***
(Invited Review, In preparation).
Isabelle Côté, Kristine Griffett, and Thomas P. Burris.

Gene Immunotherapies Protect Against Mouse Models of severe Relapsing-Remitting Multiple Sclerosis.
Isabelle Côté, Kevin Senior, Geoffrey D. Keeler, Cristina D. Gaddie, Addelynn S. Sagadevan, and Brad E. Hoffman

Liver Overexpression of Aquaporin 4 via AAV protects from neurological impairments and neuroinflammation in a mouse model of NMO
Isabelle Côté, Geoffrey D. Keeler, Cristina D. Gaddie, Addelynn S. Sagadevan, and Brad E. Hoffman

PRESENTATIONS

American Association of Immunologist Meeting, Honolulu (USA), May 2020 (oral presentation), PLP gene-immunotherapy ameliorates disease and prevents epitope spreading in mouse models of relapsing-remitting Multiple Sclerosis
Isabelle Côté, Geoffrey D. Keeler, Addelynn Sagadevan, Cristina D Gaddie, and Brad E Hoffman

American Association of Immunologist, Honolulu (USA), May 2020, AAV Gene Immunotherapy Reverses Multiple Sclerosis-Like Autoimmune Disease in Genetically Diverse Mice
Geoffrey D. Keeler**, Isabelle Côté,** Cristina D. Gaddie, Addelynn Sagadevan, Brad E. Hoffman

American Society of Gene and Cell Theray Meeting, Boston (USA) May 2020, AAV Gene Immunotherapy Reverses MS-like Disease in Genetically Diverse Mice
Geoffrey D. Keeler**, Isabelle Côté,** Cristina D. Gaddie, Addelynn Sagadevan, and Brad E. Hoffman

American Society of Gene and Cell Theray Meeting, Boston (USA) May 2020, AAV.PLP Stops Disease and Prevents Epitope Spreading in a Model of Relapsing-Remitting Multiple Sclerosis
Isabelle Côté, Brad E. Hoffman, Addelynn Sagadevan, Cristina D. Gaddie, Geoffrey D. Keeler

American Society of Gene and Cell Theray Meeting, Boston (USA) May 2020, MBP-specific gene-immunotherapy prevents and reverses severe disease in a mouse model of Multiple Sclerosis
Isabelle Côté, Addelynn S. Sagadevan, Geoffrey D. Keeler, Cristina D. Gaddie1, and Brad E. Hoffman

The Annual European Hypertension meeting, Barcelona (Spain) June 2018, Estradiol and Leptin Overexpression have Independent Modes of Action of Decreased Food Intake and Body Weight in Males rats
Isabelle Côté, Sara M. Green, Drake Morgan, Christy S. Carter, Nihal Tümer, and Philip J.

American Society of Gene and Cell Theray Meeting, Chicago (USA) May 2020, Reversal of Multiple Sclerosis in Multiple Mouse Models.
Geoffrey D, Keeler, **Isabelle Côté,** Cristina D. Gaddie, and Brad E. Hoffman

American Association of Immunologist Meeting, Austin (USA) May 2018, Gene Therapy Induced Tregs: A treatment for relapsing-remitting MS in mice.
Geoffrey D, Keeler**, Isabelle Côté,** Cristina D. Gaddie, and Brad E. Hoffman

American Association of Immunologist Meeting, Austin (USA) May 2018, The mechanism of preventing EAE via gene therapy
Geoffrey D, Keeler**, Isabelle Côté,** Cristina D. Gaddie, and Brad E. Hoffman

ACTRIMS Forum, San Diego (USA), February 2018, An In Vivo Approach to Induce Immune Tolerance, Inhibit Neuro-Inflammation and Disease, Regardless of Genetic Background
Geoffrey D, Keeler**, Isabelle Côté,** Cristina D. Gaddie, and Brad E. Hoffman

15th Annual World Congress Insulin Resistance Diabetes & Cardiovascular Disease, Los Angeles (USA) November 2017, Female Rats Display Greater Responsiveness to Leptin Overexpression and Decreased Susceptibility to Leptin Resistance Compared with Males
Isabelle Côté, Sara M. Green, Hale Z. Toklu, Drake Morgan, Christy S. Carter, Nihal Tümer, and Philip J. Scarpace

6th ICCR Congress on Chronic Societal Cardiometabolic Diseases, Quebec City (Canada) May 2017, Feeding schedule does not appear to play a role on energy homeostasis in rats
Isabelle Côté, Hale Z. Toklu, Nihal Tümer, and Philip J. Scarpace

6th ICCR Congress on Chronic Societal Cardiometabolic Diseases, Quebec City (Canada) May 2017, Interscapular brown adipose tissue thermogenesis is not required for central leptin signaling-induced body weight loss
Isabelle Côté, Yasemin Sakarya, Hale Z. Toklu, Nihal Tümer, and Philip.J. Scarpace

27th European Meeting on Hypertension and Cardiovascular Protection, Milan (Italy) June 2017, Feeding schedule reduces blood pressure but does not protect against diet-induced obesity in rats
Isabelle Côté, Philip J Scarpace, Hale Z. Toklu, and Nihal Tümer

St. Louis University, Department of Pharmacology & Physiology Invited speaker, St. Louis, MO (USA) September 2016 Hormonal, nutritional, and pharmacological regulation of abdominal and liver fat deposition

Experimental Biology 2016, San Diego, CA (USA) April 2016, Long-term body weight regulation by the Central Melanocortin System appears to be dissociated from food intake.
Isabelle Côté, Yasemin Sakarya, Natalyia Kirichenko, Drake Morgan, Christy Carter, Nihal Tümer, and Philip J. Scarpace

T cells: regulation and effector functions (a Keystone symposia), Snowbird, UT (USA) March 2015, RORα and RORγt coordinately regulate metabolic processes essential for TH17 cell development and function
Isabelle Côté, Sean Campbell, and Laura A. Solt

Experimental Biology, Boston, MA (USA) April 2013, Dietary cholesterol interacts with dietary fats by stimulating hepatic lipids accumulation in Ovx rats: possible defect of VLDL assembly.
Isabelle Côté, and Jean-Marc Lavoie

American Diabetes Association Congress, San Diego, CA (USA) June 2011, Effects of ovariectomy and physical activity on glucose homeostasis of ZDF rats : a MONET study. Junior Simpson Mentor, **Isabelle Côté**, Abdolnaser Pighnon, Jean-Marc Lavoie, and Raynald Bergeron

Congrès de l'Association francophone pour le savoir, Sherbrooke, QC (Canada) May 2011, Interaction diète hyperlipidémique- ovariectomie sur l'accumulation hépatique des lipides et de l'expression de marqueurs moléculaires.
Émilienne Tudor Ngo Sock, **Isabelle Côté**, Junior Simpson Mentor, Raynald Bergeron, and Jean-Marc Lavoie

International Congress on Abdominal Obesity, Buenos Aires, (Argentina) Febuary 2011, An atherogenic diet decreases liver FXR gene expression and causes severe hepatic steatosis: effect of endurance training.
Isabelle Côté, Émilienne Tudor Ngo Sock, Émile Lévy, and Jean-Marc Lavoie

Canadian Obesity Network, Montreal, QC(Canada) April 2011, An atherogenic diet decreases liver FXR gene expression and causes severe hepatic steatosis: effect of endurance training.
Isabelle Côté, Émilienne Tudor Ngo Sock, Émile Lévy, and Jean-Marc Lavoie

Quebec Society of Lipids, Nutrition and metabolism, Ste-Foy, QC (Canada) May 2011, An atherogenic diet decreases liver FXR gene expression and causes severe hepatic steatosis: effect of endurance training.
Isabelle Côté, Émilienne Tudor Ngo Sock, Émile Lévy, and Jean-Marc Lavoie

Canadian Obesity Network, Ottawa, ON (Canada) May 2010, Do ovariectomized rats resistant to adiposity gain are protected against hepatic steatosis?
Isabelle Côté, Razieh Barsalani, and Jean-Marc Lavoie

Quebec Society of Lipids, Nutrition and metabolism, Ste-Foy, QC (Canada) May 2010
Do ovariectomized rats resistant to adiposity gain are protected against hepatic steatosis?
Isabelle Côté, Razieh Barsalani, and Jean-Marc Lavoie

AWARDS AND HONORS

- Outstanding Abstract Award, American Society of Cell & Gene Therapy (2020)
- Outstanding Presentation Award, American Society of Cell & Gene Therapy, 2020
- Outstanding reviewer, Metabolism- Clinical and Experimental (2017-Present)
- Kinesium Travel Award, Université de Montréal, 2013
- FESP Scholarship (University of Montreal), 2011
- Travel Award, Quebec Government, 2011

FUNDING

University of Florida; Gainesville FL
Office of Research, Space Research Initiative Pilot Grant
PI: Burris, Thomas; Co-PI: **Cote, Isabelle**, Barton, Elizabeth, and Joshua Yarrow
11/2022-11/2023: $100K

University of Florida; Gainesville FL
Children's Miracle Network, Pilot Grant
PI: **Cote, Isabelle**
2020: $25K

University of Florida; Gainesville FL
Children's Miracle Network, Pilot Grant
PI: **Cote, Isabelle**
2018: $50K

EXTRA-CURRICULAR ACTIVITIES

- USP Mentor (2022- Present)
- Reviewer for American Journal of Physiology-Endocrinology and Metabolism (2018)
- Reviewer Metabolism- Clinical and Experimental (Since 2015)
- Reviewer for the Scripps Florida NSF REU research poster presentations (2015)
- Mentor for the Scripps Florida NSF REU (2015)
- Walk MS Committee Chair (2015)
- Reviewer for the British Journal of Nutrition (Since 2014)
- Member of the American Association of Immunologists (2014)

LEADERSHIP AND SERVICE

Disable Student Advocate: University of Florida, Gainesville FL
Assist severely impaired students to expedite the execution of ADA accommodations.