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## **Dr. Rami Al Batran**

Correspondence language: English

Sex: Male

Date of Birth: 1/07

Canadian Residency Status: Permanent Resident

Country of Citizenship: Syrian Arab Republic

## **Contact Information**

The primary information is denoted by (\*)

### **Address**

#### Home

609-10550 place de l'Acadie  
Montreal Quebec H4N 0B3  
Canada

#### Primary Affiliation (\*)

Pavillon Jean-Coutu  
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## **Dr. Rami Al Batran**

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### **Degrees**

- |                   |  |
|-------------------|--|
| 2010/10 - 2014/10 | Doctorate, Doctor of Philosophy (PhD), University Technology Mara (UiTM)<br>Degree Status: Completed |
| 2005/2 - 2009/10  | Bachelor's, B.Sc. of Pharmacy, Arab International University (AIU)<br>Degree Status: Completed       |

### **Recognitions**

- |                 |   |
|-----------------|---|
| 2019/9 - 2019/9 | EASD Travel Award<br>European Association for the Study of Diabetes           |
| 2019/6 - 2019/6 | ALPCO Diabetes Travel Grant<br>ALPCO  |
| 2019/3 - 2019/3 | Keystone Symposia Scholarship<br>Keystone Symposia                            |
| 2018/11         | Best Oral Presentation - Fakhreddin Jamali Symposium<br>University of Alberta |
| 2016/11         | Wu Hong Memorial Poster Prize<br>University of Alberta                        |

### **Employment**

- |                   |   |
|-------------------|---|
| 2020/1            | Assistant Professor<br>Faculty of Pharmacy, Faculty of Pharmacy, Université de Montréal   |
| 2015/11 - 2019/12 | Post-Doctoral Fellow<br>Department of Pharmaceutical Sciences, Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta |
| 2015/1 - 2015/10  | Post-Doctoral Fellow<br>Department of Pharmacology, Faculty of Medicine, University of Malaya   |
| 2010/10 - 2014/12 | PhD Candidate<br>Department of Dentistry, Faculty of Medicine and Dentistry, University Technology MARA                               |
| 2008/5 - 2008/8   | Summer Student<br>Department of Pharmacology, Faculty of Pharmacy, Universitat des Saarlandes   |

## Affiliations

The primary affiliation is denoted by (\*)

(\*) 2020/1 Assistant Professor, Faculty of Pharmacy, Université de Montréal

## Research Funding History

### Awarded [n=3]

2020/7 - 2025/7 Pharmacotherapy of Ketone Body Metabolism in Obesity

Principal Investigator

**Funding Sources:**

Canada Foundation for Innovation (CFI)

John R. Evans Leaders Fund

Total Funding - 402,479

Funding Competitive?: Yes

2020/4 - 2025/4 Medium Chain Triglycerides and Ketogenesis

Principal Investigator

**Funding Sources:**

Natural Sciences and Engineering Research Council of Canada (NSERC)

Discovery Grant – Individual

Total Funding - 120,000

Funding Competitive?: Yes

2020/4 - 2021/3 Medium Chain Triglycerides and Ketogenesis

Principal Applicant

**Funding Sources:**

Natural Sciences and Engineering Research Council of Canada (NSERC)

Discovery Launch Supplement – Individual

Total Funding - 12,500

Funding Competitive?: Yes

### Completed [n=2]

2017/7 - 2019/12 Post-Doctoral Fellowship

Principal Applicant

**Funding Sources:**

Canadian Institutes of Health Research (CIHR)

Post-Doctoral Fellowship

Total Funding - 135,000

Funding Competitive?: Yes

2016/7 - 2019/7 Post-Doctoral Fellowship

Principal Applicant

**Funding Sources:**

Canadian Diabetes Association

Post-Doctoral Fellowship - Personnel Awards

Total Funding - 120,000

Funding Competitive?: Yes

## Publications

### Journal Articles

1. Byrne NJ , Soni S , Takahara S , Ferdaoussi M , Al Batran R , Darwesh AM , Levasseur JL , Beker D , Vos DY , Schmidt MA , Alam AS , Maayah ZH , Schertzer JD , Seubert JM , Ussher JR , Dyck JRB. (2020). Chronically Elevating Circulating Ketones Can Reduce Cardiac Inflammation and Blunt the Development of Heart Failure. *Circulation. Heart failure*. 13(6): e006573.  
Published  
Refereed?: Yes
2. Eshreif A , Al Batran R , Jamieson KL , Darwesh AM , Gopal K , Greenwell AA , Zlobine I , Aburasayn H , Eaton F , Mulvihill EE , Campbell JE , Seubert JM , Ussher JR. (2020). I-Citrulline supplementation improves glucose and exercise tolerance in obese male mice. *Experimental physiology*. 105(2): 270-281.  
Published  
Refereed?: Yes
3. Al Nebaihi HM , Al Batran R , Ussher JR , Maayah ZH , El-Kadi AOS , Brocks DR. (2020). Dietary-Induced Obesity, Hepatic Cytochrome P450, and Lidocaine Metabolism: Comparative Effects of High-Fat Diets in Mice and Rats and Reversibility of Effects With Normalization of Diet. *Journal of pharmaceutical sciences*. 109(2): 1199-1210.  
Published  
Refereed?: Yes
4. Al Batran R , Gopal K , Capozzi ME , Chahade JJ , Saleme B , Tabatabaei-Dakhili SA , Greenwell AA , Niu J , Almutairi M , Byrne NJ , Masson G , Kim R , Eaton F , Mulvihill EE , Garneau L , Masters AR , Desta Z , Velázquez-Martínez CA , Aguer C , Crawford PA , Sutendra G , Campbell JE , Dyck JRB , Ussher JR. (2020). Pimozide Alleviates Hyperglycemia in Diet-Induced Obesity by Inhibiting Skeletal Muscle Ketone Oxidation. *Cell metabolism*. 31(5): 909-919.e8.  
Published  
Refereed?: Yes
5. Almutairi M , Gopal K , Greenwell AA , Young A , Gill R , Aburasayn H , Al Batran R , Chahade JJ , Gandhi M , Eaton F , Mailloux RJ , Ussher JR. (2020). The GLP-1 Receptor Agonist Liraglutide Increases Myocardial Glucose Oxidation Rates via Indirect Mechanisms and Mitigates Experimental Diabetic Cardiomyopathy. *The Canadian journal of cardiology*. 2020.02.098: 10.1016.  
Published  
Refereed?: Yes
6. Al Batran R , Gopal K , Aburasayn H , Eshreif A , Almutairi M , Greenwell AA , Campbell SA , Saleme B , Court EA , Eaton F , Light PE , Sutendra G , Ussher JR. (2019). The antianginal ranolazine mitigates obesity-induced nonalcoholic fatty liver disease and increases hepatic pyruvate dehydrogenase activity. *JCI insight*. 4(1): 2379-3708.  
Published  
Refereed?: Yes
7. Maayah ZH , McGinn E , Al Batran R , Gopal K , Ussher JR , El-Kadi AOS. (2019). Role of Cytochrome p450 and Soluble Epoxide Hydrolase Enzymes and Their Associated Metabolites in the Pathogenesis of Diabetic Cardiomyopathy. *Journal of cardiovascular pharmacology*. 74(3): 235-245.  
Published  
Refereed?: Yes
8. Ho KL , Zhang L , Wagg C , Al Batran R , Gopal K , Levasseur J , Leone T , Dyck JRB , Ussher JR , Muoio DM , Kelly DP , Lopaschuk GD. (2019). Increased ketone body oxidation provides additional energy for the failing heart without improving cardiac efficiency. *Cardiovascular research*. 115(11): 1606-1616.  
Published  
Refereed?: Yes

9. Uddin GM , Zhang L , Shah S , Fukushima A , Wagg CS , Gopal K , Al Batran R , Pherwani S , Ho KL , Boisvenue J , Karwi QG , Altamimi T , Wishart DS , Dyck JRB , Ussher JR , Oudit GY , Lopaschuk GD. (2019). Impaired branched chain amino acid oxidation contributes to cardiac insulin resistance in heart failure. *Cardiovascular diabetology*. 18(1): 86.  
Published  
Refereed?: Yes
10. Almutairi M , Al Batran R , Ussher JR. (2019). Glucagon-like peptide-1 receptor action in the vasculature. *Peptides*. 111: 26-32.  
Published  
Refereed?: Yes
11. Al Batran R , Almutairi M , Ussher JR. (2018). Glucagon-like peptide-1 receptor mediated control of cardiac energy metabolism. *Peptides*. 100: 94-100.  
Published  
Refereed?: Yes
12. Aburasayn H , Al Batran R , Gopal K , Almutairi M , Eshreif A , Eaton F , Ussher JR. (2018). Female offspring born to obese and insulin-resistant dams are not at increased risk for obesity and metabolic dysfunction during early development. *Canadian journal of physiology and pharmacology*. 96(1): 97-102.  
Published  
Refereed?: Yes
13. Altamimi TR , Thomas PD , Darwesh AM , Fillmore N , Mahmoud MU , Zhang L , Gupta A , Al Batran R , Seubert JM , Lopaschuk GD. (2018). Cytosolic carnitine acetyltransferase as a source of cytosolic acetyl-CoA: a possible mechanism for regulation of cardiac energy metabolism. *The Biochemical journal*. 475(5): 959-976.  
Published  
Refereed?: Yes
14. Al Batran R , Gopal K , Martin MD , Ho KL , Almutairi M , Aburasayn H , Eaton F , Campbell JE , Ussher JR. (2018). Skeletal muscle-specific Cre recombinase expression, controlled by the human  $\alpha$ -skeletal actin promoter, improves glucose tolerance in mice fed a high-fat diet. *Diabetologia*. 61(8): 1849-1855.  
Published  
Refereed?: Yes
15. Gopal K , Almutairi M , Al Batran R , Eaton F , Gandhi M , Ussher JR. (2018). Cardiac-Specific Deletion of Pyruvate Dehydrogenase Impairs Glucose Oxidation Rates and Induces Diastolic Dysfunction. *Frontiers in cardiovascular medicine*. 5: 17.  
Published  
Refereed?: Yes
16. Gopal K , Saleme B , Al Batran R , Aburasayn H , Eshreif A , Ho KL , Ma WK , Almutairi M , Eaton F , Gandhi M , Park EA , Sutendra G , Ussher JR. (2017). FoxO1 regulates myocardial glucose oxidation rates via transcriptional control of pyruvate dehydrogenase kinase 4 expression. *American journal of physiology. Heart and circulatory physiology*. 313(3): H479-H490.  
Published  
Refereed?: Yes
17. Al Batran R , Ussher JR. (2017). Revisiting protein acetylation and myocardial fatty acid oxidation. *American journal of physiology. Heart and circulatory physiology*. 313(3): H617-H619.  
Published  
Refereed?: Yes
18. Al-Obaidi MM , Al-Bayaty FH , Al Batran R , Ibrahim OE , Daher AM. (2016). Ellagic Acid Increases Osteocalcin and Alkaline Phosphatase After Tooth Extraction in Nicotinic-Treated Rats. *Current pharmaceutical design*. 22(16): 2403-10.  
Published  
Refereed?: Yes

19. Aburasayn H , Al Batran R , Ussher JR. (2016). Targeting ceramide metabolism in obesity. American journal of physiology. Endocrinology and metabolism. 311(2): E423-35.  
Published  
Refereed?: Yes

### Conference Publications

1. Rami Al Batran, Keshav Gopal, S. Amirhossein Tabatabaei-Dakhili, Jadin Chahade, Amanda A. Greenwell, Malak Almutairi, Nikole J. Byrne, Grant Masson, Farah Eaton, Carlos A. Velázquez-Martínez, Peter A. Crawford, Jason R.B. Dyck, and John R. Ussher. Skeletal muscle ketone body oxidation as a novel target for improving obesity–induced dysglycemia in mice. European Association for the Study of Diabetes, Barcelona, Spain  
Conference Date: 2019/9  
Abstract  
Refereed?: Yes, Invited?: No
2. Rami Al Batran, Keshav Gopal, Jadin Chahade, and John R. Ussher. Maladaptive Increases in Skeletal Muscle Ketone Body Oxidation Contribute to Dysglycemia in Mice Subjected to Experimental Obesity. American Diabetes Association, San Francisco, United States  
Conference Date: 2019/6  
Abstract  
Refereed?: Yes, Invited?: Yes
3. Rami Al Batran, Keshav Gopal, S. Amirhossein Tabatabaei-Dakhili, Jadin Chahade, Amanda A. Greenwell, Malak Almutairi, Nikole J. Byrne, Grant Masson, Farah Eaton, Carlos A. Velázquez-Martínez, Peter A. Crawford, Jason R.B. Dyck, and John R. Ussher. Skeletal muscle ketone body oxidation as a novel target for improving obesity–induced dysglycemia in mice . Keystone Symposia - Diabetes: Innovations, Outcomes and Personalized Therapies (X3), Whistler, Canada  
Conference Date: 2019/3  
Abstract  
Refereed?: Yes, Invited?: No
4. Keshav Gopal, Rami Al Batran, B. Saleme, H. Aburasayn, A. Eshreif, K. L. Ho, W. K. Ma, M. Almutairi, F. Eaton, M. Gandhi, E. A. Park, G. Sutendra, and John R. Ussher. FoxO1 regulates myocardial glucose oxidation rates via transcriptional control of pyruvate dehydrogenase kinase 4 expression. Society for Heart and Vascular Metabolism (SHVM), Weimar, Germany  
Conference Date: 2017/9  
Abstract  
Refereed?: Yes, Invited?: No
5. Rami Al Batran, Keshav Gopal, Hanin Aburasayn, Amina Eshreif, Wayne Ma, Farah Eaton, and John R. Ussher. Ranolazine treatment improves glycemia and decreases body weight in obese and insulin resistant mice. Keystone Symposia - Diabetes, Obesity and Adipose Tissue Biology, Colorado, United States  
Conference Date: 2017/1  
Abstract  
Refereed?: Yes, Invited?: No

## Intellectual Property

### Patents

1. Pimozide alleviates obesity-induced dysglycemia. United States. 2018054 (US Prov) WO 4124. 2019/01/28.  
Patent Status: Granted/Issued  
Year Issued: 2019  
Year of End Term: 2021

## Student/Postdoctoral Supervision

### Master's Thesis [n=1]

2021/1 - 2023/1 Faina Benyaminov, Université de Montréal  
Principal Supervisor Thesis/Project Title: Medium Chain Triglycerides and Ketogenesis  
Present Position: In Progress

### Doctorate [n=1]

2021/1 - 2026/1 Sharmistha Kundu, Université de Montréal  
Principal Supervisor Thesis/Project Title: Targeting Mitochondrial Branched-Chain Aminotransferases to Treat Obesity-associated Insulin Resistance  
Present Position: In Progress

### Post-doctorate [n=1]

2021/1 - 2022/1 Abdualrahman M. Abdualkader, Université de Montréal  
Principal Supervisor Thesis/Project Title: Unraveling the Molecular Mechanism of Action of Empagliflozin in NAFLD and NASH  
Present Position: In Progress