

DMNB QUARTERLY REPORT (RESEARCH)

Q3: October – December 2019

RESEARCH

General Update

Dalhousie Medicine New Brunswick marked a historic milestone in October with the graduation of their **first ever PhD student**, Kenneth D'Souza, who pursued his doctoral studies under the supervision of Dr. Petra Kienesberger.

D'Souza originally came to DMNB in 2014 to work as a research technician in Dr. Kienesberger's laboratory upon completing his Master's degree in Biochemistry at McMaster University. After a year of working alongside Dr. Kienesberger, D'Souza decided to apply for a PhD with her laboratory in 2015. Four years later, D'Souza received his diploma at the **Dalhousie University Fall 2019 Convocation** and officially **became a doctor!**

In more good news, one of Dr. Keith Brunt's students, Victoria Northrup, received the Dr. Linnea Veinotte Memorial Graduate Scholarship, effectively making her the **Veinotte Scholar**. She was **ranked number one out of the 25 applications received** and will be supported by the New Brunswick Health Research Foundation (NBHRF) and Dalhousie Medical Research Foundation (DMRF) in partnership with the Beatrice Hunter Cancer Research Institute (BHCRI). This award provides **\$17,850 per year of stipend** support over a period of two years.

Metrics

Funding Awarded to Principal Investigators (PIs)

This quarter, Dr. Dan Dutton won a **\$10,000 grant** with co-principal application Dr. Herb Emery (University of New Brunswick, Department of Economics) from the Government of New Brunswick for their Economic and Social Inclusion Corporate Report on Deep Poverty.

Principal Investigator (PI) Peer-Reviewed Publications

Between October and December 2019, all five DMNB Principal Investigators saw their work published in peer-reviewed journals:

1. **Dutton DJ** and Jadidzadeh A. The Incidence of Homelessness in Canada is a Population-Level Phenomenon: a Comparison of Toronto and Calgary Shelter Use over Time. *Canadian Studies in Population*. Dec 2019.
2. Sarkar S, Legere S, Haidle I, Marshall JS, Macleod J, Aguiar C, Lutchmedial S, Hassan A, **Brunt KR, Kienesberger P, Pulinilkunnil T**, Legare JF GDF15, A promising biomarker associated with obesity. (*Journal of Cardiac Surgery, JACS-2019-OA-901*, Nov 2019)
3. Aguiar CM, Gawdat K, Legere SA, Marshall JS, Hassan A, **Kienesberger PC, Pulinilkunnil T**, Castonguay MC, **Brunt KR**, Legare JF† Fibrosis independent atrial fibrillation in aged patients is



driven by substrate leukocyte infiltration: Diagnostic and prognostic implications to patient outcome stratification in cardiac surgery. (Journal of Translational Medicine, JTRM-D-19-00192R2, Nov 2019 in press)

4. Aguiar CM, Gawdat K, Legere S, Marshall J, Hassan A, **Kienesberger PC, Pulinilkunnil T**, Castonguay M, **Brunt KR**, Legare JF. J Fibrosis independent atrial fibrillation in older patients is driven by substrate leukocyte infiltration: diagnostic and prognostic implications to patients undergoing cardiac surgery. Transl Med. 2019 Dec 10;17(1):413. doi: 10.1186/s12967-019-02162-5.
5. Slade L, Biswas D, Ihionu F, El Hiani Y, **Kienesberger PC, Pulinilkunnil T**. Biochem J. A Lysosome independent role for TFEB in activating DNA repair and inhibiting apoptosis in breast cancer cells. 2019 Dec 10. pii: BCJ20190596. doi: 10.1042/BCJ20190596. [Epub ahead of print]
6. Grieve S, Wajnberg G, Lees M, Chacko S, Weir J, Crapoulet N, **Reiman T**. TAZ functions as a tumor suppressor in multiple myeloma by downregulating MYC. Blood Adv. 2019 Nov 26;3(22):3613-3625. doi: 10.1182/bloodadvances.2019000374.

Presentations by Principal Investigators (PIs)

In October, Dr. Brunt presented at the **Southern Ontario Cardiovascular Research Association Conference** at York University as one of the key-note speakers on “Academic and Translational Research Beyond the Tri-Councils.”

In November, both Dr. Kienesberger and Dr. Dan Dutton presented at the **11th Annual New Brunswick Health Research Conference** in Saint John; Dr. Kienesberger’s talk was on “Obesity-Induced Metabolic Complications in Muscle and Health: The Role of Lysophospholids” while Dr. Dutton’s was on “Population Health Policy.” In the same month, Dr. Dutton also gave a presentation at the **Dalhousie Emergency Medicine Department Rounds** on “Mortality in Trauma Cohort Post-Discharge is Higher Than In-Hospital.”

Additionally, Dr. Kienesberger’s laboratory presented the following **two posters** in November with the first one listed going on to win a presentation award in the health professional category:

1. Mercer A*, D’Souza K, Biswas D, Dao K, Trivedi P, Yi E, Pulinilkunnil T, Kienesberger PC. Development of a targeted metabolomics platform at Dalhousie Medicine New Brunswick. 11th Annual New Brunswick Health Research Conference, Nov 6-7 2019, Saint John, NB.
2. D’Souza K*, Mercer A, Mawhinney H, Pulinilkunnil T, Udenigwe C, Kienesberger PC. Effect of whey peptides on metabolism and insulin signaling in muscle cells. 11th Annual New Brunswick Health Research Conference, Nov 6-7 2019, Saint John, NB.