

DMNB QUARTERLY REPORT (RESEARCH)

Q1: April – June 2020

RESEARCH

General Update

Although the DMNB research team was unable to conduct their work in the lab for April to June period due to COVID-19 restrictions, our PIs nonetheless had an impressive quarter with funding, publications, and presentations.

In the Kienesberger and Pulinilkunnil Lab, for instance, two of their summer students received several prestigious awards. Neil Mueller and Esther Yi each won a Natural Sciences and Engineering Research Council (NSERC) Undergraduate Student Research Award (USRA) and an award from the New Brunswick Health Research Foundation (NBHRF).

Metrics

Funding Awarded to Principal Investigators (PIs)

In Dr. Keith Brunt's lab, summer student Victoria Nelson received a **\$17,500 MSc scholarship** from the Canadian Institutes of Health Research; MSc student Min Ji Kim won a **\$17,500 scholarship** from NSERC; and PhD student Victoria Northrup secured the prestigious **NSERC Alexander Graham Bell Canada Graduate Scholarship-Doctoral** valued at **\$105,000** and distributed over 36 months.

Dr. Brunt himself also brought in a **\$40,000 COVID-19 research fund** from NBHRF and the New Brunswick Innovation Foundation (NBIF) in partnership with Routinify Inc. Additionally, his NSERC renewal **increased from \$35,000 to \$58,000 a year** for the next six years.

Similarly, Dr. Thomas Pulinilkunnil's NSERC Discovery Grant was renewed for another five years for a total of **\$32,000** and Dr. Petra Kienesberger's NSERC Discovery Grant was also renewed for another five years for a total of **\$36,000**.

Between grants in which he was either a principal applicant or co-investigator, Dr. Dan Dutton secured **\$1,221,720** in funding.

As a principal applicant, Dr. Dutton won **\$30,000** from the **New Brunswick Innovation Foundation's Social Innovation Research Fund** for "Policy Innovation Lab: Enhancing Adoption & Scale of Technologies to Support Healthy Aging"; **\$21,720** from the **NBIF COVID Research Fund** for "The half-life of public health messages on infection control behaviour in the general public"; and **\$47,500** from the **NBIF COVID Research Fund** for "Assessing the impact of COVID-19 on alcohol consumption and related harms among New Brunswick adults."



And, as a co-investigator, Dr. Dutton received **\$35,000** from the **April 2020 Nova Scotia COVID-19 Health Research Coalition** for “Canadian Longitudinal Study on Aging (CLSA): Building a COVID-19 Platform for Research in Canada” and a **\$1,135,000 Canadian Housing Evidence Collaborative CMHC-SSHRC Housing Partnership Development Grant** from the Canadian Mortgage and Housing Corporation (CMHC) and Social Sciences and Humanities Research Council (SSHRC).

Principal Investigator (PI) Peer-Reviewed Publications

Between April and June 2020, two DMNB Principal Investigators saw their work published:

1. Myocardial Ketones Metabolism in Heart Failure. Karwi QG, Biswas D, **Pulinilkunnil T**, Lopaschuk GD. (2020). *J Card Fail.* S1071-9164(20)30033-6.
2. Loss of function of transcription factor EB remodels lipid metabolism and cell death pathways in the cardiomyocyte. Trivedi PC, Bartlett JJ, Mercer A, Slade L, Surette M, Ballabio A, Flibotte S, Hussein B, Rodrigues B, **Kienesberger PC**, **Pulinilkunnil T**. (2020). *Biochim Biophys Acta Mol Basis Dis.* 1866(10):165832.
3. Lysosomal Biology and Function: Modern View of Cellular Debris Bin. Trivedi PC, Bartlett JJ, **Pulinilkunnil T**. (2020). *Cells* 9(5):E1131.

Presentations by Principal Investigators (PIs)

In May, Dr. Dutton appeared on CTV National News in an interview regarding the COVID-19 cluster in Campbellton, New Brunswick. Dr. Dipsikha Biswas and Purvi Trivedi also gave virtual presentations during the International Society for Heart Research (ISHR) COVID-19 Zoom Webinar Series.

Then, in June, Dr. Dipsikha Biswas and Purvi Trivedi each gave another virtual presentation during the Cardiometabolism Atheroma Zoom Webinar Series.