

Research Update

Stay informed with news from Heart & Stroke

National

2018/19 Heart & Stroke Research Competitions results!

Competition results are now available on the Heart & Stroke research website. Please follow the links below to view the competition results for each national Heart & Stroke research program that was launched in 2017.

- **Grant-in-Aid (GIA)**
 - 79 new grants have been funded, with an overall program success rate of 23%.
- **Personnel Awards**
 - 17 new personnel awards have been funded. This includes awards from both the national and provincial personnel awards competitions, as well as the Women's Heart and Brain Health Seed Catalyst grants.

Congratulations to all grant and award recipients!

2018/19 Barnett Scholar

Heart & Stroke's Henry J. M. Barnett Scholarship is presented annually to a highly rated investigator working in the area of cerebrovascular research. This prestigious award was established to honour Dr. Henry J. M. Barnett's exceptional contributions to stroke research, education and patient care in Canada. This year's Barnett Scholar is also a joint National New Investigator and Improving Heart and Brain Health for Women: Seed/Catalyst Grant recipient, as well as a Grant-in-Aid recipient. Congratulations to Dr. Thalia Field (University of British Columbia), the 2018/19 Barnett Scholar!

2018/19 McDonald Scholar

The McDonald Scholarship was established in honour of Mr. Ewing (Mac) McDonald, Heart & Stroke's executive director from 1968 to 1987. Each year, the scholarship is awarded to the highest-rated applicant in the New Investigator competition. This year's McDonald Scholar holds a joint National New Investigator award and an Alberta New Investigator award. Join us in congratulating Dr. Gopinath Sutendra (University of Alberta), the 2018/19 McDonald Scholar!

E-recruit via our e-registry

Heart & Stroke maintains an extensive e-registry of people with lived experience, including both caregivers and survivors. A monthly e-newsletter is sent to this group and often showcases research engagement opportunities. The people on this list have identified their desire to hear about Canadian research in progress and opportunities to be engaged. We have developed a process to ensure the quality and safety of external opportunities presented to the e-registry.

Please take a moment to review the application form [here](#) and consider how you might wish to engage with people with lived experience. Please allow for an approximate response time of one week after the receipt of an application. If you have any questions about this process or the application form itself, please contact moira.teed@heartandstroke.ca directly. Please spread the word about the e-registry by advising any interested individuals to simply requires a click of the “subscribe” button at the bottom of this web address: <http://HeartandStroke.ca/Connect>.

Heart & Stroke Clinical Update 2018: Emerging evidence that will change your practice

Join your colleagues and participate in sessions by renowned researchers and experts from multiple disciplines. The Heart & Stroke Clinical Update will offer practical pearls, research updates and best practice discussions for the prevention and management of cardiovascular and cerebrovascular disease.

Sessions of particular interest to researchers include:

- Keynote Address: Patient engagement in health care and decision making (Jennifer Price): Includes the concepts and benefits of patient engagement in research.
- Harnessing the benefits of the explosion in stroke rehabilitation research (Mark Bayley)
- New evidence in heart disease – Reducing residual risks (Ruth McPherson, John W. Eikelboom, Patrick Lawler)
- Cannabis: The impact on vascular health viewed through a public health lens (Chris Simpson)

Check out our full [Program](#) and [save your seat today](#) while early bird rates are in effect.

December 7-8, 2018

Hilton Toronto Downtown Hotel

145 Richmond Street West, Toronto

www.clinicalupdate.ca

Research transformation update

As of early October, all six Mission Critical Area councils had met face to face to identify issues and gaps relevant to their conditions and disease(s). On October 23rd, all the councils meet together to build on the deliberations of the six MCA Councils and to identify a prioritized list of key problem areas where Heart & Stroke can have the greatest impact in the next five to 10 years through research, policy, systems change, awareness, patient support, and/or advocacy.

Action on these “questions” must have the potential to have a substantive and positive impact on the lives of people living with heart conditions and/or stroke, or reducing incidence and risk for having these diseases. These cross-cutting priorities will galvanize Heart & Stroke over the next 5-10 years serving as organizational priorities for action across all areas of our mission.

The MCA Council recommendations will be brought forward to CoMPASS for discussion in January. Heart & Stroke will bring final recommendations on these cross-cutting priorities to the board of directors for approval in March 2019. Concurrently, Heart & Stroke is designing a team-based, multi-institution research competition that will focus on these longer-term priorities as one of our strategies to address these cross-cutting priority areas.

Nova Scotia



From left to right; Myles O'Brien, Brittany Roberts, Eilidh MacDonald, Laura Smith & Philippe Tremblay

The future is looking bright with this year's recipients of the Heart & Stroke BrightRed Student Research Awards!

The *BrightRed Student Research Awards* are a donor-funded investment exclusive to Nova Scotia. The awards recognize excellent emerging cardiovascular and cerebrovascular researchers in Nova Scotia at differing stages of their careers. Every year we offer five, \$5,000 awards to students who are enrolled in research-based Masters, Doctoral, or Post-doctoral training programs at academic institutions in Nova Scotia. These award recipients are part of a generation of researchers who are working to advance the heart and stroke health landscape and will help save lives, not only in Nova Scotia but across Canada and globally.

Together with the Nova Scotia Research Advisory Committee, we have selected five recipients of the 2018-19 *BrightRed Student Research Awards*. Read more about them and what they're studying below.

This year's recipients will be formally celebrated on **November 20th** at the annual Research Reception, hosted at the Halifax Central Public Library, Paul O'Regan Hall beginning at 4:00 p.m. The future is indeed bright with this year's *BrightRed* students!

Congratulations to our 2018-19 *BrightRed Student Research Award* Recipients!

BrightRed Mission Award:

Myles O'Brien: Can exercise training attenuate prolonged sitting-induced declines in vascular and cognitive function in older adults?

Myles' research focuses on ways to combat the poor effects associated with prolonged inactivity in older adults. Frequent, long periods of sitting increase the risk of stroke and heart attack. Aerobic exercise, particularly high-intensity interval training (HIIT), is a safe and effective way to improve blood vessel health.

Myles will study the impact of prolonged sitting on blood vessel health in older adults and if engaging in HIIT can prevent these anticipated negative effects. This research will promote active aging and may prevent disease in the older population.

The John & Judy Bragg Family Foundation Award

Phillipe Tremblay: The effect of Left Ventricular Assist Devices (LVAD) support on pulmonary hypertension in end-stage heart failure

Phillipe's research concentrates on ways to treat heart failure. Heart failure can be treated by heart transplantation or Left Ventricular Assist Device (LVAD), and is often associated with a severe complication called Type II pulmonary hypertension. Recent research has shown that use of an LVAD may be effective in treating Type II pulmonary hypertension.

Phillipe's study will look at the LVAD's ability to reverse Type II pulmonary hypertension. With the increase in heart failure in North America, the results of this research will establish the benefits of using the LVAD to promote survival and quality of life in heart failure patients.

The Paul & Mary O'Regan Graduate Research Award

Eilidh MacDonald: Effects of stretch on heart rate and rhythm

Eilidh's research explores the effect of stretch on heart rate and rhythm. Stretch of the part of the heart called the sinoatrial node (SAN) causes an increase in heart rate. However, it is not known how this occurs. Eilidh's research will explore the mechanisms by which stretch of the SAN increases heart rate in zebrafish.

The results of Eilidh's research will show the importance of stretch on heart function in normal and disease states. This knowledge will ultimately help with the assessment and treatment of patients with SAN dysfunction and may allow for a new strategy for artificial pace-making.

BrightRed Awards

Brittany Roberts: Brain function and regular physical activity after aerobic exercise

Brittany's research investigates how physical activity affects the recovery of patients post-stroke. Previous research has shown that aerobic exercise right before rehabilitation therapies can improve brain recovery in stroke patients. However, it is still unclear how day-to-day exercise, when paired with pre-therapy aerobic exercise, affects brain recovery.

Brittany's research will look at the relationship between patients' day-to-day exercise levels and the pre-therapy aerobic exercises. This work will provide information on the physical activity level of Nova Scotians, an important risk factor for stroke and cardiovascular disease, and ideas on how to enhance stroke recovery.

Laura Smith: Neuromechanisms underlying prism adaptation in children

Laura's research investigates how children's brains respond to a therapy called prism adaptation (PA). PA is used to help stroke patients who cannot identify or react to left-side stimuli (spatial neglect), a common and long-lasting condition associated with stroke patients. PA offers a promising, home-based option for long-term stroke rehabilitation, for both adults and children.

Laura will assess the affect of PA on the brains of healthy children, and she will evaluate PA as a therapy for spatial neglect to help to improve the procedure.

British Columbia & Yukon

Heart Hub

Earlier this summer, Dr. Kim Miller, supported by the Knowledge to Action Grant in BC in 2015/16, launched a website geared towards heart patients. The site is a resource for patients and their families to support them in making informed decisions around heart treatment options with their healthcare providers.

Designed with patient input, the user friendly website features helpful tools, such as:

- A table highlighting the risks and benefits of various treatment options
- A checklist of questions patients could ask their doctors
- A list of common myths and explanations

Check out the website at <http://hearthub.ca/>