



NEUROTRANSMITTER

The Brain Repair Centre is the hub for neuroscience medical research in the Maritimes. This new sletter keeps our researchers and partners up to date on the latest new s from the Brain Repair Centre and shares relevant information to foster and grow neuroscience research.



BRC - AN ADVOCATE FOR MARITIME NEUROSCIENCE

FROM THE DESK OF
DR. VICTOR RAFUSE, DIRECTOR
BRAIN REPAIR CENTRE

I am pleased to share with you a series of good news stories in this issue of the Brain Repair Centre's (BRC) newsletter.

Keep reading to learn about the BRC being named Dalhousie Medical School's most recent Wave research group, why we hosted a first-ever national neuroscience leadership forum and how our office helped to secure a \$650,000 grant for ABI research.

I have also joined a new National Research Strategy Steering Committee. The group, formed out of the leadership forum hosted by the BRC, is designed to create a national strategy for neuroscience research in Canada. Through a collaborative and coordinated approach we will bolster our research productivity while also making our work more attractive for future funding, including recently earmarked federal research funding.

Each of these accomplishments has emphasized the value of having our institute focused on promoting growth and stimulating discussions for neuroscience research in the Maritimes.

As always, if you have any questions about our work or how we can support you, please don't hesitate to contact me.

Dr. Victor Rafuse
Director, Brain Repair Centre

BRC HOSTS FIRST NATIONAL NEUROSCIENCE LEADERSHIP FORUM

On Sept. 8th, 27 neuroscience researchers from across Canada enthusiastically responded to the Brain Repair Centre's invitation to put their heads together to discuss neuroscience research in Canada. The event hosted participants from major brain research centres in Canada, including a number

of Canada First Research Excellence Fund (CFREF) researchers that pertain to neuroscience.

The first-ever national neuroscience leadership forum created the opportunity for leading neuroscience researchers to discuss their work and visions for the future.

“We have world-class researchers in our country,” said Dr. Vic Rafuse, BRC Director and event host. “Not only is it essential for us to take advantage of the opportunity to learn from one another, but it is also valuable for us to be constantly looking for ways to work together to complement our own work and to help map out a vision for neuroscience research in the future.”



The meeting concluded with unanimous consent for a national brain research strategy, resulting in a National Brain Strategy Working Group being struck on the spot. The committee, of which Dr. Vic Rafuse will participate, will work with colleagues across Canada to develop the strategy which will be unveiled for feedback at a later date. The project is being led by Dr. Yves de Koninck, of Laval University.

Through a national strategy, neuroscience researchers will be able to present and advance their work in a coordinated and strategic way. It is also expected to open new doors to research funding.

DAL NAMES BRC AS WAVE RESEARCH GROUP

This past summer, Dalhousie Medical School named the Brain Repair Centre as one of its Wave research teams.

When Dal introduced its Wave approach last year, the strategy was described as an opportunity to “reveal the medical school’s strongest research teams, uncover their aspirations, and identify what they need to take their work to the next level of productivity and impact.”

In addition to being named a Dalhousie institute, the Wave recognition further acknowledges BRC as both a leading research team and doing important work that aligns with the University’s research priorities. The distinction is expected to strengthen BRC and its researchers’ reputations and potentially create new funding opportunities and collaborations.

BRC FACILITATES \$650,000 GRANT FOR BRAIN INJURY RESEARCH



A team of researchers, led by **Dr. Alon Friedman** and **Dr. Cindy Caulkin** at the BRC, in partnership with NSHA, has received a \$650,000 grant from Global Affairs Canada to pursue their work in neuroanatomical and neurofunctional assessment in acquired brain injury. Global Affairs Canada is interested in understanding what, if any, neurology impact may occur to diplomats following international travel. The \$650,000 grant is over two years. The work is solely focused on research, excluding any clinical capacity. A more detailed overview of this exciting new collaboration will be highlighted in a future edition of our

newsletter.

SUPPORTING STUDENT RESEARCHERS

The BRC makes it a priority to help its student researchers expand their knowledge and build national relationships. This year BRC awarded \$5,000 to the following students to attend various conferences:

Han Zhang; Supervisor Ying Zhang
SfN 2018 (Society for Neuroscience)

Dylan Deska-Gauthier; Supervisor Ying Zhang

CANADA-ISRAEL STUDENT EXCHANGE

The BRC is recruiting PIs to submit their research interests to be part of a new Dalhousie/Ben Gurion University (BGU) student exchange program. The program has students travelling to BGU to shadow a PI with complementary research interests. There would be a reciprocal agreement whereby BGU students would shadow PIs here at the BRC. Identified areas of research within the Canada-Israel Trans-Atlantic Collaboration for Brain

SfN 2018

Olivier Laflamme; Supervisor Turgay Akay
SfN 2018

Lyam Bailey; Supervisor Aaron Newman
Canadian Society for Brain, Behaviour and
Cognitive Science Conference (CSBBCS)

Antonios Diab; Supervisor James Fawcett
International Behavioural and Neural Genetics
Society (IBANS) Annual Meeting

Ralph Redden; Supervisor Ray Klein
VSS 2018: Vision Sciences Society International
Workshop

Interested in having BRC support one
of your research students. Email
brainrepair@dal.ca to learn more.

Studies are (but not limited to): brain injury, motor
control and rehabilitation and neurodevelopment
and autism disorders. There will be a financial
contribution of \$3,000.

Join the Student Exchange Program:

1. Interested PIs are to submit a short bio-
sketch outlining their research interests and
technical approaches used to address these
interests. Email: esb@dal.ca.
2. Biosketches will be posted on the BRC and
BGU School of Brain and Cognitive Sciences
websites, where PIs will contact researchers who
have common research interests to determine if
they wish to initiate a collaboration by exchanging
a graduate student or postdoctoral fellow through
this program. (See current [Biosketches](#))
3. Once partnerships are identified contact [BRC
administration](#) to apply for funding. The number
of funded students will be determined by the
availability of funds.

[Discussion Paper on the Canada-Israel Trans-
Atlantic Collaboration for Brain Studies](#)

KNOWLEDGE TRANSLATION GRANTS

The BRC provides peer-reviewed grants to help local researchers kick-start their studies and increase their opportunity to secure additional funds. This spring, the BRC awarded two researchers two Knowledge Translation grants at a combined total of \$45,000.

Dr. Sean Christie -- \$30,000

Time Is Spine: Minimizing Secondary Spinal Cord Injury by Hyper-Acute Delivery of a Combination of Pleiotropic Neuroprotectants

Traumatic spinal cord injury (SCI) is a highly debilitating condition leading to partial or complete loss of mobility, sensation and other organ functions, and frequently leads to chronic pain. The "primary" mechanical injury leaves little scope for intervention. However, the following hours, days and weeks witness the development of a deleterious cascade of events, termed secondary spinal cord injury (SSCI). Eliminating or minimizing SSCI is currently the only clinical option to improve functionality after SCI. Dr. Christie's project proposes to demonstrate that the pleiotropic and complementary properties of a specific cocktail of drugs will mitigate early SSCI biochemical events and thereby augment mitochondrial, and hence neuronal survival following trauma.

Dr. Gail Eskes -- \$15,000

Assessing Attention: Implementing and validating the Dalhousie Computerized Attention Battery (DalCAB) on an iPad tablet.

Dr. Gail Eskes and her team have created a cognitive assessment tool that is suited for use in a clinical or laboratory environment. To adapt our existing and well-validated software into a more commercial-friendly form, they need to migrate the software from desktop computers to touchscreen tablets (e.g. Microsoft Surface, iPad). This grant will enable Dr. Eskes to support the testing of iPad hardware and recently developed software in the healthy older adult population.

MEMBERS' CORNER

The BRC membership has rich and diverse talent. The following is a sample of BRC members who have recently received grants, been published or featured by media.

GRANT RECIPIENTS

Dr. James Fawcett was awarded a Canadian Institutes of Health Research (CIHR) project

MEMBERS GETTING NOTICED

Dr. Angelo Iulianella [presented at CAN 2018 as part of the symposium:](#) "Development and

grant in the spring competition for his project titled [Control of movement: contribution of cerebellar glial cells](#).

Dr. Kazue Semba was also awarded a Canadian Institutes of Health Research (CIHR) project grant in the CIHR spring competition for her project [Microglia response to chronic sleep restriction](#).

Did we miss listing your accomplishment? We want to hear about it! Email: brainrepair@dal.ca

function of motor circuits: from hardwired patterning to functional maturation and sensory integration." The Brain Repair Centre and the Department of Medical Neuroscience at Dalhousie were sponsors of this international event.

[A Nova Scotia first: Surgeons use 3D printing of brain to prep for surgery](#) May 2018 | Drs. **Simon Walling** and **Adrienne Weeks**

[Gaming meetings medicine to become Nova Scotia's neurosurgeon's essential tool](#), CBC, May 2018 | **Dr. David Clarke**

Dr. Sultan Darvesh continues to make strides in Alzheimer's research. His work can be supported through the Spring Dalhousie Medical Research Fund Molly Appeal (Spring 2018)

UPCOMING EVENTS

[Bioport 2018](#)

Nov 7-8, Halifax, NS

[Toronto ABI Network Conference](#)

Nov 15-16, Toronto, ON

[BRC Journal Clubs](#)

Interdisciplinary Science: Nov. 6

Vision Science: Nov. 13

PARTNER UPDATE

The BRC is proud to partner with various organizations that support advancing neurological research in the Maritimes.



Brain Injury in the Community

As the only organized voice for some 70,000 Nova Scotians affected by brain injury, the Brain Injury Association of Nova Scotia is committed to providing education, programs, recovery support and advocacy to this chronically underserved community.

This August, BIANs was pleased to partner with the Department of Health and Wellness' in their recent [\\$5-million investment](#) in acquired brain injury care, which will enhance resources, education and community-based supports.

Brain injury survivors and their families look to us every day as a resource and touchstone of support across the spectrum of brain injury. There are an estimated 2,700 new brain injuries every year in Nova Scotia.

UPCOMING EVENTS:

ANNUAL HALLOWEEN FAMILY-FRIENDLY FUNDRAISER

Saturday Oct 27, Woodside Bowlarama

MUSIC THERAPY for Brain Injury

Your brain loves music. Ongoing 6-week series

No cost to participants in partnership with Find Your Voice Music Therapy

Wednesdays 2 p.m. – 3 p.m.

YOGA for Brain Injury Survivors

Drop-in style, only \$10, slow moving yoga in a safe space. No experience necessary.

Thursday afternoons 1:45 pm in partnership with Enigma Studios, #301 255, Lacewood Drive

CONCUSSION CAFÉ

This peer-led discussion & support group meets the last Tuesday of the month 7 p.m.

Canada Games Centre Community Room

Connect at our Concussion Café - share solutions, challenges and successes on your recovery journey

HEAD-ON Support Group

Canada's longest running peer support group for brain injury survivors only

2nd and 4th Wednesdays | 7:00 p.m.

The BRC is a valued community partner - thank you for all you do.

Volunteer, donate, get involved.

www.braininjuryns.com | Tel: 902-473-7301 | Email: info@braininjuryns.com

Brain Repair Centre | (902) 494-4010 | brainrepair@dal.ca | brainrepair.ca

The Neurotransmitter

