

brainwaves



March 2011

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Life Sciences Research Institute (LSRI) Opening Soon

The **Brain Repair Centre** will be front and centre as the new \$65 million **Life Sciences Research Institute** (*pictured left*) opens in a few weeks, breathing life into the dream of building a world class life sciences sector in Nova Scotia.

Announced in 2004, the LSRI will foster research in the life sciences that could lead to commercial applications, foster economic growth in the region and find treatments and cures that have an impact on the health and wellness of society. Designated by the federal government as a centre of excellence for commercialization and research, the facility will provide opportunities for collaborative efforts among researchers by "clustering" them in the same facility.

The BRC is slated to move in mid-2011. Many BRC researchers and their laboratory personnel have worked in a number of different hospital and university locations in Halifax. Moving to the LSRI means they will all come together in an open-concept environment, designed to promote creativity and interaction. As the anchor tenant in the new facility, the BRC will occupy two and a half floors of the LSRI.

The facility is nearing completion at the corner of Summer and College streets on the Carleton Campus of Dalhousie University.

The LSRI is a collaborative venture of Dalhousie, the Capital District Health Authority, the IWK and other partners.

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Royal Society Welcomes Second BRC Fellow

The BRC's roster of researchers now includes two distinguished Fellows in the Academy of Science of the Royal Society of Canada.

Dr. Harold Robertson has joined **Dr. Ben Rusak** as BRC researchers inducted as Fellows to the Academy's Life Sciences Division.

The Royal Society of Canada is the senior national body of distinguished Canadian scholars, artists and scientists. Fellows are selected by their peers for outstanding contributions to the natural and social sciences, in the arts and in the humanities.

Dr. Robertson is Professor Emeritus in the Department of Pharmacology and holds appointments in the Departments of Medicine (Neurology), Psychiatry and Psychology.

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Join Our E-mail List

If you would like to receive The Brain Repair Centre's e-newsletter, please email us at brainrepair@dal.ca with the subject line "newsletter email list."

The Brain Repair Centre is a collaboration of Dalhousie University, Capital District Health Authority and IWK Health Centre.





BRC Fellows

(Cont'd from page 1)

He was elected for his pioneering research contributions, related to gene expression and dopamine neurotransmission in the brain, and their significance for both understanding and treating Parkinson's disease, psychiatric disorders and addictions.



Dr. Harry Robertson



Dr. Ben Rusak

Dr. Rusak is a professor in Psychiatry and Psychology with a cross-appointment in Pharmacology. His primary areas of research are sleep loss on brain function and on the role of sleep in psychiatric illness.

He was elected as a Fellow of the Royal Society in 1999, and currently serves as a member of the Selection Committee for New Fellows in the Academy's Life Sciences Division.

FOCUS ON **Neighbours**



The Innovacorp Enterprise Centre will be a “neighbour” and potential collaborative partner of the BRC in the new Life Sciences Research Institute and one with an international reputation.

Innovacorp helps high potential early stage companies commercialize their technologies and succeed in the global marketplace. It manages the *Nova Scotia First Fund*.

Young technology companies can submit an application for consideration for seed and venture investment and, if approved, Innovacorp helps them develop by offering space, business services and mentoring support.

Innovacorp, a Nova Scotia Crown corporation, won the National Business Incubation Association's international award in 2010 for business incubation. It has fostered many companies, including Ocean Nutrition Canada, the world's largest supplier of Omega-3 EPA/DHA ingredients from fish oil. Ocean Nutrition supplies the dietary supplement and health food markets.

The Innovacorp Enterprise Centre will move to the LSRI this month, along with other organizations that include several early stage technology companies that Innovacorp is “incubating.” These include Carbon Sense Solutions Inc., DementiaGuide Inc., DNA Technologies, Immunovaccine Inc. and Innovascreen Inc.

Other organizations that will call the LSRI home include:

- **Springboard Atlantic** – a network that provides resources to Atlantic Canada's universities and colleges to encourage the transfer of knowledge and technology to the private sector.

- **BioNova** – Nova Scotia's life sciences association. It serves as an advocate and provides networking and education opportunities to the 3,400 people working in the province's life sciences community.
- **Nova Scotia Research and Innovation Trust** – assists Nova Scotia's research institutions to secure grants from the federal government's Canada Foundation for Innovation.
- **Genome Atlantic** – helps develop, invest in and manage large scale gene discovery projects throughout Atlantic Canada.

Another important neighbour and potential collaborative partner moving to the LSRI is Dalhousie University's Industry Liaison and Innovation Office (ILI.)

ILI is responsible for commercializing research at the university, facilitating collaborations between companies and university researchers, and assisting in the creation of spin-off ventures.

Innovacorp will be headed by a new CEO when it makes the move to the LSRI. **Clifford Gross** took over the top management job on Feb. 1. Dr. Gross founded UTEK Corporation – a U.S. company that specialized in transferring university technologies to the private sector.

Dalhousie also has made a new appointment. **Stephen Hartlen** has become Assistant Vice-President of Industry Relations and Executive Director of ILI. Mr. Hartlen spent the last eight years at Innovacorp and was interim president and CEO. (See page 4 *A Research and Industry Partner.*)



Research Feature

Cognitive Repair at Home offers New Hope for Patients

Improving the lives of people who suffer from attention, memory and thinking deficits because of brain injuries or disease is the goal of research to develop a “Cognitive Repair Kit.”

The Brain Repair Centre, in collaboration with Dalhousie University, the Capital District Health Authority and the IWK Health Centre, received nearly \$2 million from the Atlantic Innovation Fund (AIF) to develop the kit — a computerized, game-like set of cognitive training exercises to treat attention deficits in individuals who have had a stroke or who have Parkinson's disease.

“Our goal is to develop accessible treatments that patients can use at home under therapeutic supervision,” says **Dr. Gail Eskes**, Chief Investigator on the project and Director of Research and Education with the Brain Repair Centre.

“The AIF funding will allow us to address the critical need for the development of effective, evidence-based cognitive treatments to improve the lives of patients and their families,” says Dr. Eskes, also an Associate Professor with the departments of Psychiatry, Medicine (Neurology) and Psychology at Dalhousie University.

Treatments currently available are limited in number, time-consuming and require extensively trained personnel to implement. The Cognitive Repair Kit will give individuals the tools to engage in intensive skills training at home, with only limited supervision needed by a clinician.

The Kit will be installed on a person's home computer. It will feature computerized assessment techniques and offer training exercises. The technology will be linked to the Internet so clinicians will be able to

monitor each person's performance and adjust the training exercises as needed.

Co-investigators are Brain Repair Centre researchers and Dalhousie professors **Dr. Ray Klein** (Psychology), an expert in cognitive psychology; **Dr. David Westwood** (Kinesiology), an expert in human visuo-motor control; and **Dr. Ivar Mendez** (Anatomy, Neurobiology, Neurosurgery), an expert in cell restoration therapy for the treatment of Parkinson's disease. They will work with colleagues in Psychiatry, Computer Science and Engineering on design and video game development.

The project also will help test another innovation and collaboration with **Dr. Beverly Butler** (Psychiatry) — the Dalhousie Computerized Attention Battery (DalCAB) — a battery of attention tests that will provide a “report card” of attention performances in a variety of attentional domains, commonly affected by stroke and other neurological and psychiatric diseases. These results will help direct the clinician's plan and the monitoring of therapeutic exercises. Current tests are not well suited to linking assessment results to effective treatments for different attention and working memory deficits.

The \$1.8 million from AIF is matched by funds from the Capital District Health Authority, the Brain Repair Centre, the Nova Scotia Health Research Foundation, The Dalhousie Medical Research Foundation, and Dalhousie's Departments of Psychiatry, Medicine and Science.

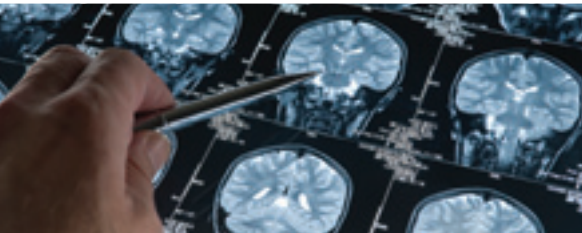


Dr. Gail Eskes

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For more information on the Cognitive Repair Kit, visit <http://eskes.psychiatry.dal.ca>

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Do you have a new grant or publication?

Send details of your success to Lynn.McKenna@dal.ca and we'll include it in upcoming issues.

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The **Brain Repair Centre** would love to hear from you. What stories and features would you like to read in Brainwaves? Please send us your comments and ideas at brainrepair@dal.ca

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The Brain Repair Centre is a collaboration of Dalhousie University, Capital District Health Authority and IWK Health Centre.



A Research and Industry Partner

By Billy Comeau

Reprinted from Dal News

Firmly demonstrating the university's commitment to innovation and the economic development of Nova Scotia, Dalhousie announced the appointment of **Stephen Hartlen** as Assistant Vice President (Industry Relations) and Executive Director of the Industry Liaison and Innovation Office (ILI). This position will enhance Dalhousie's role in innovation, research commercialization and industry engagement and add to the economic strength of Nova Scotia and Canada.

"The hiring of Stephen Hartlen signals an exciting new era of industry engagement by Dalhousie," says **Martha Crago**, Vice President, Research. "We (have) a dynamic and experienced leader in business development to strengthen Dalhousie's connections to the private sector and government and capitalize on the synergies between them. His leadership can increase the quality of such partnerships and create new opportunities for both Dalhousie's researchers and for our industrial partners."

INNOVACORP

Mr. Hartlen spent the last eight years at Innovacorp, Nova Scotia's crown corporation for the commercialization of early stage research, serving as Vice President (Mentoring) and most recently, Interim President and CEO. ILI and Innovacorp will become close neighbors in Dalhousie's new Life Sciences Research Institute upon its opening this spring. The combination of the two will provide a substantial boost to the Nova Scotia economy and strengthen university-industry research partnerships.

"I know there is so much incredible research and innovation happening at Dalhousie and I'm thrilled to be joining the team that's helping bring it to the world and building stronger ties with the private sector," says Mr. Hartlen. "Dalhousie is an economic driver for the entire region and I'm very pleased to join the efforts of those helping it achieve its full potential."

Building on Dalhousie's history of contributions to the development of the

province and our country, Mr. Hartlen will interact with the local private sector community to develop research contracts and create student internships with local, national and international industries. In addition to helping grow the \$132 million worth of research being carried out by Dalhousie faculty, Mr. Hartlen will work to enrich the learning experience for the future leaders and innovators.

"Through increased relations with industry, we will create an open, easy access route to our research and business development capacity," says Dr. Crago. "By partnering with industry, Dalhousie makes its wealth of equipment and highly qualified personnel available to help industries meet their needs, thereby contributing to the economic growth and prosperity of not only Nova Scotia, but the rest of Canada."

COMMERCIALIZING RESEARCH

"Stephen Hartlen has been a great contributing member of Innovacorp," said **Jacquelyn Thayer Scott**, chair of Innovacorp's board. "We think he is a great addition to the Dalhousie research team, and are pleased we will continue to be able to work with him in this new capacity to expand Nova Scotia's research and innovation impact."

Dalhousie's Industry Liaison and Innovation Office commercializes research at the university, manages and facilitates collaborations between companies and university researchers and assists in the creation of spin-off ventures. Innovacorp helps high potential early stage Nova Scotia companies commercialize their technologies and succeed in the global marketplace.

In addition to Innovacorp, Mr. Hartlen has worked with companies including xwave, Infointeractive, MTT, and Keltic Inc. He has served on a number of Nova Scotia Government committees such as the Deputy Minister's Leadership Team on the Economy and Environment and was included in recent consultations for the Savoie and O'Neill reports. He is also an advisory board member for Dalhousie's Corporate Residency MBA program.