

Brain gain

Behind a heavily protected door deep inside Canada's newest neuroscience research laboratory is one of the most powerful human-imaging magnets in the world. It is so powerful, in fact, that it will give Halifax-based researchers the ability to probe into the human brain more effectively than ever before.

Researchers say the new 4 Tesla magnetic resonance imaging (MRI) system and its accompanying research facilities have the potential to lead to discoveries of new medicines, cures, and lifesaving treatments for people who suffer from such brain disorders as Parkinson's, Huntington's, and Alzheimer's diseases.

In December doctors, researchers, and politicians gathered at the Halifax Infirmary, which is part of the Queen Elizabeth II Health Sciences Centre, to open the new laboratory. The centrepiece of the \$10-million project, funded largely by the National Research Council, is the MRI system. The magnet weighs more than 18 tonnes and requires extensive testing and refinement before it is ready for research. (At press time, it was expected to be operational sometime this winter.)

The new MRI and lab anchor the work of the Halifax-based Brain Repair Centre, a research partnership of more than 100 experts. They also reinforce the region's status as a leader in brain repair. Top researchers and physicians associated with the centre range from surgeons who replace brain tissue to scientists who research stem-cell neurobiology.

"I am familiar with the reputations of many of the neuroscientists affiliated with [the Brain Repair Centre], and much of the ongoing research is world class," says Tony Phillips, a professor in the University of British Columbia's graduate neuroscience program and an advisory board chair for the Institute for Neurosciences, Mental Health and Addiction (part of the Canadian Institutes of Health Research).

According to Dr. Ivar Mendez, the Brain Repair Centre's chair and



Halifax's newest neuroimaging MRI system reinforces the region's status as a world leader in brain repair.

PHOTO COURTESY BRAIN REPAIR CENTRE

head of Dalhousie University's neurosurgery division, Nova Scotians should feel comforted knowing that if they or a family member develops a brain disorder, they won't have to travel outside of Nova Scotia to get expert medical care. An attractive feature for recruiting new staff to the region, the neuroimaging lab will complement the centre's unique neurotransplantation program, the only one of its kind in Canada and one of just four in the world. "We want this to be the brain-repair centre of the world," says Mendez. — ALLISON LAWLOR