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Canadian, Australian studies earn top honours at Stroke Congress

OTTAWA, Oct. 4, 2011 - Two standout studies – one using laser beams to measure brain recovery after stroke and another proving the benefits of specially trained stroke teams in hospitals -- received top honours at the 2011 Canadian Stroke Congress.

University of British Columbia researcher Thomas Harrison, PhD, won the co-chairs' Innovation Award for research using laser light to map the brains of mice after stroke and to track recovery. Dr. Harrison and a UBC research team employed lasers to measure improvements in limb movement by focusing light pulses on the area of the brain responsible for motor control.

“One major advantage of this technique is that it is painless and can be performed repeatedly over hours, weeks and months; this has never been possible before,” Dr. Harrison says. “Repeating this experiment many times before and after stroke in the same mouse allows us to monitor the process of reorganization that occurs as the brain responds to injury.”

The study is still under way, but Dr. Harrison says research has already provided evidence of the brain's ability to rewire itself after stroke. “In the future, we hope to use this method to identify therapies or methods of rehabilitation that can optimize this spontaneous recovery process.”

Dale Corbett, PhD, Congress Co-chair and Scientific Director of the Heart and Stroke Foundation Centre for Stroke Recovery, said the Innovation Award “highlights a study that brings a completely new approach to an important research problem with the potential for addressing questions that previously could not be investigated.”

A group of researchers from Australia led by Professor Sandy Middleton, RN PhD, from Australian Catholic University and St Vincent's & Mater Health Sydney won the co-chairs' Impact Award this year for their study of team-based stroke treatment on stroke recovery.

Researchers gathered information on nearly 1,700 patients from 19 stroke units across Australia. Staff from 10 stroke units participated in team-building workshops and a staff education program to implement protocols for the management of fever, high blood sugar levels and swallowing difficulties, while staff at the other nine stroke units only received a copy of the Australian stroke care guidelines.

The study found patients treated in stroke units where staff implemented the protocols to manage fever, sugar and swallowing were healthier and 16-per-cent less likely to die or to be dependent three months after their stroke than those who weren't treated using these protocols.

"These results provide compelling evidence on how to change clinicians' behaviour and also evidence for effective team work and, in particular, good nursing care." Professor Middleton says. "This positive effect is larger than any current drug or treatment for stroke including clot busting therapy and, unlike some drugs and stroke treatments, has relevance for all people with stroke." says Professor Middleton.

Published online this week in *The Lancet*, the Study showed that patients who received care in stroke units using these protocols also were more likely to have fewer episodes of fever, lower mean temperatures, lower mean glucose levels and better swallowing screening practices.

The Impact Award goes to the study most likely to directly impact stroke care, says Dr. Andrew Demchuk, Congress Co-chair and Director of the Calgary Stroke Program. "More Canadians who suffer stroke need to be admitted to stroke units with comprehensive approaches to staff education, multidisciplinary teams and treatment protocols," Dr. Demchuk says. "This study proves it."

The Canadian Stroke Network's 2011 report on *The Quality of Stroke Care in Canada* indicates only 23 per cent of stroke patients in Canada are treated in a stroke unit, compared to 58 per cent of patients in Australia and 74 per cent in the U.K. The report calls for greater access to stroke-unit care and specially trained stroke teams.

The award-winning studies were selected from more than 200 research submissions from around the world.

Every year, there are 50,000 strokes in Canada and another 315,000 people live with the after-effects of stroke.

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The **Canadian Stroke Network** (canadianstrokenetwork.ca) is a national research network headquartered at the University of Ottawa. It includes scientists, clinicians and health-policy experts committed to reducing the impact of stroke.

The **Heart and Stroke Foundation** (heartandstroke.ca), a volunteer-based health charity, leads in eliminating heart disease and stroke and reducing their impact through the advancement of research and its application, the promotion of healthy living, and advocacy.

For more information and/or interviews, contact

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Congress information and media registration is at www.strokecongress.ca



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