Technology Licensing Opportunity

Non-Confidential Summary





NOVEL SYSTEM FOR ADMINISTERING & MONITORING COLD THERAPY ROI# 01-003

Opportunity:

Researchers at the University of Saskatchewan have developed a novel device for reducing the impact of suspected stroke and head trauma in a pre-hospital setting. The device is portable, non-invasive, and easy to use.



Background:

Temperature is a critical determinant in limiting the amount of neural damage resulting from a stroke. Patient hospital admission temperature has been shown to have direct impact on stroke outcomes. The therapeutic window for intervention is relatively small (3 hrs post event) and the application of cooling strategies may extend this window and reduce the inflammatory response. The application of cooling to patients with suspected stroke and head trauma is advocated based on clinical and animal studies that demonstrate long-term neural and behavioral benefits. Devices currently used for applying cold therapy are designed for use in a tertiary care setting. Therefore, a critically important lag in treatment exists while patients are transported to the hospital.

Invention:

A U-shaped collar is placed around a patient's neck and cooling inserts are placed over the carotid arteries to effect cooling of the blood as it flows to the brain. The system includes a temperature monitoring device by which the effect of cooling can be determined, recorded and/or regulated. Clinical trials to test cooling effect and temperature monitoring of the device on healthy humans were successfully completed.

> Industry Liaison Office 121 Research Drive, Suite 501 Saskatoon, SK, S7N 1K2 Tel: (306) 966-1465 | Fax: (306) 966-7806

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Researcher profiles:



Vivian Ramsden, R.N., Ph.D. Associate Professor, Dept. of Academic Family Medicine

Research interests: Stroke and cardiovascular disease prevention; primary health; health promotion; clinical research methods; participatory research methods.



Jim Thornhill, Ph.D. Special Assistant to the OVPR: Health Research Professor, Dept. of Physiology

Research interests: Animal models of focal and global cerebral ischemia; role of inflammation to the neural damage caused by cerebral ischemia; neuroprotective effects of hypothermia.

Patent Status: US Patent No. 6,682,552 CA Patent No. 2,403,421

Development Stage: Initial clinical testing completed & working prototype available.

For more information, please contact:

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