



## Peel-Halton Region Aims to Minimize Damage to Heart Attack Patients Automated non-invasive RIC therapy is the result of Canadian innovation and development

**Toronto, Ontario, July 25, 2016** -- In Canada, there are more than 70,000 heart attacks each year, resulting in more than 14,000 deaths. The FIRST study – *Field Implementation of the autoRIC<sup>®</sup> Device in STEMI (ST-segment Acute Myocardial Infarction)* – aims to reduce the long-term effects of heart attacks by reducing the amount of permanent damage they cause, since larger heart attacks lead to worse patient outcomes including heart failure.

The **FIRST implementation** is unique to anywhere in the world and brings together partners from across the healthcare sector to examine a non-invasive therapy that triggers the body's own defence mechanisms to protect heart attack patients against heart damage. Led by William Osler Health System (Osler), the study brings together teams from across the health care industry, including Peel Regional Paramedic Services, Halton Regional Paramedic Services, Trillium Health Partners, and the Sunnybrook Centre for Prehospital Medicine, with support from Rescu and the Li Ka Shing Knowledge Institute at St. Michael's Hospital. The non-invasive autoRIC<sup>®</sup> Device used in the study has been developed by CellAegis Devices in Toronto which specializes in medical devices for heart conditions.

"We are extremely excited to take part in the first North American study exploring the technique known as 'remote ischemic conditioning' prior to coronary intervention to reduce heart muscle damage as a result of a heart attack" said Dr. Sheldon Cheskes from Sunnybrook Centre for Prehospital Medicine, the principal investigator for the study. "This study has the potential to truly impact outcomes through the use of a simple, inexpensive technique that can be applied either in the emergency department or prehospital [ambulance] care field."

Supported by the Health Technology Exchange (HTX)-led "Resources for Evaluating, Adopting and Capitalizing on Innovative Healthcare Technology" (REACH) funding program, this real-world study will evaluate the clinical and economic benefit of this novel therapy in the Halton-Peel region. Patients experiencing a heart attack will be treated with the autoRIC<sup>®</sup> Device either in the ambulance (by Peel and Halton paramedic services) or in the emergency departments of Brampton Civic Hospital or Trillium Healthcare Partners. This treatment has been added to standard treatment for heart attacks. The benefit of the autoRIC<sup>®</sup> Device treatment will be assessed by comparing the clinical outcomes – including hospital readmissions and future heart attacks – of heart attack patients treated with the autoRIC<sup>®</sup> Device compared to those not treated with the device.

"REACH is an innovative program, which leverages multiple levels of health care delivery, technology and business in a way that has not been possible up to now," said Rocky Ganske, CEO of CellAegis Devices Inc. "It is very exciting for me to see that the CellAegis, which started with ground-breaking research at the Hospital for Sick Children in Toronto and was developed and manufactured in Ontario, will now be utilized in clinical practice to improve outcomes in patients experiencing heart attacks. Healthier patients also stay out of the hospital longer, and we expect the autoRIC<sup>®</sup> device treatment to decrease the overall cost of health care delivery in Ontario. CellAegis is proud to be involved with the dedicated group of individuals in the FIRST Study."

Ultimately, the study could result in this innovative technique being adopted by health care professionals across Canada and around the world.

“At Osler, our research program is establishing itself as an evaluation platform where new technologies and approaches to the delivery of innovative care in our community can be rigorously assessed,” said Dr. Ronald Heslegrave, Chief of Research, William Osler Health System. “The FIRST Study will allow us to gather evidence to evaluate the value of the autoRIC<sup>®</sup> device in real-world conditions and support its potential adoption by the health care system. The support provided by the REACH program allowed multiple EMS services, multiple hospital providers and industry to collaborate in this joint venture to find innovative approaches to deliver better heart health to our community and the province.”

“We are thrilled to be working with motivated healthcare delivery organizations that are taking the lead on utilizing innovative medical technologies within their institutions. As these organizations strategize on their high priority needs and generate an outcome driven plan to pilot and/or procure innovative healthcare solutions, the system not only shifts towards a pull-technology model, but also allows ground breaking solutions to be more easily accessed by Ontarians”, Shahira Bhimani Vice President Innovation Services, HTX.

### **About the REACH Program**

Resources for Evaluating, Adopting and Capitalizing on Innovative Healthcare Technology (REACH) is a new matching grant funding program managed by the Health Technology Exchange (HTX) with support from the Government of Ontario. The goal of REACH is to help Ontario public health care delivery organizations use new ways to evaluate, procure and more rapidly adopt beneficial medical technologies addressing high-priority health system problems. For more information, visit [www.htx.ca/content/what-is-reach](http://www.htx.ca/content/what-is-reach).

### **About the FIRST Study Participants**

#### **CellAegis Devices:**

CellAegis Devices is a Toronto-based medical device manufacturer which is commercializing the autoRIC<sup>®</sup> Device. This device automatically delivers [Remote Ischemic Conditioning \(RIC\)](#) to provide a non-invasive, cardio-protective therapy shown to reduce heart damage during heart attacks and other cardiovascular procedures. The autoRIC<sup>®</sup> Device is approved by Health Canada and in Europe for the delivery of RIC therapy. CellAegis is currently finalizing the syndicate for a ‘Series C Preferred’ financing round to support FDA Approval, finalization of significant current trials that will change guidelines for standard of care, and commercialization in the EU and Canada. For more information, visit [www.cellaegis.com](http://www.cellaegis.com).

#### **William Osler Health System:**

As one of Ontario’s largest community hospital systems, Osler serves a population of over 1.3 million people living in one of the fastest growing and most culturally diverse regions of Canada. Together, the emergency departments at its two hospitals – Brampton Civic Hospital and Etobicoke General Hospital – are the busiest in the Canada with over 600 visits per day. The population served by Osler is more vulnerable to cardiac problems, among other chronic disease issues, at a younger age so the medical need for new approaches is great. For more information, visit [www.williamoslerhs.ca](http://www.williamoslerhs.ca).

**Trillium Health Partners:**

Trillium Health Partners is one of the largest community-based, acute care facilities in Canada. Comprised of Credit Valley Hospital, Mississauga Hospital and Queensway Health Centre, Trillium Health Partners serves the growing and diverse populations of Mississauga, West Toronto and surrounding communities. Trillium Health Partners is a research and teaching hospital affiliated with the University of Toronto Mississauga and the Mississauga Academy of Medicine. For more information, visit [www.trilliumhealthpartners.ca](http://www.trilliumhealthpartners.ca).

**Sunnybrook Centre for Prehospital Medicine:**

The Sunnybrook Centre for Prehospital Medicine at Sunnybrook Health Sciences Centre operates the largest Base Hospital Program in Canada, is the largest Base Hospital Program in Canada, designated by the Ontario Ministry of Health and Long-Term Care to provide medical direction, leadership and advice in the provision of ambulance-based prehospital emergency health care across many cities in Ontario. It is one of the most comprehensive medical systems in the world. It is responsible for directing the medical care provided by seven Emergency Medical Services (EMS) across Ontario that provide emergency ambulance services to approximately 4.5 million people; oversees the activities of over 2,000 paramedics and 3,200 firefighter responders; and is responsible for the care provided to 400,000 EMS patients annually. For more information please visit [www.emergencymedicine.utoronto.ca](http://www.emergencymedicine.utoronto.ca).

**Rescu at the Li Ka Shing Knowledge Centre at St. Michael's Hospital:**

Rescu runs the largest research program of its kind in Canada, working with more than twenty EMS and fire services within the Toronto Regional RescuNet that includes Durham, Halton, Hamilton, Muskoka, Peel, Simcoe, Toronto and York regions. Rescu has also partnered with the Ontario Air Ambulance (Ornge), which serves the province of Ontario with both fixed wing and helicopter response to field calls and interfacility transfers. For more information please visit <http://stmichaelshospitalresearch.ca/research-programs/rescu>.

**Peel Regional Paramedic Services:**

Peel Regional Paramedic Services (PRPS) provides paramedic services to the Region of Peel which is comprised of the cities of Brampton and Mississauga and the Town of Caledon. The Region is the sole provider of pre-hospital care and response - a service district encompassing 1250 square kilometers with a population of 1.4 million people. This makes PRPS one of the largest municipal paramedic services in Ontario as well as one of the most advanced prehospital systems. For more information please visit [www.peelregion.ca/paramedics/about-para/](http://www.peelregion.ca/paramedics/about-para/).

**Halton Region Paramedic Services:**

Halton Region Paramedic Services (HRPS) provides emergency services to over 450,000 Halton residents in the region in Burlington, Halton Hills (Georgetown and Acton), Oakville, and Milton. HRPS responds to over 50,000 calls for service annually. For more information please visit [www.halton.ca/cms/One](http://www.halton.ca/cms/One).

**Shared Services West:**

Shared Services West is a non-profit organization with the goal to drive value for money through the regionalization of strategic sourcing of products and materials for health care. As health care today is facing significant challenges due to insufficient funding coupled with budgetary deficits, there is a need to find and drive greater value within existing processes. The reality of an aging and diverse population requires greater focus be directed to patient care. Shared Services West has partnered with this team of health care providers to ensure that positive clinical findings from this study also meet the economic needs of Ontario to supply healthcare solutions that are economically responsible.

For more information please visit [www.sharedserviceswest.ca](http://www.sharedserviceswest.ca).