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For Immediate Release

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***Medical Cyclotron opens at Lawson and St. Joseph's Health Care, London***  
**ANOTHER FIRST FOR LONDON RESEARCH COMMUNITY**

**LONDON, Ontario** – February 25<sup>th</sup>, 2010 marks an exciting day for Lawson Health Research Institute and St. Joseph's Health Care, London as the new state of the art Cyclotron and PET Radiochemistry Facility opens its doors. This new facility is instrumental in providing patients with the most advanced medical diagnostic imaging technology available today, and will allow London researchers to perform cutting edge medical research.

"Lawson imaging researchers have been world leaders dating back to the 1980's when researchers at St. Joseph's Hospital performed the first Canadian MRI. The opening of this facility is critical to keeping them at the forefront," comments Dr. David Hill, Scientific Director, Lawson. Lawson imaging researchers will use hybrid imaging platforms such as PET/CT, SPECT/CT and PET/MRI to explore new imaging applications in the areas of cardiology, neurology, mental health, metabolic disease, and cancer. "The Cyclotron and PET Radiochemistry Facility will produce the radiopharmaceuticals to use with these new imaging applications."

GE Healthcare's PETtrace™ cyclotron is a type of particle accelerator that is used in the process of producing positron emitting radiopharmaceuticals. These positron emitting radiopharmaceuticals are used in an imaging procedure called positron emission tomography or PET, which is routinely used in the diagnosis and treatment of cancer and other diseases and conditions. The radioisotopes generally used in PET are short-lived, with half-lives between two and 110 minutes, after which time they are no longer radioactive. Because of this short half life, it is ideal that they are generated on site. In the past, isotopes for patient care and research have come from Hamilton, which limited their availability and use.

The most common radiopharmaceutical utilized today in PET scans is fluorodeoxyglucose (FDG). The new, on-site medical cyclotron, can be used by Lawson to produce Fluorine 18, which is subsequently synthesized into FDG for use at St. Joseph's Hospital and other centres across Ontario. "PET scanning can provide information on both the location and the extent of abnormal tissues that is not always found through the use of MRIs or CT scans," states Cliff Nordal, President & CEO, St. Joseph's Health Care, London. "With the opening of the Cyclotron and PET Radiochemistry Facility, we will be able to provide an increase in PET scans for patients, savings to health care costs, and access to new isotopes previously unavailable."

A critical part of the new facility is the Radiochemistry Research Lab. The focus of this lab is the development of new cyclotron targets to produce radioisotopes and novel radiopharmaceuticals. "The new Cyclotron facility and the state of the art imaging equipment of St. Joseph's Hospital, along with the expertise of Lawson Imaging, makes us very optimistic when looking toward the

future of hybrid molecular imaging in nuclear medicine,” says Dr. Michael Kovacs, Director, Cyclotron & PET Radiochemistry Facility. With research, the cyclotron and PET imaging may help alleviate some of the isotope shortages arising from the shut down of the Chalk River nuclear reactor. “Chalk River produces radioisotopes that are used for SPECT scans,” says Dr. Kovacs, “As part of our research plan, we will investigate a process for producing radioisotopes such as technetium-99m for the SPECT imaging platform. In fact, Lawson recently received a research grant to produce technetium-99m directly as a replacement for the Chalk River molybdenum-99 generators that are used to generate technetium-99m for SPECT cameras.”

This project was made possible from a grant awarded in 2003 from the Canada Foundation for Innovation, with matching funds from the Ontario Research Fund and industry partners including GE Healthcare Canada, Comecer S.P.A. and Waters Limited to support innovative research in the area of hybrid imaging. Part of the \$27 million imaging grant included the creation of the compact medical cyclotron facility, which will support hybrid imaging.

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#### ***About Lawson Health Research Institute***

As the research institute of London Health Sciences Centre and St. Joseph's Health Care, London, and working in partnership with The University of Western Ontario, Lawson Health Research Institute is committed to furthering scientific knowledge to advance health care around the world. [www.lawsonresearch.com](http://www.lawsonresearch.com)

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Our "healthymagination" vision for the future invites the world to join us on our journey as we continuously develop innovations focused on reducing costs, increasing access and improving quality and efficiency around the world. Headquartered in the United Kingdom, GE Healthcare is a \$17 billion unit of General Electric Company (NYSE: GE). Worldwide, GE Healthcare employs more than 46,000 people committed to serving healthcare professionals and their patients in more than 100 countries. For more information about GE Healthcare, visit our website at [www.gehealthcare.com](http://www.gehealthcare.com).



For more information, please contact:

Julia Capaldi, Communications Consultant

Lawson Health Research Institute

519-646-6100 ext. 61098

[Julia.capaldi@lawsonresearch.com](mailto:Julia.capaldi@lawsonresearch.com)

[www.lawsonresearch.com](http://www.lawsonresearch.com)

Arvind Gopalratnam, Public Relations Manager

GE Healthcare

[Arvind.Gopalratnam@ge.com](mailto:Arvind.Gopalratnam@ge.com)

262-501-0777