

## Office of the President

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**PERSONALLY DELIVERED**

His Worship Mayor Fontana & Members, London City Council  
Corporation of the City of London  
300 Dufferin Avenue  
London, Ontario  
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Dear Mayor Fontana & City Council Members,

*Innovation.* It's the lifeblood of any city. It is the difference between mediocrity and success, between status quo and strong growth. Innovation creates business opportunities, employment and prosperity, and enriches the quality of life for everyone. It attracts new capital investment and outstanding talent, leverages opportunity; and, by its very nature, fuels the cycle of resource attraction further. It is what will make London, Ontario a vibrant community over the next 25 years.

This proposal offers an opportunity for the City of London to make a well-placed investment in medical innovation, and our community, through St. Joseph's Health Care London.

St. Joseph's has been an innovator in health care for more than 125 years with global, national and community impact – impact encompassing both leading-edge technology and the care and compassion for which St. Joseph's is renowned. For example, St. Joseph's was the *first hospital in Canada to use ultrasound imaging and Magnetic Resonance Imaging (MRI)*, both now essential, everyday tools in medical care around the world. At the same time, we were the first hospital organization in Canada to care for people of all ages with HIV. This is an example of the blend of science and soul on which St. Joseph's was founded and through which it continues to flourish today.

Today, St. Joseph's is at a pivotal time in its evolution. We have transformed our roles, our facilities, and our purpose. We are redefining what it means to be a hospital as the needs of our community grow and change. Innovation and community are at the heart of the revolution in care taking place across St. Joseph's.

We ask the Corporation of the City of London to invest in two **Innovation Streams** in which the City of London can play a lead role with anticipated benefit for years to come. An investment that will foster and support innovation in healthcare technology, spawn new companies, contribute to London's economy, reduce healthcare costs, and keep Londoners, indeed all Canadians, healthier and more productive throughout their lives. **With this letter, we introduce a proposal requesting a total of \$10.3 M for two Innovation Streams in:**

- **Care Innovation for Healthy Communities - \$8.7M**
- **Medical Device Innovation - \$1.6M.**

This is a unique opportunity for the City of London to support innovation and growth throughout our community by fostering leading-edge health research and clinical innovation. These initiatives are in full alignment with our health and academic partners as we work together with the University of Western Ontario, London Health Sciences Centre and others to build a new vision for London as a leading Academic Health Sciences Network nationally.

### ***St. Joseph's Health Care London – Redefining the Future of Health Care***

Hospitals were once focused almost exclusively on treating acute illness and injury. Today, chronic disease – the kind that people live with and health professionals manage for years – accounts for *more than half* of all healthcare spending. Almost 80% of Ontarians over the age of 45 have a chronic condition, and of those, about 70% suffer from two or more chronic conditions. Chronic disease is a special challenge in the southwest, where the incidence of chronic bronchitis, high blood pressure, heart disease, arthritis and rheumatism, and diabetes is *higher than the provincial average, affecting 1 in 4 of us.*

When poorly-managed, chronic diseases lead to absenteeism, serious complications, hospitalization, high use of health care and social support resources, poor quality of life, and untimely disability and death. Well managed, they need not stand in the way of full and productive lives in our community.

With an annual operating budget of \$430M and more than 4,440 staff members, St. Joseph's provides a unique cadre of specialized programs and services across five major sites – St. Joseph's Hospital, Parkwood Hospital, Mount Hope Centre for Long Term Care, and Regional Mental Health Care, London and St. Thomas. Many of our services are designed to keep people *out* of conventional acute care hospitals by helping them manage chronic conditions effectively at home and in the community. These programs include internationally-recognized surgical and imaging services, teams and technology that have combined to make hospital stays obsolete in many areas of advanced acute care. Other programs are focused on helping people from across the region recover from devastating accidents and illness and restore their ability to live to their fullest. And still others offer the full range of expert, compassionate teams to help people live their final days in dignity and comfort.

Our renewed vision reflects St. Joseph's new place as the specialty hospital organization of the future: *From the shortest visit to the longest stay, we earn complete confidence in the care we provide, and make a lasting difference in the quest to live fully.*

## **Innovation Stream #1: Care Innovation for Healthy Communities**

### ***Clinical Research Centre at St. Joseph's Hospital***

Under the guidance of the Lawson Health Research Institute, the future *St. Joseph's Hospital Clinical Research Centre* will serve as a hub for hospital-based research in several vital areas of chronic disease. Hospital-based research is truly "bench to bedside -and back." Scientific investigation is inspired by issues faced by patients and healthcare providers every day. The discoveries made by researchers in the hospital-based lab are put to immediate use at the patient bedside, improving lives and advancing care treatments.

If we can provide the right environment for London-based researchers to flourish, we arm them to compete nationally for external funding opportunities. Virtually all funds provided to the Lawson, including those raised by our Foundation, are matched through external sources. This demonstrates the power of the investment in local hospital-based research at Lawson.

The goal of the new 18,000-square-foot dedicated Clinical Research Centre will be to substantially reduce the complications resulting from chronic diseases, improve quality of life, and prevent hospital re-admissions. Unlike most research programs, the proposed hub is closely linked with Canadian and international industry who will not only evaluate latest medical technologies in London, but will engage in joint research and development that will create both jobs and the potential for new small to medium sized enterprises. Given the new mandate of St. Joseph's in the regional healthcare system, there is the opportunity to coordinate and rapidly develop a unique cluster of programs addressing the management and control of chronic diseases such as diabetes, cardiovascular disorders, eye disease, degenerative bone conditions and fractures, which collectively account for over half of the current expenditure in the hospital system. Each of these programs has a strong research arm with linkages to the medical technology industry, and they are underpinned by Canada's largest research group in molecular diagnostic imaging. We have the opportunity to connect the component parts into an integrated centre within a new physical environment that will facilitate the rapid testing of ideas and technologies from our own researchers, and from global industry, and will create new high quality jobs. The Clinical Research Centre at St. Joseph's Hospital is a project that builds on London's outstanding international reputation for health research – which is often a well-kept secret right here at home!

The potential impact of an investment in research efforts in London is enormous. Successful innovations will find their way quickly into clinical use, helping to keep patients healthy and productive, and reducing costs for the health system. An established reputation for research

excellence coupled with this new and relevant Centre, will act as a magnet for external funding, clinical trials, physicians and other highly-trained professionals. Discoveries also lead to economic opportunities including spin-off companies that help to support more research and contribute to the economy. A dedicated Centre with a unique research focus such as this attracts interest, talent and external funding.

An example of this is the prototype upon which it is based -- the equally innovative Aging, Rehabilitation & Geriatric Care Centre (ARGC) at St. Joseph's Parkwood Hospital. Fostering synergy by bringing researchers together in one state-of-the-art facility, the Centre has generated extraordinary research output – 80 peer-reviewed publications and more than 200 national and international presentations in the past year. *Moreover, the ARGC alone attracted more than \$2M in clinical trials revenue and \$33M in peer-reviewed grants in 2009/2010!* This level of output and resource attraction is the result of a research entity funded entirely through local sources and opened just five years ago.

The Clinical Research Centre at St. Joseph's Hospital has similar potential to attract funding and highly-qualified personnel, create jobs and economic growth, and improve the quality of life for people in London. Consider that:

- Researchers at Lawson and elsewhere in London generate more than 70 inventions a year, the second-highest number in Ontario.
- 70% of research funding is used for salaries.
- In total researchers at Lawson and its London partners attract more than \$220 M in research funding
- Lawson Health Research Institute alone employs 90 PhD scientists, more than 200 clinician scientists, and a total of 1200 staff; it is a major economic driver of London's growing biomedical reputation.

### ***Molecular Imaging***

Molecular imaging is the next frontier of medical diagnostics in which short-lived and safe radioactive tags are attached to molecules that will target and reveal diseased tissues in fine detail, not just the anatomy but the biochemistry and even altered gene expression; all non-invasively. This allows sub-types of disease to be identified rapidly and the correct medications or other interventions applied on a more individualized basis. The Lawson Imaging Group has a long history of innovation and delivered the first MRI image in Canada. Four years ago they were awarded \$24M from the federal government to completely upgrade their technologies to develop the imaging techniques of the future. This included the installation of a *cyclotron* at St. Joseph's, one of only five in Canada, to create the isotopes, and a radio-pharmacy laboratory to create new biomarkers. In partnership with a private sector distributor, this facility now operates as a business to supply the growing market of radioactive tracers for molecular imaging across Ontario.

The unique assembly of the latest in imaging equipment and the reputation of the Imaging Group at St. Joseph's Hospital, *now ranks as one of only five such world class sites in the world.* An example of this reputation is evident in the Lawson Imaging group's pending application with the federal government to serve as the national headquarters for a new network for molecular imaging (MiNET) and has requested \$25M to be matched to \$44M by industries. If successful, London will be the hub of a network of cyclotrons and laboratories with 16 locations from Vancouver to Montreal that will determine and share best practice for manufacturing, will enable consistent distribution of products for customers, will be a one-stop shop for partner industry, and will organize a national training network for the next generation of scientists and technicians. A goal of the network is to develop new imaging isotopes generated from cyclotrons that previously required nuclear reactors, such as those produced at Chalk River, where supply was compromised in 2010.

Imaging is a modality that now serves as the centerpiece of medical diagnostics, and is utilized in virtually all medical disciplines. St. Joseph's new *Clinical Research Centre* will serve as an important place where the Imaging Group can continue to advance its work in the treatment of chronic and other diseases.

One such innovation made possible through past investment in imaging at St. Joseph's is the development now underway of a specialized new *Breast Care Centre*. This initiative is a prime example of how care practices can, and should, change to put patient needs first by focusing on access and wait times, and by creating *one* place for diagnosis, treatment, support and technology.

Breast cancer rates in the south western Ontario region are on the rise; indeed, current volumes are 55% over past trends. St. Joseph's new Breast Care Centre will be uniquely designed by the clinical care teams, involving the co-location in one purpose-built facility of both the imaging and surgery clinical teams. The blend of good process, strong talent and technology has enabled St. Joseph's to design a unique Canadian model that will dramatically reduce wait times for women requiring services, from screening and diagnosis through surgery, thereby reducing the stress of waiting for results and undergoing treatment. *The unique approach being taken by the surgical and diagnostic imaging team at St. Joseph's in the design of this new Centre will make it a Canadian first, right here in London.*

### ***Diabetes Care***

Considered to now be reaching 'epidemic' levels across the globe, diabetes is a major health risk worldwide. The diabetes centre at St. Joseph's is a regional specialist facility which has been a clinical trials centre for all major drug innovations in diabetes control for the last 20 years. Recently, it became one of three national trials hubs to be funded by the Juvenile

Diabetes Research Foundation for innovative clinical testing of interventions *originating anywhere in the world* from the Foundation's research network. Diabetes will be a major focus of work in the new centre, and include a new approach of how molecular imaging can be used to develop a more personalized approach to diabetes control.

### ***Cardiac Rehabilitation Program***

Slated to move from London Health Sciences Centre to St. Joseph's Hospital in 2013, this program is a national leader in the provision of individually-tailored rehabilitation design following heart attack and has developed information management tools which effectively monitor patient recovery as they leave the hospital to the community care services. This has resulted in a substantial reduction in hospital readmission and second heart attacks, and the approach is now being adopted as the provincial standard. As one of the key research study pods in the new St. Joseph's Clinical Research Centre, this area is deemed to be an area of great potential for research advancement.

### ***Mental Health Redevelopment***

In the way that today's surgical technique has been transformed by advances such as minimally-invasive robotic surgery, mental health care in Ontario is just now experiencing its own evolution in care approach. Mental illness affects as many as 1 in 4 Canadians in a variety of forms. Along with the immediate impacts on those afflicted and their families, mental illness also has an enormous impact on communities in terms of social services, and lost corporate productivity. In 2009, London City Police responded to 1606 mental health calls for service; that compared to 1537 motor vehicle collisions. Mental health care *is* a community issue that impacts city service.

The way in which mental health care is provided is changing. A focus on *hope, health and recovery* is changing care approaches, and transforming the patient environments in which care is delivered.

With one of the largest mandates in Ontario, St. Joseph's Health Care London is rebuilding two mental health care facilities in our region--a 156-bed facility in London which will replace Regional Mental Health Care, London, formerly known as the London Psychiatric Hospital; and an 89-bed forensic facility in St. Thomas. New facilities featuring bright, open and therapeutic purpose-built spaces that support this new approach to care will replace the current 75-year old London facility, and offer an innovative new care environment for those with persistent mental illness in our community.

A significant investment is being made by the provincial government for these new facilities with a combined funding model of close to \$1B. Of the total, \$16 M is required to be raised locally.

An investment in the ***Innovation Stream #1: Care Innovation for Healthy Communities*** would require the following:

Clinical Research Centre <ul style="list-style-type: none"> <li>• Construction</li> <li>• Equipment</li> </ul>	\$3.3M
Imaging ( <i>breast, chronic disease, other medical disciplines</i> )	\$2.0M
Mental Health Care Redevelopment	\$3.4M
<b><i>Sub-total for Innovation Stream #1</i></b>	<b>\$8.7M</b>

**Innovation Stream #2: Medical Device Innovation**

Building on its historic environment of medical inquiry, St. Joseph’s Hospital is also becoming a nationally-recognized hub for medical device innovation. Innovation Stream #2 focuses on Medical Device Innovation and involves two of St. Joseph’s pinnacle surgery and treatment programs – St. Joseph’s Hand & Upper Limb Centre (HULC) and the Ivey Eye Institute, Canada’s largest eye treatment centre. Both world-renowned as centres of excellence in care, teaching and research, a new thrust in medical device innovation will not only advance care, but will attract further education, research and economic interest nationally and even internationally.

***Orthopedic Engineering Laboratory – Surgical Mechatronics***

St. Joseph’s hosts one of North America’s most acknowledged group in specialized hand and upper limb surgery. This group has, for many years, developed new devices for orthopedic implants and replacement joints, new placement tools, and new fixatives to prevent device failure. This has been achieved with an in-house bioengineering fabrication and testing facility operated jointly with the UWO Faculty of Engineering. This facility is slated to be doubled in size given the industry demand for partnerships in research and development, for testing facilities and for a linked clinical trials environment.

***Ophthalmology Devices Testing Program***

The Ivey Eye Institute at St. Joseph’s Hospital is one of Canada’s largest, and has become a preferred centre for industry to showcase and test new technologies associated with ophthalmic diagnostics and treatments. This is complemented with a basic science laboratory that is able to explore the molecular and cellular changes associated with eye disease, and the effectiveness of interventions. A national opportunity exists to leverage the Ivey’s clinical scope and serve as a test centre for new technologies and modalities associated with Canada’s eye care industry, an industry that is also at the forefront of caring for an aging population.

Surgical Mechantronics to advance surgical best practice	\$1.2M
Ophthalmology Devices Testing	\$400,000
<b>Sub-total for Innovation Stream #2</b>	<b>\$1.6M</b>

**A Unique Opportunity**

In 1999, the City of London became one of the first communities in Ontario to support hospital redevelopment with a generous commitment of \$15M (of which \$4.5M was designated for St. Joseph’s Health Care London), toward a \$330M project. *Ultimately, that investment leveraged \$1.4 billion in construction costs and equipment purchases across London’s acute care hospitals, including St. Joseph’s Hospital. Now that’s ROI!*

Today, you have another opportunity to be at the forefront in supporting health care innovation as a key part of London’s economy, growth and well-being. By investing \$10.3 M in these exciting new innovation streams, you will be helping to fuel job creation, economic growth, infrastructure development for the future, and improve the health and quality of life of citizens.

This package of funding priorities for St. Joseph’s Health Care London represents a portion of a \$40-50M capital campaign in development at St. Joseph’s for more than a year. Confidentially, community leader **Jeff Macoun**, Senior Vice President at London Life has volunteered to serving as Chair for this campaign, the largest of its kind in the history of our organization. With the full support of both the hospital and Foundation Board of Directors, we conducted a community feasibility study earlier this spring and there is very strong community support for the strategic priorities outlined in this initial proposal. More on the results of this Study can be shared in the formal proposal.

Additionally, we are currently in confidential dialogue with other private sector funders about these and other funding priorities at present. *Some have indicated that our dialogue cannot advance without knowing what the city commitment to these priorities will be. We believe that a city commitment to this research and clinical platform at St. Joseph’s will inspire other private commitments.*

St. Joseph’s is proud to be a part of London’s fabric and future. We are the specialty hospital of the tomorrow, right here at home today. We are dedicated to the finest care, teaching and research teams. We are focused on regaining, sustaining and improving health while helping people live to their fullest, no matter the circumstances. And with our partners, we are on the move to re-ignite London’s rightful place as a centre of health care excellence and community vitality.



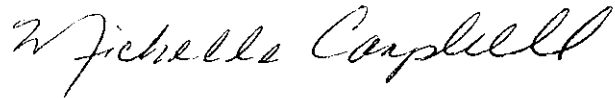
London's large medical research leadership through such entities as St. Joseph's and the Lawson Health Research Institute has developed largely without city support, but has been recognized by private funders in its own community and beyond. *We ask the city to now consider a leadership gift to support this important local economic driver.*

"Care" has always been in our name. And, so is "London". We remain committed to doing the best for our community now and long into the future, and invite our community to make a well-placed investment in that future. We look forward to presenting a full proposal with more details about the two Innovation Streams and their potential impact on the future of our community.

Sincerely,



Gillian Kernaghan, MD, CCFP, FCFP  
President & Chief Executive Officer  
St. Joseph's Health Care London



Michelle M. Campbell  
President & Chief Executive Officer  
St. Joseph's Health Care Foundation

cc *Mr. Jeff Fielding*  
*Chief Administrative Officer*  
*Corporation of the City of London*