



TO:	CHAIR AND MEMBERS INVESTMENT AND ECONOMIC PROSPERITY COMMITTEE MEETING ON JULY 29, 2013
FROM:	HARVEY FILGER DIRECTOR OF CORPORATE INVESTMENTS AND PARTNERSHIPS MARTIN HAYWARD MANAGING DIRECTOR, CORPORATE SERVICES AND CITY TREASURER, CHIEF FINANCIAL OFFICER
SUBJECT:	London's Medical Innovation and Commercialization Network Vision

RECOMMENDATIONS

That, on the recommendation of the Director, Corporate Investments and Partnerships and the Managing Director, Corporate Services, Chief Financial Officer and City Treasurer, the following actions **BE TAKEN** regarding the development of London's Medical Innovation and Commercialization Network:

- a) The vision for London's Medical Innovation and Commercialization Network **BE SUPPORTED IN PRINCIPLE** subject to the preparation of a governance structure; and
- b) In collaboration with St. Joseph's Health Care Foundation, London Health Sciences Foundation, Lawson Health Research Institute, Robarts Research Institute, London Health Sciences Centre, St. Joseph's Health Care and Western University, Civic Administration **BE DIRECTED** to develop a governance structure for the Medical Innovation and Commercialization Network which would then be presented at a forthcoming meeting of the Investment and Economic Prosperity Committee.

PREVIOUS REPORTS PERTINENT TO THIS MATTER
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1. December 18, 2012: *A Path to Prosperity: Community Business Ideas to Stimulate our Economy*, Investment and Economic Prosperity Committee, Corporate Investments and Partnerships.
2. February 19, 2013: *Investment and Economic Prosperity Proposal Assessment Process Update # 2*, Investment and Economic Prosperity Committee, Corporate Investments and Partnerships.
3. April 29, 2013: *Investment and Economic Prosperity Project Updates*, Investment and Economic Prosperity Committee, Corporate Investments and Partnerships.
4. May 21, 2013: *Investment and Economic Prosperity Projects – Public Input*, Investment and Economic Prosperity Committee, Corporate Investments and Partnerships.



BACKGROUND

By way of background, on January 23, 2012 Municipal Council was presented with the 'Developing a Strategic Investment and Economic Prosperity Plan' report, where a process was proposed for the purpose of developing the Strategic Investment and Prosperity Plan. Outlined in that report was a proposed process by which selected projects would move from conception to implementation. As a result, the City of London received 49 ideas from members of our community. All delegates who brought forth a proposal, and for which contact information was available and communication direction provided, were asked to complete the due diligence checklist for short listing projects.

As part of the due diligence review, the submission and satisfactory completion of the specific elements listed within the checklist were essential for the proposal to move forward. For proposals where a completed checklist was not submitted, a fair review and categorization took place. The primary evaluation of the proposals was based on careful review and analysis of the proposed ideas in relation to the listed definition of economic development; this analysis allowed for the appropriate classification of the proposals based on the four proposed categories: Economic Development, Social Prosperity, Idea Bank, or Other.

The Corporate Investments and Partnerships staff prepared a report (December 18, 2012) for the Investment and Economic Prosperity Committee (IEPC) that presented a shortlist for the purpose of accelerating London's economy and fostering private sector investment in the City. This report, endorsed by Municipal Council in February, 2013, presented five proposals best suited to the advancement of the goal and objectives of London's Prosperity Plan (*Refer to Appendix A and B for Council Resolutions*).

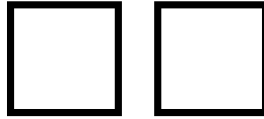
On the 19th of February 2013, a proposal assessment update report was presented. This report outlined prosperity project next steps with respect to the financial plan, public engagement plan and project operational plans. The financial plan was addressed in the context of the budget process. Subsequently, on February 28, funding in the amount of \$1.1M was allocated to contribute to the financial support required to move the Economic Prosperity Plan forward.

In addition, the February 19th report also outlined a public engagement plan; a multi-forum approach that gathered feedback from both the general public and specific stakeholder groups through a variety of communication means. The overall feedback results are summarized in the "Investment and Economic Prosperity Projects - Public Input" report.

As per Council direction and on the recommendation of the Director of Corporate Investments and Partnerships and the Managing Director, Corporate Services, Chief Financial Officer and City Treasurer, based on the original Medical Research Fund recommendation, further outlined in Appendix C, a joint vision has been developed: London's Medical Innovation and Commercialization Network.

DISCUSSION

London Health Sciences Centre (LHSC), St. Joseph's Health Care London, Lawson Research Institute, Robarts Research Institute and Western University have come together for the purpose of creating jobs, improving health care, fueling economic change and furthering London's reputation as an international leader in the health sector. Through this **unprecedented collaboration**, the proposed London's Medical Innovation and Commercialization Network, full proposal available in Appendix D, will "translate medical discovery into products and processes that generate economic and social benefits in our community and beyond" (Appendix D).



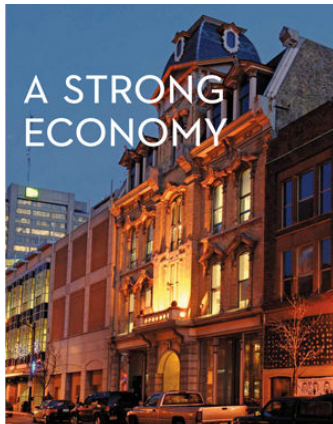
The City of London investment of \$10 million will activate the creation of the network and result in an immediate leveraging of \$20 million: \$10 million in matching funds from Western University and a commitment from Western's development team to fundraise an additional \$10 million. This initial funding will facilitate the leveraging of further investments from other levels of government and the private sector to secure an overall goal of \$80-\$100 million.

Building upon collective research strengths and advantages while also supporting research most conducive to medical innovation and economic growth, the proposed network will focus on three centers of excellence:

1. "A centre for research and innovation in **musculoskeletal disease**, serving as the home for world-leading research and development in bone and joint disorders.
2. A **biomedical devices** institute that will house research, innovation and the commercialization of novel disease interventions.
3. A centre for innovation in **image-based medicine**, where researchers will develop and test new patient care technologies and techniques to be used around the world."

(Appendix D)

London's Medical Innovation and Commercialization Network will support and advance City Council approved strategies through the following means:



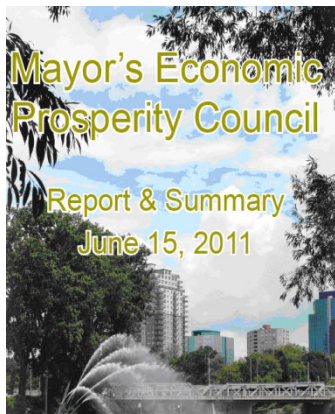
London's Medical Innovation and Commercialization Network will support the 2011 – 2014 City of London Strategic plan through:

- The expected creation of **350 jobs**
- An estimated economic impact of **\$52.5 million**
- The leveraging of investment to a goal of **\$80-\$100 million**
- The creation of construction jobs through the redevelopment of Western Discovery Park
- Building of beneficial partnerships



London's Medical Innovation and Commercialization Network will support the 2011 – 2014 City of London Strategic plan through:

- Increasing the health and well-being of all citizens
- Improving patient care for the people of London and Southwestern Ontario
- Developing unprecedented clinical research hubs at LHSC and St. Joseph's
- Supporting individuals at all stages of life, from newborns to the elderly, and from newcomers to the established



In addition to alignment with the City of London Strategic Plan, London's Medical Innovation and Commercialization Network complements and builds upon recommendations made in the June 15, 2011 Mayor's Economic Prosperity Council Report. Identified in this report is an opportunity to create a commercialization fund for the purpose of supporting and encouraging the commercialization of research. Also addressed in the Mayor's Economic Prosperity Council Report and Summary, is the potential to further London's reputation as a leader in health research. The Medical Innovation and Commercialization Network vision couples these ideas and serves to strategically support economic development in London, Ontario.

The vision for London's Medical Innovation and Commercialization Network outlines a business centred environment which fosters the development of collaborative research across disciplines. The Network will provide a unique opportunity for health sciences, life sciences, physical sciences, engineering and imaging to converge under an overarching intent to serve as a hub of industry partnerships and commercialization (Appendix E).

CONCLUSION

To ensure the strategic results of City Council are realized through the translation of this vision into a tangible result, a number of intermediate project steps are required. The first step in such a process is to develop a governance structure in association with network partners. Therefore, it is recommended that the vision for London's Medical Innovation and Commercialization Network be supported in principal, and Civic Administration be directed to further investigate the proposal for the purpose of developing a governance structure.



PREPARED AND SUBMITTED BY:	PREPARED AND SUBMITTED BY:
CATHY DZIEDZIC SPECIALIST, CORPORATE INVESTMENTS AND PARTNERSHIPS	MAT DALEY SPECIALIST, CORPORATE INVESTMENTS AND PARTNERSHIPS
REVIEWED AND RECOMMENDED BY:	REVIEWED AND RECOMMENDED BY:
HARVEY FILGER DIRECTOR, CORPORATE INVESTMENTS AND PARTNERSHIPS	MARTIN HAYWARD MANAGING DIRECTOR, CORPORATE SERVICES AND CITY TREASURER, CHIEF FINANCIAL OFFICER

cc:

Dan Ross, President and CEO, London Health Sciences Foundation
 Michelle Campbell, President and CEO, St. Joseph's Health Care Foundation
 Chris Boucher, Associate Vice President, Development, London Health Sciences Foundation
 Laurel Hardgrove, Campaign Director, St. Joseph's Health Care Foundation
 Dr. David Hill, Scientific Director, Lawson Health Research Institute
 Dr. Michael Strong, Dean, Schulich School of Medicine and Dentistry, Western University



Appendix A: Council Resolution: Recommendations RECEIVED

January 16, 2013

M. Hayward
Managing Director, Corporate Services and City Treasurer, Chief Financial Officer

H. Filger
Director of Corporate Investments & Partnerships

I hereby certify that the Municipal Council, at its session held on January 15, 2013 resolved:

3. That, on the recommendation of the Managing Director, Corporate Services and City Treasurer, Chief Financial Officer and the Director of Corporate Investments and Partnerships, the following actions be taken with respect to the development of a Strategic Investment and Economic Prosperity Plan:
 - a) the document entitled “A Path to Prosperity: Community Business Ideas to Stimulate our Economy” attached to the staff report dated December 18, 2012, **BE RECEIVED**; it being noted that reference to J. Malkin in the above-noted document should read “London Multicultural Community Association”;
 - b) the Civic Administration **BE DIRECTED** to make the necessary arrangements to hold a public participation meeting and to circulate the document noted in part a) above, to obtain public input; and,
 - c) the Civic Administration **BE DIRECTED** to report back at a future Investment and Economic Prosperity Committee (IEPC) meeting providing information with respect to the public comments received through the consultation process;

it being noted that the IEPC heard the attached presentation from the Director of Corporate Investments and Partnerships and M. Daley and C. Dziedzic, Specialists, Corporate Investments and Partnerships, with respect to this matter, and heard a verbal update from J. Yanchula, Manager, Community Planning and Urban Design, with respect to the Fincore project for the SOHO development, advising that a report will be going forward to the Planning and Environment Committee on February 5, 2013, related to this matter. (3/1/IEPC)

C.Saunders
City Clerk
/rr

cc: A. Zuidema, City Manager
J. Fleming, Managing Director, Planning and City Planner
G. Hopcroft, Director, Intergovernmental and Community Liaison
B. Warner, Manager, Realty Services
J. Yanchula, Manager, Community Planning & Urban Design
M. Daley, Specialist II - Corporate Investments & Partnerships
C. Dziedzic, Specialist II - Corporate Investments & Partnerships



Appendix B: Council Resolution; Recommendations ENDORSED

February 13, 2013

H. Filger
Director of Corporate Investments & Partnerships

I hereby certify that the Municipal Council, at its session held on February 12, 2013 resolved:

3. That, on the recommendation of the Director of Corporate Investments and Partnerships, the following actions be taken with respect to the proposed updated investment and economic prosperity proposal assessment process:
 - a) the updated investment and economic prosperity proposal assessment plan to guide the timeline by which proposals will be developed, and the process by which selected proposals will evolve from ideas to executable projects, including the proposed public engagement plan **BE ENDORSED**; and,
 - b) the synopsis of the January 12, 2013 public consultation **BE RECEIVED**. (3/2/IEPC)

C. Saunders
City Clerk
/rr

cc: M. Hayward, Managing Director, Corporate Services and City Treasurer, Chief Financial Officer
J. Fleming, Managing Director, Planning and City Planner
G. Hopcroft, Director, Intergovernmental and Community Liaison
E. Gamble, Director of Corporate Communications
M. Daley, Specialist II - Corporate Investments & Partnerships
C. Dziejczak, Specialist II - Corporate Investments & Partnerships



Appendix C: London Health Science Foundation and St. Joseph's Health care Foundation Proposal Analysis

London Health Sciences Foundation (LHSF):

Summary: LHSF is an accredited charity that serves to link the community with health care experts for the purpose of continuing medical excellence. Through philanthropic means the LHSF seeks to inspire investment in London Health Sciences Centre (LHSC) and works to strengthen relationships between the community and health care. LHSC is one of Canada's largest acute care teaching hospitals; is London's largest employer and hires an average of 1 100 individuals each year. LHSC pays more than \$700 million in salaries and purchases over \$57 million in supplies from local companies.

The proposal is requesting the City of London commit \$7 million per year over five years (\$35 million total) to create an International Centre of Excellence in Surgical Technology and Innovation. The centre is a core priority of the LHSC and LHSF current \$200 million fundraising campaign. The \$35 million will support the following initiatives:

- \$18 million for minimally invasive, computer assisted surgical technologies (surgical systems, surgical equipment, equipment upgrades, imaging systems, neurosurgery robot);
- \$10 million for New Operating Rooms at Victoria Hospital (Renovation, Construction, Infill and equipment);
- \$7 million for Simulation Technology (Telecommunications upgrade; new operating room beds for simulators; new simulation equipment)

Based on the primary analysis, it has been determined that this proposal falls within the definition of economic development as it is expected to create over 100 long term jobs in medical research; create short term construction jobs; increase the current success rate of securing research grants (up to \$1 million per year); and generate up to \$34.6 million in London's economy through patient visits to the hospitals and surgeon visits to the proposed National Training Centre for Intuitive Surgery (Appendix E4).

Secondary Analysis Tool Findings and Recommendations (Appendix F4):

Overall Rating: 38

Major Strengths and Advantages:

The LHSF proposal speaks to the following key elements of the City of London's strategic plan: **A Strong Economy**; Develop our skilled workforce; Build partnerships with key private, institutional and community partners; **A Caring Community**; Increase the health and well-being of all citizens. For example, the proposed simulation technology will support both the development of a skilled workforce and increase the health and well-being of all citizens. Through the application of the secondary analysis tool, the major advantages of the LHSF's proposal included: 1. The expected creation of 200 high paying, knowledge industry, long term jobs; 2. The potential to leverage additional investment from both the private sector and higher levels of government. LHSF has a proven track record of success in fundraising and leveraging investment.

**Potential Limitations:**

The vision and mission of LHSC is as follows:

Vision: Exceptional Experiences, Extraordinary People, Engaging Partnerships. An inspiring and leading academic community:

- Driven to achieve excellence in patient care/service & safety
- Dedicated to improving the patient and family experience
- Transformed by discovery and innovation
- Committed to collaborative partnerships

Mission: An academic hospital, committed to improving health and delivering value for citizens of London, the South West Region and beyond. Building on our tradition of leadership, stewardship and partnership, we champion patient-centred care, with a spirit of inquiry and discovery, and a commitment to life-long learning.

LHSC directly or indirectly employs over 15 000 people in the London area. However, as described in the LHSC vision and mission, the fundamental purpose of the organization is to provide and improve health care in our community. In Ontario, the funding of these efforts has historically been provided by higher levels of government.

The direct cost to the City of London relative to the number of long term jobs created was high at \$175,000 per long term job created. Given the zero percent tax environment and assuming a 1% property tax increase is equal to approximately \$4.6 million, the \$35 million over five years requested by LHSF could create a need to increase the property tax levy by 1.5% per year solely to support this proposal.

Recommendation:

The economic importance of LHSC is well documented: LHSC efforts represent 6 per cent of London's gross domestic product. However, given the proposal's high cost to the City of London relative to the number of long term jobs created and the potential 1.5% property tax increase to support the project, limitations and barriers are present. For the purposes of this review, the Civic Administration recommends the LHSF proposal not move forward at this time. The LHSF proposal is therefore classified in the idea bank; to be reconsidered should proposal and/or environmental changes warrant. This recommendation relates only to the analytical lens described at the beginning of this report, The City of London may wish to investigate other opportunities to support LHSF/LHSC fundraising efforts.

In the June 15, 2011 Mayor's Economic Prosperity Council Report and Summary the potential to create a commercialization fund for the purpose of supporting and encouraging the commercialization of research was introduced. Also addressed in the Mayor's Economic Prosperity Council Report and Summary, is the potential to further London's reputation as a leader in health research. Given the breadth of research talent, medical expertise and potential for commercialization opportunities, the coupling of these ideas leverages existing competitive advantages and serves to directly support economic development in London, Ontario. It is recommended that the City of London investigate the possibility of committing \$1.0 million per year over 10 years to support a medical research fund. Vital to the investigation into the possibility of this opportunity, would be a legal review concerning Section 106 of the Municipal Act. This initial investment would be used to leverage additional support from the private sector and higher levels of government. At a very high level, researchers would compete through a defined process to obtain funding; the awarding of this funding would be administered by a non-partisan party with considerable expertise in the medical research field. To ensure a return on investment to The City of London, the potential to commercialize the research would play a key a role in the awarding of funding.



St. Joseph's Health Care Foundation:

Summary: The St. Joseph's Health Care Foundation serves to link health care, research, philanthropy and our community for the purpose of supporting St. Joseph's Health Care London. Through philanthropic activities, the foundation contributes to research initiatives, health care advances, medical equipment, and the building of new facilities. St Joseph's has played an innovative roll in London for 125 years and currently employs almost 4000 individuals in our community; paying out \$250 million dollars in direct compensation. In 1999, the City of London invested \$4.5 million in St. Joseph's Health Care London for the purpose of restructuring; this investment fuelled a ten plus year redevelopment cycle that brought over \$1 billion in hospital investment to our community.

The proposal requests the City of London commit 25% of the *Next Step* campaign, totalling \$10.3 million dollars. The *Next Step* campaign is seeking financial support toward the following clinical and research priorities: breast care centre; centre for cognitive vitality; surgical mechatronics laboratory; specialized mental health care and a clinical research centre. The \$10.3 million request of the City of London would support the following initiatives:

- \$8.7 million for care innovation and healthy communities (new clinical research centre, medical imaging, mental health care redevelopment);
- \$1.6 million medical device Innovation (surgical mechatronics and advanced surgical best practice, support of the new Cognitive Vitality Centre which will serve to advance clinical care and research in the mind/brain field)

Please note, at the request of St. Joseph's the request to support the new Cognitive Vitality Centre takes the place of the originally requested Ophthalmology devices testing associated with the Ivey Eye Institute. The dollar value associated with both requests remains constant at \$400 000.

Based on the primary analysis, it has been determined that the proposal falls within the definition of economic development as it is expected to create research jobs; create short term construction jobs; and generate wealth in our community through clinical trial revenues and tens of millions of dollars in peer reviewed grants (Appendix E5).

Secondary Analysis Tool Findings and Recommendations (Appendix F5):

Overall Rating: 44

Major Strengths and Advantages:

Through the creation of a new clinical research centre; support for medical imaging; mental health care redevelopment; surgical mechatronics; and support for the new Cognitive Vitality Centre the St. Joseph's proposal speaks to key elements of the City of London strategic plan: **A Strong Economy**; Develop our skilled workforce; Build partnerships with key private, institutional and community partners; **A Caring Community**; Increase the health and well-being of all citizens. Through the application of the secondary analysis tool the St. Joseph's proposal scored highly on the total number of long term jobs, estimated at 195, and short term jobs, estimated at 600, that would be created should the proposal come to fruition. Another major strength of the St. Joseph's proposal is the potential for research spin offs that catalyze business start-ups and result in wealth generation and job creation in our community.

Potential Limitations:

The vision and mission of St. Joseph's Health Care London are as follows:

Vision: 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.

- Mission: We help all who come to us for care to maintain and improve their health. We work with people to minimize the effects of injury, disease and disability. We do this by pursuing excellence in care, research and education in a wide range of hospital, clinic,



long term and community-based settings. In the spirit of our founders, we care in the example of Jesus Christ and in keeping with our values. We attend to the wholeness of each person – body, mind and spirit. We are a life-affirming community, nurturing a living spirituality through all stages of life, health, suffering and death. We ensure ongoing ethical reflection. We advocate for those who are vulnerable and without a voice. We actively pursue and build partnerships to create a better health care system.

Although the economic impacts of the existing St. Joseph's operation and the proposal are very substantial, it is worth noting that the fundamental purpose of these endeavours is to provide and improve health care; as outlined in the vision and mission statements above. Funding for such endeavours traditionally falls within the purview of higher levels of government.

Assuming a 1% property tax increase is equivalent to approximately \$4.6 million and the \$10.3 million proposed by St. Joseph's would be provided over five years, it is possible the City of London may have to increase the tax levy by almost half a percentage point for five years solely to support this proposal. The direct cost to the City of London relative to the number of long term jobs created was moderately high at \$52 820 per long term job created.

Recommendation:

St. Joseph's has been providing health care in the London community for over 125 years and employs over 4400 individuals across five major sites. St. Joseph's plays a vital role in the economy of London. However, in a time of zero percent budget increases and given that the direct cost to the City of London to support long term job creation is moderately high, the proposal as submitted is not recommended by Civic Administration to move forward in the process at this time. The St. Joseph's proposal is therefore classified in the idea bank; to be reconsidered should proposal and/or environmental changes warrant. This recommendation relates only to the analytical lens outlined at the beginning of this report, The City of London may wish to investigate other means to support St. Joseph's 'the Next Step' fundraising campaign.

In the June 15, 2011 Mayor's Economic Prosperity Council Report and Summary the potential to create a commercialization fund for the purpose of supporting and encouraging the commercialization of research was introduced. Also addressed in the Mayor's Economic Prosperity Council Report and Summary, is the potential to further London's reputation as a leader in health research. Given the breadth of research talent, medical expertise and potential for commercialization opportunities, the coupling of these ideas leverages existing competitive advantages and serves to directly support economic development in London, Ontario. It is recommended that the City of London investigate the possibility of committing \$1.0 million per year over 10 years to support a medical research fund. Vital to the investigation into the possibility of this opportunity, would be a legal review concerning Section 106 of the Municipal Act. This initial investment would be used to leverage additional support from the private sector and higher levels of government. At a very high level, researchers would compete through a defined process to obtain funding; the awarding of this funding would be administered by a non-partisan party with considerable expertise in the medical research field. To ensure a return on investment to The City of London, the potential to commercialize the research would play a key a role in the awarding of funding.



Appendix D: London's Medical Innovation and Commercialization Network

Our city's leaders in medical innovation – London Health Sciences Centre (LHSC), St. Joseph's Health Care London, Lawson Health Research Institute, Robarts Research Institute and Western University (**Schulich School of Medicine & Dentistry as well as Health Sciences and Engineering**) – are excited to have this opportunity to present a dynamic vision for an unprecedented collaborative research initiative to the City of London's Investment and Economic Prosperity Committee.

We are proposing the development of a new partnership – involving all of these organizations – that will create jobs, improve health care and propel London's economy forward as an international leader in the health sector. **With an investment of \$10 million from the City's Medical Research Fund**, we will leverage our collective strengths in research, patient care, education, training and entrepreneurship to create a robust Medical Innovation and Commercialization Network in London.

The Network will place our city at the leading edge of medical innovation, application and commercialization. Through the novel research that will take place at the convergence of health sciences, life sciences, physical sciences, engineering and imaging, **we will translate medical discovery into products and processes that generate economic and social benefits in our community and beyond.**

The Network will feature three centres of excellence that represent established areas of expertise for London researchers, as well as areas that offer the greatest potential for medical innovation and economic growth:

- A centre for research and innovation in **musculoskeletal disease**, serving as the home for world-leading research and development in bone and joint disorders.
- A **biomedical devices** institute that will house research, innovation and the commercialization of novel disease interventions.
- A centre for innovation in **image-based medicine**, where researchers will develop and test new patient care technologies and techniques to be used around the world.

The Network will build upon the proven track record of research and development success shown by the members of our partnership group. Since 2008, Western, Robarts and Lawson have collectively generated \$24.3 million in commercial income, the fourth-highest such total in Canada; secured 151 issued patents; executed 66 licensing agreements with industry partners; and established 18 new spin-off companies now employing more than 40 people, by far one of the largest clusters of new companies created by a research community in Canada over that time period.

The City's investment of \$10 million will be the catalyst that activates the Network and launches this important medical innovation and commercialization initiative. **Your investment will immediately leverage an additional \$20 million in funding:** \$10 million in matching funds from Western and a fundraising commitment of \$10 million from Western's development team.



This \$30 million in base funding will enable our partnership group to apply for even greater funding in order to meet our overall goal of \$80-100 million. This will include applications to agencies such as the Federal Economic Development Agency for Southern Ontario (which has available funding of \$920 million over five years) and the Canada Foundation for Innovation.

The Network will be critical in leveraging London's strengths as a centre for health and medical innovation and commercialization. It will be developed with a clear intent to serve as a hub for industry partnerships that depend on an integrated innovation and commercialization platform, encompassing internationally respected health care provision, database management and research.

London's Medical Innovation and Commercialization Network will be transformative for our community. Through the Network, we will:

- **Create approximately 350 new jobs.** This includes recruiting to London world-leading scientists, engineers and clinical researchers who will integrate medical discovery with knowledge translation and entrepreneurship. The new jobs – in health sciences, engineering and business – will be full-time, long-term, highly skilled and knowledge-based.

These new knowledge-based workers are estimated to bring a total economic impact of approximately \$52.5 million into the city's economy.

- **Develop unprecedented clinical research hubs at LHSC and St. Joseph's** through the enhancement of internationally recognized clinical research programs. This includes the Hand and Upper Limb Centre (HULC) at St. Joseph's and LHSC's Fowler Kennedy Sport Medicine Clinic and CSTAR (Canadian Surgical Technologies and Advanced Robotics).
- **Provide an immediate boost to London's economy through a significant infrastructure build** – the home of the Network's Convergence Institute – and the related construction jobs.

The redevelopment of Western Discovery Park to create the Convergence Institute will provide the platform for convergent translational (bench-to-bedside) research in the Network's three centres of excellence, including the infrastructure for pre-clinical and clinical research evaluation and the validation of new technologies and techniques in real time.

- **Position London as a world leader in integrated medical research and development** by facilitating collaboration, breaking down traditional silos and capturing the full potential of patient care and commercial opportunities.

For example, a new orthopaedic implant technology could be developed with Engineering and Surface Science Western; it would then be prototyped in the Convergence Institute and clinically tested at LHSC and St. Joseph's. Patenting would occur through WORLDiscoveries and subsequently the technology would be licensed to a company that would establish itself in the Convergence Institute to further refine and bring the device to market.



- **Improve patient care for the people of London and Southwestern Ontario** through advanced research and the development of innovative new medical products and processes. As a centre for the development of new technologies, treatments and models of care, these discoveries will be accessible to the people of London and Southwestern Ontario first.
- **Develop core business and management expertise** to shape London’s research agenda – meeting commercial and societal needs, developing business plans and supporting nascent local companies – and enhance interdisciplinary training programs for highly qualified personnel in entrepreneurship and translational research.

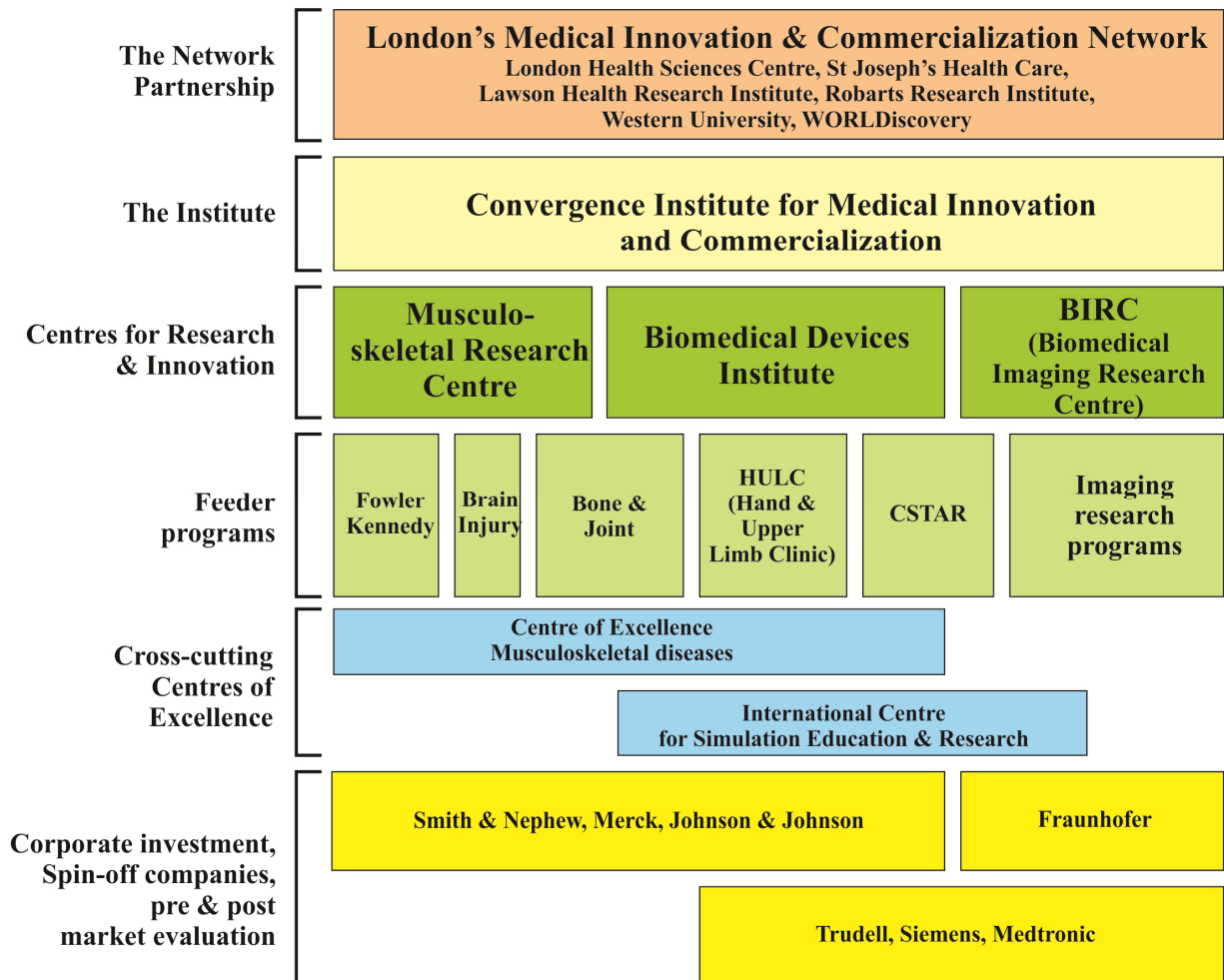
Through this work, we will help to recruit new businesses in the health sector to London and continue to support wealth creation for our city’s existing companies.

London’s Medical Innovation and Commercialization Network will be a hub, connecting researchers, clinicians, students, business people and companies – enabling meaningful collaborations and accelerating the introduction of new medical devices into the marketplace. Please see the attached (Figure 1) for a snapshot of the overarching relationships involved in the Network’s development.

Thank you for the opportunity to provide this vision document. We look forward to discussing in further detail an investment of \$10 million from the City’s Medical Research Fund – an investment that will allow London’s health care leaders to develop a creative and convergent research and entrepreneurial environment for medical innovation and commercialization in our city.



Figure 1: The Overarching Relationships





Appendix E: Presentation London's Medical Innovation and Commercialization Network

An Opportunity for the City of London:

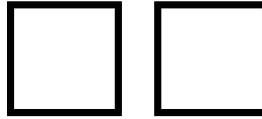
London's Medical Innovation and Commercialization Network

How we got here

St. Joseph's Health Care London & London Health Sciences Centre championed unique, institutionally-based proposals early in the IEPC process

London's new Medical Research Fund created through IEPC has been the catalyst for development of a unique and much larger *leveraging* opportunity around medical research for London that includes the hospitals *and* Western University

Today, we present a collaborative opportunity that has naturally evolved through the IEPC process; one that brings together a common, synergistic vision and creates larger economic opportunities for all of our institutions and for our city



The Partners

London's health sector has come together in a true partnership that builds on our collective strengths in health care and research to create jobs and economic impact for London

- London Health Sciences Centre & Foundation
- St Joseph's Health Care & Foundation
- Lawson Health Research Institute
- Robarts Research Institute
- Western University
 - Schulich School of Medicine & Dentistry
 - Faculty of Health Sciences
 - Faculty of Engineering

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- London Health Sciences Centre & Foundation
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- Lawson Health Research Institute
- Robarts Research Institute
- Western University
 - Schulich School of Medicine & Dentistry
 - Faculty of Health Sciences
 - Faculty of Engineering
- **City of London**



Our Presentation Team

Dr Michael Strong
Dean Schulich School of
Medicine & Dentistry
Interim Scientific Director,
Robarts Research Institute

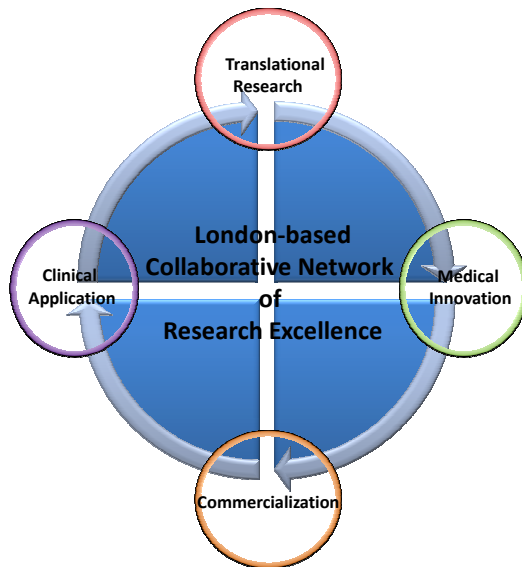
Dr David Hill
Scientific Director, Lawson
Health Research Institute
Vice President, Research
London Health Sciences Centre &
St. Joseph's Health Care

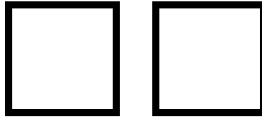
Dan Ross
President & CEO
London Health Sciences
Foundation

Michelle M. Campbell
President & CEO
St. Joseph's Health Care
Foundation
Vice-President – Fund
Development
St. Joseph's Health Care London

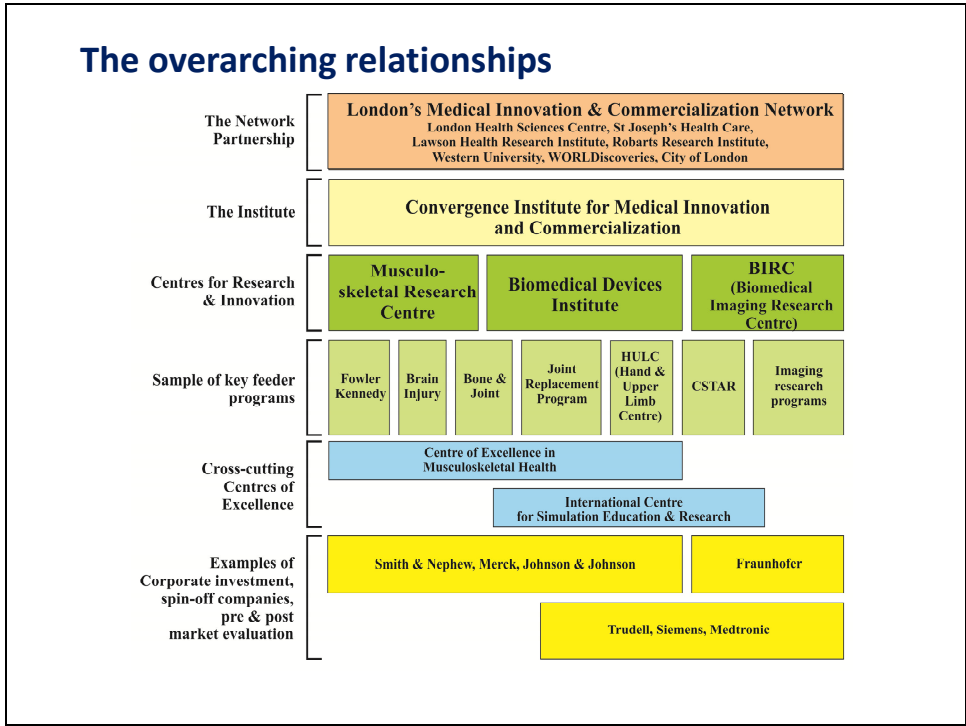
The vision

An interdisciplinary collaborative network of research excellence that will place London at the leading edge of translational research medical innovation, application, and commercialization





The overarching relationships



A proven track record in commercialization

Since 2008, Robarts, Lawson & Western have collectively:

- generated \$24.3 million in commercial income (4th highest in Canada)
- secured 151 Issued patents world-wide
- executed 66 licensing agreements
- established 18 new spin-off companies employing more than 40 people





A proven track record in economic impact

Using the Lawson Health Research Institute as an example:

- **Currently employs 1,200 individuals with approximately \$25M in earnings paid out to Londoners annually and \$15M in annual revenue generated in the local economy**
- **Approximately \$21M in external services purchased annually**
- **The imaging program (BIRC) alone has brought in over \$100M in new equipment funding through provincial and national competitions**

Creating 350+ new jobs

- **Immediate impact of construction**
- **Create new knowledge-based, sustainable jobs through:**
 - **the recruitment of leading scientists, engineers and clinical researchers at the convergence of life sciences, physical sciences, engineering and imaging**
 - **attracting biotechnology based industry, including medical devices, to an integrated research & development centre**
 - **350 high paying professional jobs in London**



Economic stimulation

- **Provide an immediate boost to the London economy through a significant infrastructure build of a value of 75 – 80M**
- **Provision of core business and management expertise**
- **Provision of seed-capital for “open and distributive” innovation concepts**
- **52.5M in sustainable long term revenue generation based on current hiring projections**

Infrastructure development

- **Development of national and international centres of excellence that reflect the existing strengths of the health sector**
- **Enhanced interdisciplinary programs for high quality personnel (HQP) in entrepreneurship and translational research**
- **Development of a core physical space/presence to facilitate “convergence” and define the niche**
- **Infrastructure for pre-clinical and clinical evaluation and validation of new techniques (in real time)**



The enablers

Patient Care

- World class hospitals and clinical facilities working towards a common goal
- Advanced patient registry and database management
- Fowler Kennedy Clinic
- Hand and Upper Limb Centre (HULC)

Research

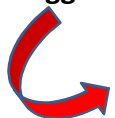
- CSTAR and developing Schulich International Simulation Education initiative
- GLP-accredited pre-clinical testing animal facility
- National leader in musculoskeletal research
- Western research excellence clusters program

Business Development

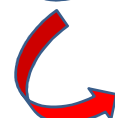
- WORLDiscoveries
- Ivey Centre for Health Innovation
- TechAlliance, CIMTec, LEDC
- Stiller incubation centre

The funding opportunity (80 – 100M)

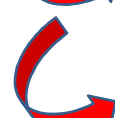
Your investment of 10M from the Medical Research fund will trigger:



An immediate match of \$10M from Western University



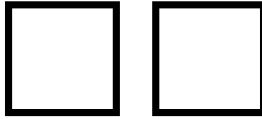
A commitment to raise another \$10M from Western University



A Fed Dev application (currently 920M over 5 years – the timing is right for London to aggressively pursue these funds)



A CFI infrastructure application

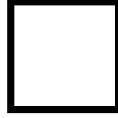
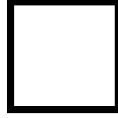


The Convergence Institute



Meeting the City of London & IEPC expectations

Business retention, growth & attraction - industry linkages, spin-off company opportunities - entrepreneurial opportunities	✓
Retain & attract talent - youth opportunities - attract educated professionals critical to a knowledge-based economy	✓
Develop labour force - builds infrastructure and fuels educational opportunities	✓
Community economic development - immediate & sustainable economic impact	✓
Visitor attraction - heightened profile & reputational enhancement - health and wellness reputational enhancement	✓
International differentiation	✓



Questions