

Hon. Charles Sousa
Minister of Finance
Frost Bldg S, 7th Flr
7 Queen's Park Cres
Toronto ON M7A1Y7



Feb. 28, 2014

Min. Sousa,

On behalf of our members, which include more than 80 life science companies, service providers, academic and research institutes and other organizations in Ontario which together represent more than 17,000 employees, researchers and students; Life Sciences Ontario (LSO) would like to offer our input into the 2014 pre-budget consultations.

LSO believes that the life sciences industry is uniquely positioned to move Canada's economy into a prosperous future. By providing jobs for our highly educated youth while tackling our biggest challenges such as healthcare sustainability, healthy food for a growing global population and clean energy to fuel our industries; life sciences has the potential to provide the largest socioeconomic return on investment of any sector. But we need to first make that investment in our science based industries.

Please find enclosed our suggestions as to how the Ontario government could mobilize its resources to effectively grow the life sciences sector; thus enabling both social and economic benefits to all Ontarians.

Finally, LSO would be honored to present to you and the Standing Committee on Finance and Economic Affairs to discuss further the importance of investing in Ontario's Life Sciences Sector.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jason Field', written in a cursive style.

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Life Science Ontario
Diversity of Members, Unity of Voice

**Pre-budget submission
To the Ministry of Finance
Government of Ontario**

February 28, 2014

Executive Summary

Life Sciences Ontario (LSO) is pleased to participate in the Ontario Government's Pre-Budget Consultation process. LSO is a member-driven organization that represents the full breadth of life sciences and companies of all sizes from the small startup to the large multinational. LSO promotes the province's vibrant and diverse life sciences sector by collaborating with governments, academia, industry and other life science organizations in Ontario and across Canada to encourage commercial success throughout this diverse sector. LSO is the Voice for Life Sciences in Ontario.

Why is a vibrant life sciences sector in Ontario important? Simply put, innovation is the key to solving the biggest challenges that our province faces including a strong and competitive economy, a sustainable public healthcare system, environmentally sustainable energy, materials and fuels, safe and healthy food for all and high quality jobs for our highly educated youth. But the sector is struggling and inaction threatens that which could, and should, become the cornerstone of the Ontario economy. The time for action is now.

LSO has consulted extensively with members across the province and across the broad range of stakeholders in the life sciences sector. LSO is confident that the implementation of the following recommendations is central to leveraging the significant assets that Ontario enjoys and creating a vibrant life sciences sector that Ontarians deserve.

Recommendations

Recommendation #1: Access to Capital

Develop policies that support a robust and diverse risk-capital ecosystem that includes Venture Capitalists, angel investors and better access to the public capital market.

Recommendation #2: Strategic Procurement

In cooperation with life sciences community, create a set of policy options for a strategic procurement program directed at facilitating life sciences innovation

Recommendation #3: Industry-Government Partnership

Create a semi-annual roundtable on life sciences innovation policy bringing together industry executives and senior representatives from across government including the Ministry of Finance, Research & Innovation, Economic Development, Trade & Employment, Health & Long-term Care, Energy, Agriculture, Food and Rural Affairs, Environment and Training, Colleges & Universities.

Recommendation #4: Support for innovation and commercialization

Implement the Jobs & Prosperity Council's recommendation for a single Jobs & Prosperity Fund that would "be evaluated, consistently and rigorously, through three policy filters: Ontario firms "going global", innovation and productivity."

Introduction

In 2013, the renowned Dr. Mark Poznansky was awarded LSO's Lifetime Achievement Award and accepted by presenting a letter from 2050 in which he asked:

“Did Ontario embrace the life sciences revolution to create private sector jobs and wealth from discoveries made in academic institutions? Or did they continue to derive their primary wealth from mining their natural resources and in advanced manufacturing? I desperately hope that the former was the case.”

It is the vision of LSO that we build in Ontario a vibrant life sciences sector that speaks with a unified voice to create an environment that fosters collaboration, innovation and commercial success. To do so, Government, academia, industry and life science organizations must work together to foster commercial success for those companies within the sector.

For its part, LSO works to achieve this through advocacy, education and the promotion of the industry locally, nationally and internationally and by collaborating with governments, academia, industry and other life science organizations in Ontario and across Canada to encourage commercial success throughout this diverse sector. LSO is a member-driven organization representing over 100 life science companies, service providers, academic and research institutes, students, individuals and other organizations in Ontario which together represent more than 17,000 people working across the full breadth of life sciences. We represent large multinationals, small start-ups, service providers, municipal governments, and academic institutions. LSO is the Voice for Life Sciences in Ontario.

Why is a vibrant life sciences sector in Ontario important? Simply put, innovation is the key to solving the biggest challenges that our province faces including a strong and competitive economy, a sustainable public healthcare system, environmentally sustainable energy, materials and fuels, safe and healthy food for all and high quality jobs for our highly educated youth.

Consider that 5 of the 10 most research-intensive Canadian firms – companies that spent a high proportion of revenues on R&D – were from the life sciences sector (Research Info\$ource).

Overall Life Sciences/Healthcare venture realized gross pooled mean IRR (Internal Rate of Return) was 15% for the past decade. This is in contrast to 5.5% for all of venture capital, 3% for IT and 4.1% for Software. In fact, every single sub-category of Life Sciences venture showed at least two to three-times better realized IRR than IT counterparts. (Nature Biotechnology 2011) perhaps it is no surprise then that every dollar invested in scientific services generates nearly five times that in GDP; more than 10 times the return on investments in mining/petrol (SECOR/KPMG)

And yet, in the annual Scientific American Worldview Scorecards on Biotechnology Innovation, Canada ranked 3rd overall in 2010. This is widely regarded as a very credible measure and is based on analysis of 6 categories: IP, Education/Workforce, Enterprise Support, Intensity, Foundations and Policy and Stability. In 2011, we dropped to 4th and in 2012 we lost further

ground and were ranked 6th. 2013 saw us decline to 8th spot and there is nothing to indicate a change in the trend for 2014.

With 56% of Ontarians having a post-secondary degree compared to 50% of Canadians and 30% average of the OECD we can be proud of the talent we produce in Ontario. However, the unemployment rate for youth ages 20-24, with a bachelor's degree or higher in areas of STEM (Science, Technology, Engineering and Math) is a staggering 19.4% in this province (2011 National Household Survey – Statscan). The time for action is now.

What can be done?

LSO has consulted extensively with members across the province and across the broad range of stakeholders in the life sciences sector. LSO is confident that the implementation of the following recommendations is central to leveraging the significant assets that Ontario enjoys and creating a vibrant life sciences sector that Ontarians deserve.

Recommendation #1: Access to Capital

Develop policies that support a robust and diverse risk-capital ecosystem that includes Venture Capitalists, angel investors and better access to the public capital market.

- Expand existing SR&ED credits to include small public companies within clearly defined parameters
- Develop an Ontario Small Business Innovation Research (SBIR) program
 - The Small Business Innovation Research (or SBIR) program is a United States Government program, coordinated by the Small Business Administration, in which 2.5% of the total extramural research budgets of all federal agencies with extramural research budgets in excess of \$100 million are reserved for contracts or grants to small businesses. In 2010, that represented over \$1Billion in research funds. Over half the awards are to firms with fewer than 25 people and a third to firms of fewer than 10.
- Create a dedicated life sciences investment fund following the model of the Orbimed-Israel Fund, whereby government contributed significantly to the \$222M fund that invests in companies at varying stages of maturity, from seed stage through growth equity.

The 2013 Ernst & Young Beyond Borders Report showed that more than half (53%) of Canadian biotechnology companies have less than one year of cash, compared to 31% in Europe and 33% in United States. This significant disadvantage means the leaders of Canadian companies spend more time raising capital to survive and less time commercializing innovation and growing their organizations. It is impossible to think that Ontario's life sciences can remain globally competitive without better access to sources of risk capital.

Recommendation #2: Strategic Procurement

In cooperation with life sciences community, create a set of policy options for a strategic procurement program directed at facilitating the adoption of life sciences innovations

The Jobs & Prosperity Council also recognizes the importance (and untapped potential) of public procurement to spur innovation:

- *“The Council believes that public sector procurement can be better mobilized to support innovation and the growth of firms that are producing new and innovative tradable goods and services. The government of Ontario should implement a strategic procurement policy to accelerate the growth of firms producing innovative goods and services in tradable sectors.”*
- Other jurisdictions have effectively used public procurement as a tool for economic growth while maintaining their international trade obligations. For example, the Small Business Innovation Research (SBIR) program in the US is a set-aside program that leverages public procurement (including the very large US defense budget) to support small businesses. So why doesn't Ontario leverage its largest procurement budget (ie. Healthcare) in the same way?
- The good news is there are precedents for this approach in Ontario. The GreenFit program leverages the Province's buying power to create opportunities for new green technology companies as they introduce innovative and sustainable solutions into the marketplace. The underlying principle of this type of program could be expanded to other areas of public procurement, including healthcare.

LSO recommends the government of Ontario, in cooperation with life sciences industry representatives, build on this recommendation by the Jobs & Prosperity Council by creating a set of policy options for a strategic procurement program directed at facilitating the adoption of life sciences innovations.

Recommendation #3: Industry-Government Partnership

Create a semi-annual roundtable on life sciences innovation policy to bring together industry executives and senior representatives from across government including the Ministry of Finance, Research & Innovation, Economic Development, Trade & Employment, Health & Long-term Care, Energy, Agriculture, Food and Rural Affairs, Environment and Training, Colleges & Universities.

Innovation is the key to solving the biggest challenges that are priority for the Ontario government; including:

- A strong and competitive economy
- A sustainable public healthcare system
- Environmentally sustainable energy, materials and fuels
- Safe and healthy food for all
- High quality jobs for our highly educated youth

The above priorities cut across several ministry mandates within the Ontario government. The life sciences sector is unique in that it plays a significant role in all these areas. In fact, it would be easily arguable that no other industrial sector is more aligned with the priorities of the Ontario

government. Yet, surprisingly, there is no central, cross-government managing body to champion policy development in support of the sector.

In 2005, Premier McGuinty recognized the importance of innovation to Ontario's future by creating the Ministry of Research and Innovation (MRI); and then served as its first minister. In 2011, faced with an austerity budget and a minority government, MRI was consolidated with the Ministry of Economic Development & Trade. Although we recognize the difficult financial challenges facing the Ontario government, many in the private sector likened this strategy to one we often see in the private sector; namely cutting research and future innovations to improve the bottom line in the short-term. It left a gap and created an urgent need for leadership and coordination across government with regards to innovation policy. That's why we are very pleased that this government has re-established MRI. We see this as a positive move that will help fill this void of innovation leadership within the government; but we must act in concert to take full advantage of this opportunity.

A mechanism needs to be established to ensure an ongoing two-way dialogue with policy makers and innovators. In 2010, Ontario published a Life Sciences Commercialization Strategy that, among other initiatives, committed to establishing a Life Sciences Partnership Council to achieve this goal of prioritizing and communicating the needs of this sector to policy makers. To date, this council has not been formed.

LSO recommends that a semi-annual roundtable on life sciences innovation policy be held; bringing together industry executives and senior representatives from across government that could include several ministries such as the Ministry of Research & Innovation, Economic Development, Trade & Employment, Health & Long-term Care, Finance, Energy, Agriculture, Food and Rural Affairs, Environment and Training, Colleges & Universities.

One of the challenges associated with innovation is that it is not a well-defined concept that is easily measurable. Further, depending on who you ask within government or the life sciences sector, you will likely get different perspectives on what defines innovation (and life sciences even). To that end, it will be important to establish a clear and well-defined agenda and target outcomes for the semi-annual roundtable.

LSO recommends that the agenda and target outcomes for the semi-annual roundtable on life sciences innovation policy include the following aspects:

Agenda:

- Discuss the sector's current challenges, trends and key policy recommendations
- Discuss government's current challenges, policy direction and policy development under consideration
- Seek solutions that will result in mutual benefits to the Province via the life sciences sector

Target Outcomes:

- Develop and champion innovative policies in support of innovation, commercialization, productivity and competitiveness in life sciences through policy recommendations
- Adopt the Industry definition of Life Sciences
- Develop a coordinated, industry and government-wide strategy for life sciences based economy
- Create and track reasonable metrics for success that drive accountability while recognizing the challenges inherent to commercializing life sciences technologies
- Benchmark Ontario's competitiveness in life sciences against other leading jurisdictions
- Develop positions and take leadership on key issues such as support for innovation, access to capital, intellectual property protection and the overall competitiveness of Ontario's business environment for life sciences companies.

Recommendation #4: Support for innovation and commercialization

Implement the Jobs & Prosperity Council's recommendation for a single Jobs & Prosperity Fund that would "be evaluated, consistently and rigorously, through three policy filters: Ontario firms "going global", innovation and productivity.

In his 2012 report entitled "*Public Services for Ontarians: A Path to Sustainability and Excellence*", Don Drummond makes several recommendations regarding existing support programs, one of which is the consolidation of all business support programs into a single envelop. To this end, the Province created the Jobs & Prosperity Council to review current business support programs.

In their report "Advantage Ontario", the Jobs & Prosperity Council recommend a single Jobs & Prosperity Fund that would "be evaluated, consistently and rigorously, through three policy filters: Ontario firms "going global", innovation and productivity.

LSO supports the need to reform business support programs but we are concerned that the focus of this reform may be misdirected from the original intent of the Drummond report and Jobs & Prosperity Council. For example, "going global" refers to a company's ability and potential to export products and services. The ability to export is often built off of successful sales in a domestic market. Life Sciences companies are at a unique disadvantage in this regard since most domestic sales are subject to barriers inherent to public procurement. Further, productivity is traditionally viewed in terms of manufacturing. In the case of Life Sciences, there is often no consideration to the productivity benefits of many life sciences innovations that have a broader impact to the Ontario economy (such as hours lost to illness for example).

LSO recommends that the Province, in partnership with LSO, review the three policy filters recommended by the Jobs & Prosperity Council to ensure they achieve their desired intention of increasing exports, facilitating commercialization, and improving productivity; while not creating unintended barriers for emerging life sciences companies.

LSO also supports the recommendation from both the Jobs & Prosperity Council and the Drummond report for a consolidated, single window approach to business support programs; with a streamlined, common application process.

Finally, LSO also recommends the Province consider mapping the support programs associated with life sciences, across the spectrum of technology development – from research to market- to clearly identify gaps in support and to develop a strategy to address these gaps.

Conclusion

The Life Science sector in Ontario is one of the provinces greatest assets. From the Bio-energy to Agri-biotech, from Bio health to Bio-industrial, innovation is the key to solving the biggest challenges that our province faces including a strong and competitive economy, a sustainable public healthcare system, environmentally sustainable energy, materials and fuels, safe and healthy food for all and high quality jobs for our highly educated youth.

But the sector is struggling and inaction threatens that which could and should become the cornerstone of the Ontario economy. The recommendations outlined above represent a consensus from the sector on what Government can do to foster the health of Life Sciences in Ontario. The time for action is now.

We appreciate the opportunity to provide input to the Ontario Government as part of its pre-budget consultations. We look forward to further discussions on the implementation of these recommendations. For further information, please contact Jason Field, Executive Director, Life Sciences Ontario at 416-426-7293 or jason.field@lifesciencesontario.ca or visit us at www.lifesciencesontario.ca