Ontario's First Chief Science Officer

Feedback Submission

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Ontario's First Chief Science Officer

The Honourable Reza Moridi
Minister of Research, Innovation and Science
12th Floor, Ferguson Block
77 Wellesley Street West
Toronto, Ontario
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March 22, 2017

Dear Minister Moridi,

OBIO welcomes the opportunity to provide input into the recruitment of Ontario's first Chief Science Officer. OBIO is Ontario's foremost innovation organization in the health science sector and is committed to building a competitive industry that will thrive in the $9 trillion global health economy creating jobs and better health outcomes for Ontario.

In response to the request for input from Government and the following description of the position, OBIO offers the following recommendations for consideration.

> "Within the role, the Chief Science Officer is expected to work for and with research communities, such as research hospitals, universities and research institutes to:
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> - champion high quality science in government and education
> - help the government make decisions on science-based policy issues
> - advise the government on how to support future research and innovation projects
> - publicly promote Ontario as a hub for research across Canada and the world by attracting global research talent
> - lay the groundwork for the next generation of research and innovation jobs by defining the best science strategy for the province"

Research Communities and the Role of Industry

A Chief Science Officer with a good understanding of industry and a respect for its role could drive a globally competitive technology transfer culture, attract global investment and build companies in the province creating stable, high quality jobs and broadening the tax base.

Recommendation #1: OBIO urges the Government to recognize the contribution of research that is done within industry, the critical role of industry in commercializing viable intellectual property and the importance of building jobs and career opportunities for the Province's graduating scientists. To that end, the Chief Science Officer should have a track record of successful relationships with industry, particularly those that ended in agreements concerning the commercialization of academic output that was of benefit to all parties. These characteristics transcend sectors and are important to all research intensive industries from IT to engineering to health sciences.

For example, in Israel, the office of the Chief Science Officer is described as:

*"The **Office of the Chief Scientist (OCS)** of Israel's Ministry of Economy is the support arm of the Israeli government, charged with fostering the development of industrial R&D within the State of Israel." The mission[1] of the OCS has been defined through the country's "Law for the Encouragement of Industrial Research and Development—1984" (The R&D Law) and its operations are facilitated through Israel's R&D Fund, as well as a variety of international programs, agreements and collaborations. Its mission is to assist the advancement of Israel's knowledge-based science and technology industries in order to encourage innovation and entrepreneurship while stimulating economic growth.*

Science Based Decision Making

To ensure Ontario is globally competitive, the Chief Scientific Officer needs to understand technological developments while designing programs and policy. Key to the success of research intensive industries are access to capital, availability of experienced talent and access to markets, adoption and dissemination of local innovations.

Recommendation #2: OBIO commends the government on creating a dedicated position to advise them on science based policy and further encourages the government to enlist the expertise of a qualified Chief Science Officer to formulate policy ranging from funding the generation and commercialization of IP to attracting investment and talent capable of stimulating growth in knowledge based, private sector jobs.

Governments around the world are recognizing the need to understand scientific advancement in order to both take advantage of the opportunities it presents as well as to protect their jurisdictions from risk and possible unintended consequences. The description of the role of the Chief Science Officer of Australia states:

"The world, and Australia with it, is faced with increasingly complex challenges and opportunities, most of which require significant input from science in order to address them fully and appropriately. It is essential then, that the Australian Government has access to the highest caliber independent, and authoritative scientific advice available, to be used to help inform the best course of action for Australia. "

Support for Future Research and Innovation

Access to capital is the principal barrier to successful development and commercialization of IP in Ontario and this has not changed for decades. If this situation is ever to be addressed, the Chief Science Officer needs to work to eliminate the numbers of small, overlapping programs with small amounts of capital to invest in favour of fewer large well capitalized programs. The end result will be an increase in the rate at which IP from academic institutions creates solutions for Ontarians and wealth for the province.

Recommendation #3: OBIO urges the government to task the Chief Science Officer with developing a plan to move beyond the current approach of funding research in academia to a fully integrated system where expenditures attract investment, investment creates growing companies, companies create exports and jobs and the resulting wealth supports the economy, future research and benefits the people of Ontario. Science policy and local investment influence the decision making of the global venture capital industry. The creation of government backed investment funds such as those in Israel, PMV and Gimv in Belgium or Canada's own FSTQ in Quebec have been deployed successfully in company and job creation as well as, in attracting global investors to co-invest in local companies. In 2015 OBIO recommended that Ontario improve access to capital for Ontario Health Science Companies by: creating a health science innovation capital fund, streamlining government programs and addressing barriers to investment and company growth in Ontario's tax policies. These recommendations bear repeating here.

Attracting Global Research Talent

The Chief Scientist should be charged with bringing together extensive national and international scientific networks to assist in providing the most up to date and scientifically robust advice.

Recommendation #4: OBIO encourages the Ontario Government to pursue an individual who is well connected internationally and who is respected both by Academia and by Industry. The ability to attract research talent to a jurisdiction can be influenced by many things including the ecosystem, connectivity, funding, infrastructure and utilization of research output. A Chief Science Officer with broad international networks and experience would add value to any recruitment process.

Research talent can be one of the features that attracts global investment to a region and therefore can be critical to development and growth. Researchers with global expertise and experience are also well positioned to be familiar with best practices and current trends adding value and perspective during consultations and advisory sessions. Researchers who are respected and vetted by international regulatory agencies can play a role in streamlining development and market entry for exports.

Science Strategy

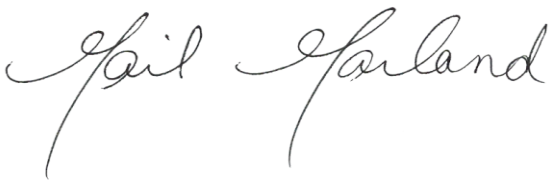
A Chief Science officer with research experience in an industry setting (as well as academia) would bring welcome expertise to the development of a science strategy. It is critical that this office recognize the importance of each stakeholder in the successful creation of "the next generation of research and innovation jobs".

Recommendation #5: Given Ontario's strength in research within universities, hospitals and research institutes, OBIO respectfully recommends that the focus on the next generation of research jobs be within industry and that the job description for a Chief Science Officer includes this as a requirement.

Since its founding in 2009, OBIO has espoused the view that the best science strategy for the province is one that is developed with all parties at the table, academia, government and industry. Supported by the STIC report, OECD data, and Scientific American's World View among others, OBIO has presented the case for job creation in the sciences through: redressing the imbalance between public and private sector research support; the need to adopt policies that fit with global investment practices and meet the needs of commercial entities; and the importance of local markets (business friendly environment) to the commercialization of research output. The benefits to the province from successfully competing in the global health and other science economies cannot be over emphasized.

OBIO thanks you for this opportunity to provide input into the hiring of a Chief Science Officer and looks forward to working with the Government to ensure the success of this initiative.

Sincerely,



Gail Garland
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