

Submission to Pre-Budget Consultations in Advance of the Upcoming Federal Budget

By: BIOTECCanada

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BIOTECCanada is the national trade association representing more than 230 member companies and organizations in Canada's health, life sciences, industrial, agricultural and environmental biotechnology sectors. BIOTECCanada members are reflective of the broad and diverse Canadian biotech ecosystem which stretches across the country and includes: world-class universities and research institutes; SME's; entrepreneurs; regional incubators and technology accelerators; and, large multinational players all of which are powered by a highly skilled and educated workforce.

**Andrew Casey
President and CEO**

RECOMMENDATION:

Federal government to invest \$500 million to establish the *Life Sciences Capital Catalyst Initiative*(LS-VCCI), a life sciences venture envelope with the critical capital necessary and incentives to attract private capital (from Canadian institutional investors Canadian Pension Plan (CPP), OMERS etc. as well as international sources) in order to grow the availability of capital to domestic life science venture funds, top performing later stage companies, as well as key seed stage initiatives.

To maximize the return to government on its investment, the proposed “Life Sciences VCCI” would have three (3) major functions, namely:

- I. **Finance seed and early stage funding vehicles:** These vehicles will support company creation and early stage growth of innovations/companies emerging from Canada’s leading academic institutions;
 - II. **Grow Canadian venture capital fund capacity:** Strengthen and grow the Canadian venture capital investment pool by facilitating the collaboration of Canadian venture capital firms and attract investment from larger domestic investors and investors from outside Canada; and,
 - III. **Create Canadian-based anchor companies:** Provide later stage companies (private or public) access to investment capital to support their ability to grow in Canada and ultimately mature into domestic anchor companies.
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THE STRATEGIC IMPERATIVE OF INVESTING IN CANADA'S LIFE SCIENCE SECTOR

While Canada has endured the grips of global pandemic, the federal government has rightfully invested in scientific research and discovery specifically targeting the needs for addressing COVID-19. These investments ranging from manufacturing supply chain capacity building to basic research to commercial development of therapeutics and vaccines, will play an integral role in securing healthcare options for Canadians. This value cannot be underestimated not only in terms of the relative speed at which decisions were made but also at how this has helped to place Canadian research and life science entrepreneurial expertise at the forefront of global solutions and collaborations.

In response to the current pandemic we have seen the life sciences community both in Canada and globally respond to the urgent demand for novel devices, diagnostics and treatments. The pace at which the sector is executing discovery and development is truly revolutionary. Given what we now know is possible and our collective desire to improve human health, this industry will continue to push development of other solutions in other areas at this pace. As a recognized pillar of the new economy, now is the time to capitalize and to invest competitively in the sector and drive the returns from this investment back into the Canadian economy.

Looking at the global response, it is noteworthy that Canada places in the top of leading nations generating potential vaccines, anti-viral and therapeutics aimed at treating and ultimately preventing COVID-19 infections. Indeed, the COVID-19 virus has served to underscore the value of the biotechnology industry. The solutions developed by just some of the dozens of Canadian companies such as AbCellera, Medicago, IMV Inc, VBI Vaccines Inc, and VIDO Intervac are leading the world along with dozens of other Canadian companies, demonstrate strongly the value the sector can deliver for both Canadians' healthcare and economy. COVID-19 has placed an enormous stress on our communities, healthcare system and economy. To start to return to the world we once knew, we will need: efficient testing and tracing capacity; a diverse suite of anti-viral therapeutics; and, an effective selection of vaccines. In all likelihood, it is the global biotech industry which will need to deliver on all three of these deliverables if we are to return to social and economic normalcy.

The events of 2020 have demonstrated the need to establish a resilient economy over the long term to ensure Canada has the ability to address future COVID-like health challenges. The effects of COVID 19 on the global economy have been no less than devastating. Now as countries seek to tackle the economic realities the pandemic has brought, competition for investment, job creation and economic diversification have intensified. Correspondingly, it is imperative Canada capitalize on its strong capacity in the life sciences to help effect the growth in our new economy.



The federal Health and Biosciences Economic Strategy Table report (HBEST-September 2018) outlined the value and long-term potential for the industry. The goals set in the report, to be completed by 2025, include doubling the number of Canadian companies from 900 to 1800, while also doubling the number of high growth firms from 40 to 80. The HBEST report also set a goal of more than doubling the growth of industry exports from a rate of 4% to 9% to \$26 billion annually. These aggressive targets are bold, but reflect the potential value the industry represents for the Canadian economy.


Canada has established a competitive environment for the creation of R&D focused life sciences companies throughout the biotechnology spectrum. After decades of strategic federal government investment in both university education and sponsored academic research through granting agencies like the Canadian Institute of Health Research, Genome Canada, the National Research Council, the patent estate that forms the backbone of the Canadian Life Sciences sector has grown.

Moreover, this investment has increasingly contributed to the creation of commercial enterprises promising both jobs for highly qualified Canadians and, as importantly, significant therapeutic advances for Canadian patients. Notable recent examples of Canadian biopharmaceutical enterprise successes include Aurinia Pharmaceuticals, Bluerock Therapeutics, Clementia Pharmaceuticals, Epocal, Fusion Pharmaceuticals, Profound Medical, Repare Therapeutics, StemCell Technologies and Zymeworks. This success can be found in all regions of the country

Importantly, Canadian drug discovery and development entities such as adMare Bioinnovations, Toronto Innovation Acceleration Partners (TIAP), CQDM, Centre for Commercialization of Regenerative Medicine (CCRM), Institute for Research in Immunology and Cancer – Commercialization of Research (IRICoR) are successfully working with partners including large multinational pharmaceutical companies, Canadian universities and research centres to develop the next wave of life sciences companies.

It is important to acknowledge these companies did not suddenly emerge in early March of 2020. Before COVID, all were involved in scientific research supported by significant risk capital investment from Canadian based and owned funds that make up Canada's life sciences venture capital ecosystem. This local investment capital is critical to the industry as it typically acts first, allowing enterprises to both de-risk their business plans and achieve the critical mass required to attract the interest and the follow-on capital required to scale life science companies.

As governments continue to invest in university education and sponsored research, it is imperative the receptor capacity of the life science industry be correspondingly augmented through focused investment in Canada's local life sciences venture capital ecosystem. This is particularly important given the significant and timely investments the Government has directed for the sector to secure Canada's COVID response capacity. As the country invests



to help fight this disease, we must maintain the momentum created by these strategic investments.

Other nations are recognizing the strategic importance of the sector and are competing aggressively to grow their domestic life sciences sectors. Canada must keep pace or we risk losing investments made in research and science as the ideas generated are consumed by larger investors in other countries, most notably the U.S. To underscore this challenge, in the US – in the first half of 2020 alone, US\$4.8 billion was raised by 5 US life sciences venture capital funds, with the smallest of these funds at US\$400 million. In terms of new managers, Canada has only seen one new manager emerge in the past 14 years, versus a dozen or so in the US in the past 24 months alone. Simply put, Canadian domestic funds must have the capacity to compete financially with their US and European counterparts to develop life sciences companies in Canada.


THE LIFE SCIENCES INVESTMENT OPPORTUNITY

The Life Sciences VCCI would be a national, dedicated life sciences investment envelope in the amount of \$500 million, within the well-established VCCI framework. Each federal dollar in this envelope would be leveraged with two (2) other dollars, creating a total envelope of \$1.5 billion. This envelope should be committed rapidly – within six to 12 months – to ensure maximum impact so that recipient organizations and companies can then deploy it over the next three years.

The capacity for deployment of an envelope of this size has never been more opportune for Canadian governments and investors. Canada's life sciences venture capital sector has seen significant growth over recent years. Between 2013 and 2019, the Canadian sector has experienced a 121% increase in the number of deals (53 to 117) and a 300% increase in dollars invested (CAD\$271 million to CAD \$1.085 billion). At least five Canadian funds entirely focused in the sector are seeking to raise CAD\$ 800 million over the next 18 months.

Importantly, this envelope would be a critical catalyst, providing the capital required to expand the Canadian venture capital sector to appropriately support the full Canadian life sciences innovation continuum.

This proposal builds on the previous successful VCAP and subsequent VCCI funds created by the federal government. The proposed dedicated Life Sciences VCCI envelope mirrors the fiscal opportunity for deriving investment returns for the Federal government's economic stimulus and growth targets. As of the end of 2018, the impact of VCAP was to create through further leverage more than \$331 million dollars of investment capital directed into the life sciences sector, despite being a minority portion, which helped create 51 life science companies and created or supported more than 4,300 highly skilled jobs.



As of December 2019, Canadian companies supported under VCAP and VCCI from co-investments and High Performing Funds were extensively outperforming all other funds in Canada.

Canadian VC funds – 10-year IRR (Source: BDC)

Sector	31/12/ 2013	31/12/ 2014	31/12/ 2015	31/12/ 2016	31/12/ 2017	31/12/ 2018	31/12/ 2019
Life Sciences	-16.39%	-2.35%	17.74%	15.21%	9.51%	9.53%	16.01%
Non-Life Sciences	-6.42%	-2.35%	1.51%	2.52%	2.79%	5.87%	7.11%
All funds	-6.90%	-2.35%	2.68%	3.52%	3.30%	6.14%	7.93%

Given the maturation and expansion of the industry today, along with the additional VCCI Fund-of-Funds now deployed, companies are actively seeking the game-changing levels of investment required to grow into the next cohort of potential anchor companies identified in the HBEST report that will serve as economic drivers for the recuperating economy. Canada has the capacity to activate this investment within three years. This requires a timely commitment over the next six to 12 months, allowing for the sector to secure commitments from throughout the entire investor network both here at home and globally.

A dedicated life sciences envelope built from the existing VCCI model, managed by life science investment specialists, will secure long-term economic growth within the sector and has the potential to deliver high returns for the federal government as an investor.

The Canadian biotech ecosystem is an economic strength that positions Canada well to compete successfully in the global economic recovery. Canada's biotechnology industry has a demonstrated history of scientific discovery and development which has led to the creation of a robust, diverse biotechnology ecosystem extending to every region of the country. As a result, the sector is poised to deliver solutions for future challenges. The need for post-pandemic economic stimulus and targeted economic growth places this industry at the forefront of immediate impact.

To accomplish this, the government can build on its strategic investments in the biotechnology industry to increase Canada's competitiveness in attracting the necessary investment and talent required to grow the industry and establish it as an economic cornerstone. Growing the amount of investment capital available now into venture capital funding in Canada will fuel the growth of viable companies toward that goal. Canada cannot afford to do anything less than rise to the challenges of today.