

Early Detection of Cancer

Sponsored by Alberta Innovates, Alberta Cancer Foundation and DynaLIFE Medical Labs.

Important Dates*	
Challenge Launch Date:	May 1 st , 2017
Information Webinar:	May 15 th , 2017 To register, send an email to Yi.Su@albertainnovates.ca with the following information: <ul style="list-style-type: none"> ▲ Applicant Name ▲ Applicant Representative Name ▲ A few sentences describing your technology and target market.
Application Portal Opens:	May 19 th , 2017 ▲ Click Here to Access the Applicant Portal
Application Deadline for Stage I:	June 21 st , 2017

*See section 2.5 for a more detailed schedule of events.

Alberta Innovates Contact Information	
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Phone:	780-450-5561

Alberta Innovates

Our vision is to be indisputably recognized as a leader – provincially, nationally and internationally – in catalyzing innovation in Alberta to deliver a resilient and diversified economy, a sustainable environment, and a healthier population. Our role is to be a catalyst, accelerating and convening research and innovation to deliver economic, environmental, health and social health benefits that are aligned to Government policy and needs of the citizens of Alberta and Canada.

Alberta Small Business Innovation and Research Initiative (ASBIRI)

The Alberta Small Business Innovation and Research Initiative (ASBIRI) partners with industry End-users to accelerate the development, demonstration, evaluation, and adoption of made-in-Alberta technologies into the global market. This fund is part of the Ministry of Economic Development and Trade's mandate to strengthen Alberta's innovation ecosystem.

ASBIRI is a flexible, sector agnostic platform program meant to catalyze unique partnerships between relevant stakeholders, industry leaders, and Alberta SMEs to create economic benefits for Albertans. These benefits include the:

- ▲ Promotion, growth, and entry of competitive Alberta companies and their technologies into the global market;
- ▲ Opportunities for economic diversification;

- ▲ Increased investment into Alberta's technology-based industries;
- ▲ Addition of new highly-skilled jobs;
- ▲ Establishment of valuable collaborations across industry, academia, and small business.

For more detailed information about the policies governing the ASBIRI program, click [here](#). This Challenge is built on the foundation of the ASBIRI program guide; therefore it is highly recommended that you familiarize yourself with the program guide prior to applying.

Accelerating Innovations into CarE (AICE)

The AICE program provides funding support to generate real-world evidence in a clinical setting for new technologies developed by SME innovators that have the potential to address priority needs of Alberta's health system. The funding enables the health system to test and validate the impacts of new technologies, particularly on disease pathways or workflow, with the intent of informing adoption and improving the health system and overall health of Albertans.

DynaLIFE Medical Labs

DynaLIFE provides diagnostic laboratory services to more than 2000 physicians and one million patients annually. The laboratory, locally managed from its state-of-the-art facility in Edmonton, performs more than 14 million tests every year. DynaLIFE's mandate is to provide high quality, cost-effective services to clients by assisting in the diagnosis and monitoring of patients' and employees' health. The laboratory employs the newest technologies to ensure that patients receive the best possible laboratory services.

DynaLIFE services are provided by approximately 1000 laboratory employees working at more than 30 sites including hospital laboratories, community patient care centres, and the central testing laboratory. The laboratory also performs referral testing and offers consulting and management services to a wide range of health care organizations.

Alberta Cancer Foundation

The Alberta Cancer Foundation is the proud philanthropic partner for all 17 Alberta Health Services cancer centres. The foundation invests approximately \$20 million across the province each year and every investment must have a direct line of sight to patients and families. The foundation helps accelerate the pace of progress by bringing together donors, patients, health-care providers and researchers to unlock solutions that might have previously been thought impossible. Alberta Cancer Foundation donors help make life better for Albertans facing cancer by reducing its risk, diagnosing it earlier, treating it more effectively and improving the quality of life for patients and families. No matter where in this province someone hears the words, "you have cancer," the Alberta Cancer Foundation offers three in return: "we will help."

Challenge Overview

Background

According to the World Health Organization, cancer is among the leading causes of death worldwide. There is consistent evidence that the early detection and diagnosis of cancer, combined with accessible and effective treatment, results in improvements in cancer related mortality. In addition, the advent of the precision medicine era has expanded the term "detection" to include the mapping of a cancers molecular signature to inform and direct more precise and effective treatment regimens.

This Challenge seeks to identify and support the development of cancer detection and diagnosis technologies that will enhance outcomes for patients with cancer while simultaneously driving the growth

of a local Alberta diagnostics company. The technology proposed should address at least one of the questions as depicted in the Cancer Detection Pathway shown below.



Desired Impact

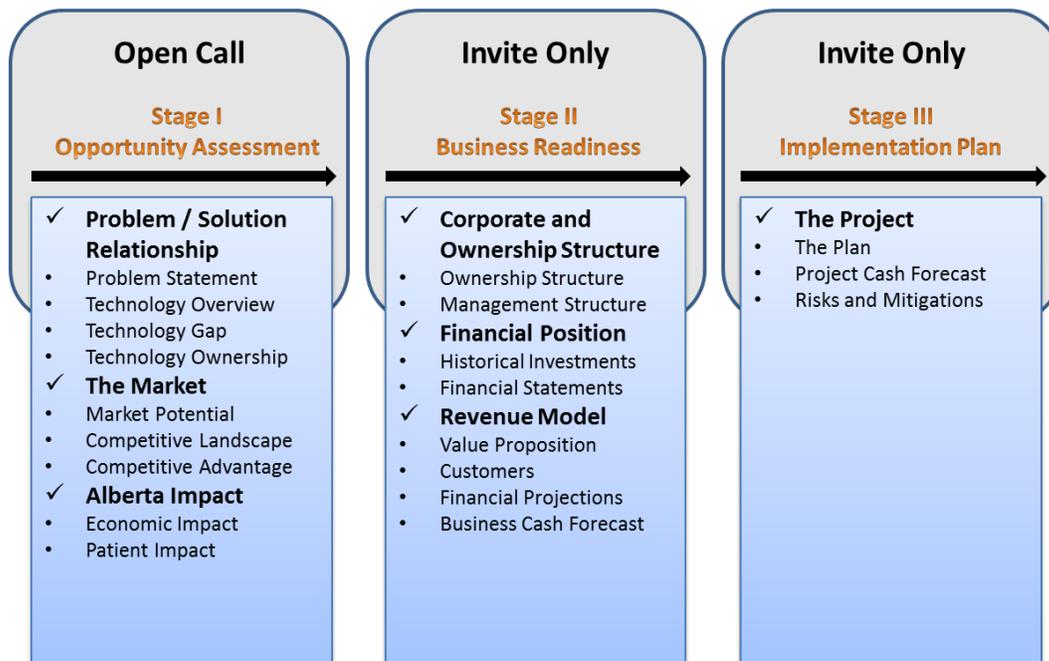
The desired impacts of this Challenge are two-fold:

- ▲ Sustainable and measurable growth of competitive Alberta SMEs into the global diagnostics market;
- ▲ Significant and measurable enhanced patient outcomes for Albertans with cancer;

Process and Evaluation

The Challenge being proposed is broad in scope, inclusionary of technologies across the cancer detection pathway (described above and including recurrence) and agnostic to cancer-type. The focus of this call is on detection technologies that can be applied in a laboratory setting; however, other modalities will be considered (e.g., imaging).

The assessment will be conducted in three stages (see diagram below) with specific information requested at each stage. Applicants are encouraged to apply openly to Stage I; however, Stage II and III applications will be accepted on an invitation-only basis.



Value of Opportunity

This opportunity presents a valuable resource for the commercialization of an Alberta-owned innovation in the health-space. The partnerships developed and resources (in-kind and cash) committed will provide

the collaborative environment needed for value creation. The total funding available for projects supported through this Challenge is up to \$2.0MM, subject to the discretion of Alberta Innovates, Alberta Cancer Foundation, DynaLIFE Dx, and the availability of funds. SMEs will be required to contribute resources (cash and in-kind) to any project that is selected through this process.

Tentative Schedule of Events

The following table outlines the anticipated timeline for the selection(s) to be made for this specific Challenge. Timelines are subject to change at any time by the Alberta Innovates.

Action	Dates
Challenge Launch	May 1 st , 2017
Information Webinar <i>An opportunity for potential Applicants to engage topics relevant to the Challenge.</i>	May 15 th , 2017 (9:30-10:30 MDT) Please register as per the instructions at the top of this Challenge)
Application Portal Opens	May 19 th , 2017  Click Here to Access the Applicant Portal
Stage I Application Deadline	June 21 st , 2017
Selections Communicated & Application Portal Re-Opened	July 12 th , 2017
Stage II Response Deadline <i>Invitation only</i>	August 9 th , 2017
Stage II Presentations (Location TBD)	August 23 rd , 2017
Stage III Selections Communicated and Project Planning Begins <i>Invitation only</i>	August 29 th , 2017
Project Plans Deadline	September 29 th , 2017

Technology Readiness Levels

For this call, technologies at a level of 6 or higher are of most interest. Please refer to the ASBIRI guide for general definitions on Technology Readiness Levels.