

## Genome Alberta

Established in 2005 to focus on genomics as one of the central components of the Alberta Research and Innovation System. Genome Alberta is partnered with Genome Canada and the Province of Alberta and is a not-for-profit corporation that initiates, funds, and manages genomic research and partnerships.

### Mission

To provide leadership in prioritizing, coordinating and enabling world-class genomics research and partnerships in order to create societal and sustainable economic benefits for Alberta and Canada.



### *How We Define Genomics*

The comprehensive study, using high throughput technologies, of the genetic information of a cell or organism, including the function of specific genes, their interactions with each other and the activation and suppression of genes.

This also includes related disciplines such as bioinformatics, epigenomics, metabolomics, metagenomics, nutrigenomics, pharmacogenomics, proteomics, and transcriptomics.



# Large-Scale Applied Research Project 2017

## Genomics and Precision Health

*Notice of Upcoming Funding Opportunity*



**Genome**Alberta

## LSARP 2017 Overview

The 2017 Large-Scale Applied Research Project Competition aims to support projects focused on using genomic approaches to address **challenges** and **opportunities** of importance to Canada's health sector in the area of Precision Health.

Precision Health is defined as a more evidence-based approach to decision making in regards to health maintenance and disease prevention. The spectrum of activities also includes early detection, treatment of disease and disease prognosis. This approach relies upon an increasing knowledge of variability in genes, environment, and lifestyle affecting risk factors, causes, and mechanisms of disease pathogenesis. Precision Health seeks to redefine our understanding of disease onset and progression, treatment response, and health outcomes through the more precise measurement of molecular, environmental, and behavioral factors that contribute to health and disease.

This program will officially launch in January, 2017.

## Objectives

- Promote the application of **genomics-derived solutions** to address key health sector challenges or opportunities facing Canadians
- Applicants must demonstrate how their proposal holds a high potential for attaining concrete deliverables by the end of the funding period

## Parameters

- Genome Canada will provide support for integrative large-scale projects, ranging in size from \$3 - \$10 million in total project budget
- Successful projects will be awarded funding for a term of up to four years
- Genome Canada will invest a minimum of 1/3 of the approved total project budget, with max TBD
- The remaining budget must be obtained through co-funding from other sources such as end-users, eligible grants etc.

## Project Eligibility

- An interdisciplinary team lead by an **Investigator** with active **End-user** collaborations including integrated **Genomics and Society Research**— see definitions below
- Projects must propose omics-based solutions with potential to contribute to a more evidence-based approach to health and their potential to improve healthcare and/or to enhance the cost-effectiveness of the health-care system
- Sharing of resources and expertise through inter-regional and international collaborations
- Respond to the objectives of LSARP 2017

## End-User Engagement

- All projects must clearly demonstrate end-user engagement in the development and execution of the research plan in order to help ensure receptor uptake of the research.
- Co-funding would clearly demonstrate end-user interest in the project's potential deliverables

## Investigator

- Defined as an independent investigator or clinician who is employed by a Canadian post-secondary organization, hospital, or research institute
- Researchers from not-for-profit organizations may be considered if the organization has an explicit research mandate

## End-User

- Includes health care authorities, companies, patient groups, government departments or agencies, or not-for-profits that have a credible plan for exploiting project results for the socio-economic benefit of Canada

## Genomics and Society

- Genomics, and its Ethical, Environmental, Economic, Legal and Societal aspects
- The overarching objective of integrated Genomics and Society research is to investigate the relevant factors affecting the advancement of the genomics research proposed from the perspective of the social sciences and humanities
- Stand-alone large scale Genomics and Society proposals are also eligible for funding

## Benefits to Canada

The LSARP will support projects that have clearly defined deliverables that will be subsequently translated into improved health care, clinical utility, and/or practical applicability within as short of a time-frame as possible, taking into consideration what is reasonable for the area of research.

Benefits could include, for example:

- Adoption of a new genomics-derived technology
- A change in clinical practice guidelines
- Using omics approaches as companion diagnostics
- A reduction in number of adverse drug reactions through pharmacogenomics
- Development of products with commercial potential
- Improvement in quality of life for patients and environment

## Application Process



Genome Canada expects to officially launch the competition in January 2017. In order to prepare Alberta investigators and put together competitive proposals, Genome Alberta will be hosting preparatory sessions with interested teams in December, 2016.

Please contact Genome Alberta for more information on the internal review process, supplementary information, and forms.

Genome Canada's official deadline for Registrations will be in March, 2017.

## Alberta Contact Information

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