

SECTOR INNOVATION PROGRAM Info Sheet - Intake 5

This document outlines details for the fifth intake of the Sector Innovation Program (SIP5): the focus of the intake, intake-specific parameters and eligibility criteria and the timelines. Note that this document is a supplement to the [Sector Innovation Program - Program Guidelines](#). Unless specified otherwise, the program parameters, eligibility and evaluation criteria indicated in the Program Guidelines apply.

I. INTAKE FOCUS

The focus of Intake 5 of the Sector Innovation Program is Pathogen Control, in particular, pathogens that can have a significant impact on food safety and human health in British Columbia.

Genome BC aims to fund at least one research project in each of the following groups of pathogens, to help track, monitor, manage and/or mitigate the effects: 1) *Salmonella* spp. (specifically *S. enteritidis* - SE); 2) Norovirus in oysters; 3) Other pathogens such as *Vibrio* spp., *Campylobacter jejuni*, *Listeria monocytogenes*, *Clostridium perfringens*, *Yersinia enterocolitica*, *Enterococcus* spp., and *Escherichia coli*.

Recent outbreaks, of SE and Norovirus in particular, have had a notable impact on human health and the economic wellbeing of the shellfish and agriculture industries¹.

Better pathogen control could be achieved through a 'One Health' systems approach that considers not just individual pathogens/systems, but also the interactions among them, their environments, the pathogen transmission pathway, factors that increase the prevalence and predominance of pathogens, and host-pathogen effects. Successful projects will present effective cross-sectoral approaches to identifying the source of the pathogen (e.g., norovirus), tracking of the pathogen through the system from origin to sink, monitoring for safety of the food product (e.g., oysters) as well as the duration of the pathogen in the system, and mitigating the impact of these pathogens specifically, involving the Fisheries and Aquaculture and/or Agri-food and Agriculture sectors.

Projects may include assessing environmental origins of pathogens, pathogen threshold levels, transmission pathways in food production, monitoring, detection of active and viable pathogens, prediction tools leading to development of early warning systems, diagnosis of infection, or epidemiology and public health. Expected outcomes and impacts may include: 'omics tools for detection and identification of active and viable pathogens, new products and services such as: tools for prediction or early warning, improved Standard Operating Protocols, industry processes that include routine monitoring, monitoring effectiveness of control processes, and regulatory processes for prevention of infestations, treatment, and pathogen control, containment, and/or eradication. Projects which focus on practical approaches to understanding these pathogens in the environment as well as early detection strategies that can be used by industry will be ranked higher than a theoretical approach to finding solutions for these problems.

Projects funded through this competition must include end-user engagement from entities capable of implementing or utilizing the deliverables of the project (e.g. the BC Centre for Disease Control (BCCDC), the Canadian Food Inspection Agency (CFIA), Public Health Agency of

¹ <http://www.bccdc.ca/health-info/food-your-health/fish-shellfish>;
<http://www.bccdc.ca/search?k=salmonella%20enteritidis>

Canada (PHAC), Ministry of Agriculture or relevant industries) to help ensure successful implementation and broad impact.

For SIP5, applicants must clearly specify how their research will use genomics to address pathogen detection and control for one or more of the pathogens of interest and must take a One Health approach. Contact sip@genomebc.ca with any questions.

A separate competition will be run shortly after this SIP intake to support research that will investigate and address the related legal/regulatory, ethical, economic, social and/or environmental issues (GE³LS²) relevant to the projects funded through this competition. Projects funded through this SIP will be expected to communicate with the GE³LS researchers supported through that competition. To facilitate the development of project ideas relevant to the SIP5 intake, Genome BC will share a list of the accepted SIP5 Statements of Interest (SOIs) through our website (www.genomebc.ca) including the Project Leader(s) names, the Lead institution, Project title and Keywords.

II. INTAKE-SPECIFIC PARAMETERS AND ELIGIBILITY

Thanks to support from Genome Canada through their Regional Priorities Partnerships Program (RP3), the funding envelope for this intake is \$1.6M: \$850K from Genome BC, \$250K from the Ministry of Agriculture and \$500K from Genome Canada. Note that the Ministry of Agriculture funds will only be directed towards projects that will address Norovirus outbreaks. Based on this partnership, the following intake-specific parameters and eligibility criteria will apply in addition to the SIP eligibility criteria listed in the SIP Program Guidelines. Note that these parameters and eligibility criteria will be taken into account to determine SOI eligibility:

- 1) Project budgets must be in the range of \$375K to \$500K,
- 2) Project terms must be between 12 and 24 months,
- 3) Project deliverables and solutions must be amenable to reduction-to-practice by end-users. This will require engagement of an entity capable of implementing or utilizing the deliverables of the project, i.e., the BC Centre for Disease Control (BCCDC), the Canadian Food Inspection Agency (CFIA), Public Health Agency of Canada (PHAC) or Ministry of Agriculture or other similar entity.

III. INTAKE TIMELINE

Date	Activity
September 2018	Launch of SIP-Intake 5 info sheet
October 15, 2018	Deadline for submitting Statements of Interest (SOI)
October 29, 2018	Applicants notified if their SOI is eligible for this intake
December 10, 2018	Deadline for submitting Applications
February 2019	Recommendations presented to Genome BC’s Board of Directors
Late March 2019	Applicants notified of results of their application
July 1, 2019	Anticipated start date for successful projects

² The acronym GE³LS stands for “Genomics and its Ethical, Environmental, Economic, Legal and Social aspects”. However, it should be understood broadly as research into the implications of genomics in society from the perspective of the social sciences and humanities. Therefore, it is not strictly limited to disciplines that make-up the acronym but rather encompasses all those that rely on quantitative and qualitative methodologies to investigate the implications of genomics in society, and inform applications, practices and policies. In the context of this RFA, it can also include approaches from a wide range of disciplines including but not limited to: development studies, environmental sciences, food studies, geography, innovation studies, political sciences and population studies.