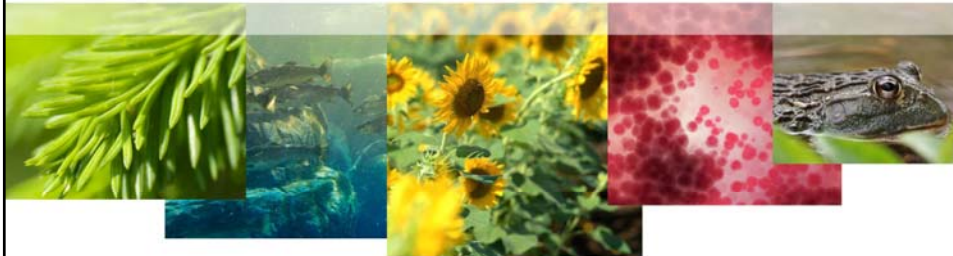
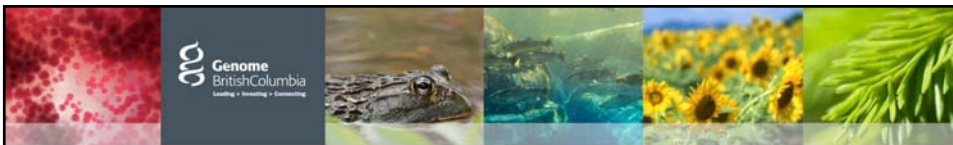


Genome BC: Current and Upcoming Opportunities



Simon Fraser University info session
23 January 2017



Agenda

- **Introduction to Genome Canada, “Genome Enterprise” and Genome BC**
- **Funding Programs**
 - *Genome Canada Large-Scale Applied Research Projects Competition – Genomics and Precision Health*
 - *Other Genome Canada and Genome BC programs*
 - Genome Canada Genomic Applications Partnership Program (GAPP)
 - Genome BC GeneSolve Program*
 - Genome BC Sector Innovation Program

** In development for launch Winter 2017*



Genome Canada

Background

- Genome Canada is a not-for-profit corporation created in February 2000
- Federal Government investment represents 33% of the funding (variable between programs) for research projects and technology innovation centres

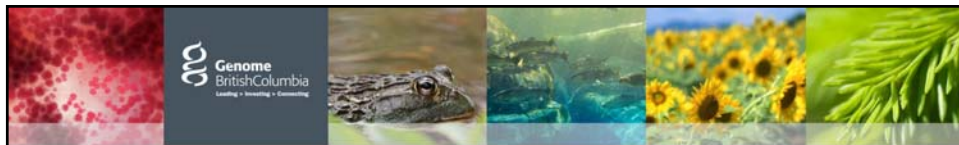
Vision

- To harness the transformative power of genomics to deliver benefits to Canadians

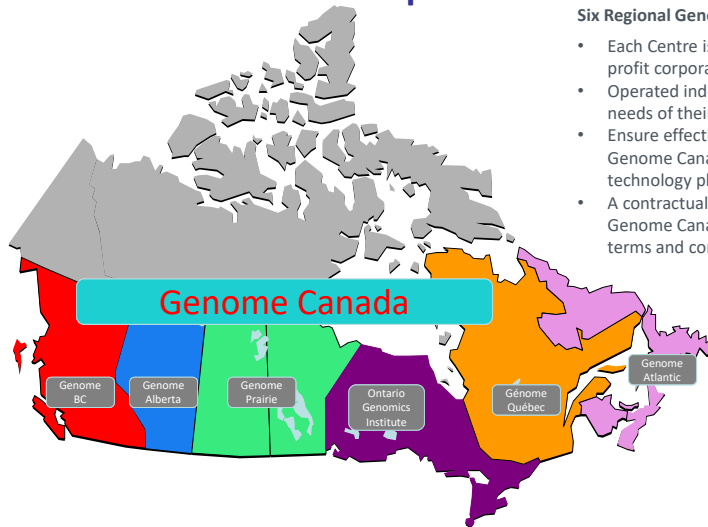
Mission

- Connecting ideas and people across public and private sectors to find new uses and applications for genomics
- Investing in large-scale science and technology to fuel innovation; and
- Translating discoveries into applications to maximize impact across all sectors

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Canadian Genomics Enterprise



Six Regional Genome Centres:

- Each Centre is established as a not-for-profit corporation
- Operated independently to meet the needs of their region
- Ensure effective management of Genome Canada funded projects technology platforms
- A contractual funding agreement with Genome Canada outlines specific terms and conditions

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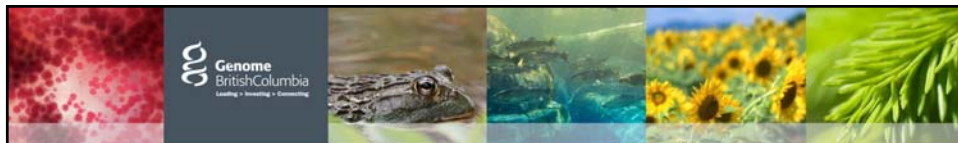


Genome British Columbia (Genome BC)

Background

- Genome BC invests in research, entrepreneurship and commercialization in life sciences to address challenges in key sectors such as:
 - Health
 - Forestry
 - Fisheries and aquaculture
 - Agri-food
 - Energy
 - Mining, and
 - Environment
- Over \$780M in total project funding secured since inception
- Supported by the province of BC (25% of funding) and balance raised through partners and competitive research funding

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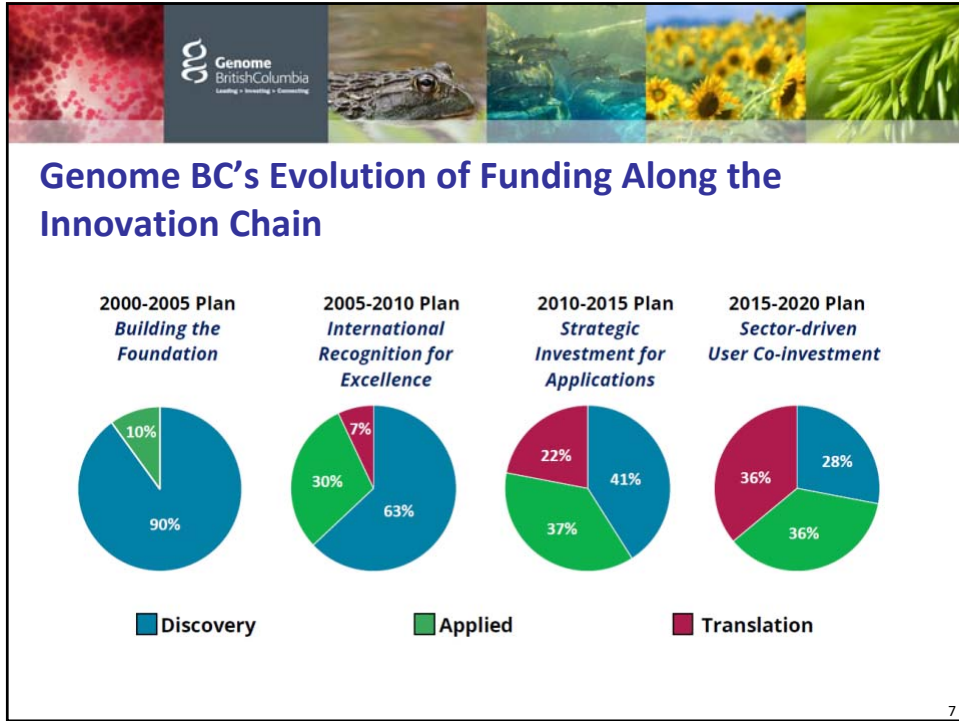
Genome British Columbia (Genome BC)

Genome BC's 2015-2020 Strategic Plan

- Enhance BC's recognition as a bioeconomy leader, attracting top talent and new investments;
- Support innovation and sustainability in BC's key socio-economic sectors through the translation of research;
- Promote and support world-class research;
- Develop a vibrant life sciences cluster; and
- Enhance recognition of the value of genomics, while addressing societal concerns.

Genome BC is grateful for the government's commitment to Genome BC's current strategic plan and initial two year investment of \$34M

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Large-Scale Applied Research Projects Competition (LSARP) – Genome Canada

Support applied research projects using genomic approaches to address challenges and opportunities of importance to a particular sector(s) to contribute to the well-being of Canadians

- New calls launched approximately every 18-24 months
- Applicants must demonstrate how their proposal holds a high potential for attaining **concrete deliverables by the end of the funding period** and therefore **translate into significant social and/or economic benefits** to BC and Canada in as short a time-frame as possible after the close of the project
- Next call expected to launch in January 2017, with a focus on Precision Health

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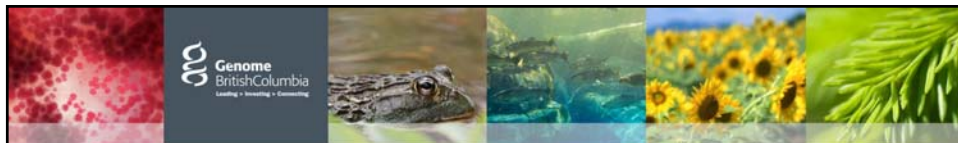


LSARP 2017: Genomics and Precision Health

Precision Health:

- In the context of this competition Precision Health can be seen as a more evidence based approach to decision making both with regards to health maintenance and disease prevention.
- Precision Health harnesses the power of genomic analysis in the realm of clinical application by making every individual's unique genetic makeup clinically relevant.
- Projects must demonstrate how genomics-based research can contribute to a more evidence-based approach to health and, thereby, improve health outcomes, and/or enhance the cost-effectiveness of the healthcare system.

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LSARP 2017: Genomics and Precision Health

Social and Economic Benefits:

- All applications must describe, with supporting evidence, the deliverable(s) that will be realized by the end of the project.
- Applicants must provide a rationale (including an economic component) explaining how the outcomes of the project will potentially contribute to a more evidence-based approach to health and, thereby, improve health outcomes, and/or enhance the cost-effectiveness of the healthcare system.
- Must include a plan for next steps for translation of the deliverables: transfer, dissemination, use, application
- Rapid sharing of the outputs of the research (e.g., publications, data and resources) is required

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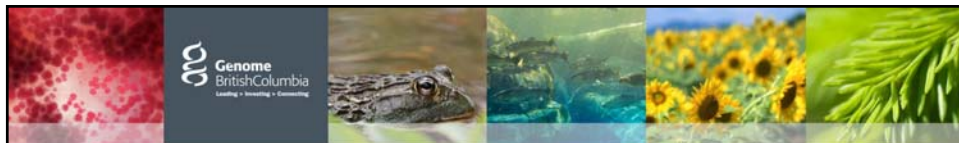


LSARP 2017: Genomics and Precision Health

End-User Engagement:

- “End-users”: those who are able to use the information generated through research to make informed decisions on issues, policies, programs and product development
- For example: publicly funded health-care delivery organizations, health technology assessment specialists, patient groups and companies (e.g., molecular diagnostic, pharmaceutical and/or biotech companies)
- End-users must be clearly integrated into the project team (e.g. team member, collaborator, member of management team)
- End-user co-funding support is recommended but not a requirement

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LSARP 2017: Genomics and Precision Health

GE³LS* research:

- GE³LS = “Genomics and its Ethical, Environmental, Economic, Legal and Social aspects”
Broadly it is genomics-related research activities and related activities undertaken from the perspective of the social sciences and humanities.
- Integrated GE³LS research: each project must include an integrated GE³LS research component that will advance knowledge and its translation
- Large-scale GE³LS research: projects that investigate in an innovative, comprehensive and inter-disciplinary manner pressing national and/or international factors affecting the advancement, adoption, evaluation and governance of genomics advances in health

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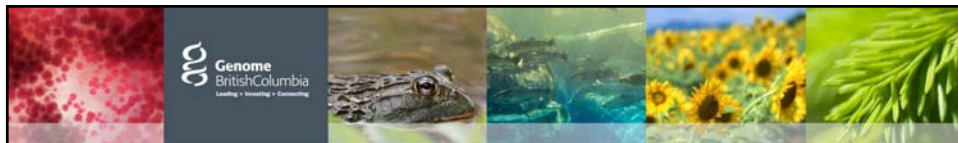
LSARP 2017: Genomics and Precision Health

Parameters*:

- Genome Canada to provide no more than 1/3 of the total budget
- Partnerships with other funding agencies may increase this contribution
- Total budgets in the range of \$2-10M
- Project terms of up to 4 years
- Projects must have high potential to attain concrete deliverables within a short time-frame
- Process: Registration, Pre-application, Full Application and face-to-face meeting with Genome Canada's review committee
- All proposals from BC researchers must come through Genome BC

***Note that the RFA is still in development and these details may change**

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New Programs to Enable “User-Pull”

Goal: to support research targeted toward the needs of sector “Users” (e.g. industry, government agencies, not-for-profits) and encourage collaborative research between “Users” and academia

“User Pull”: catalyzing transfer of innovation to Users

- User leads
- User investment
- User demonstrated resources, expertise and intention to put the plan into effect
- User actively engaged in the development of research objectives
- Expected to result in net benefit to BC and Canada

For example:

- **Genome Canada's Genomics Applications Partnership Program (GAPP)**
- **Genome BC's GeneSolve program (*in development*)**

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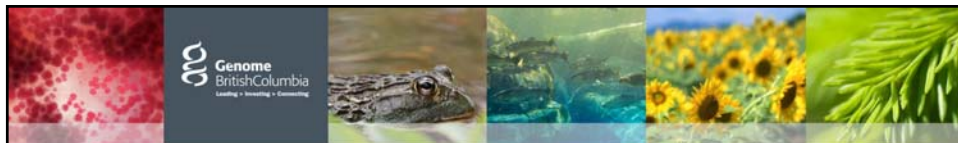


Genomic Applications Partnership Program (GAPP) – Genome Canada

Pull new technologies and the outputs of genomics research from academia into companies to address key challenges and realize new opportunities

- Projects must leverage Genome Canada funds at least 1:2 (at least 33% from user partner)
- Total budgets range from \$300K - \$6M
- Project terms range from 6 months – 3 years
- Process: Expression of Interest (EOI), pitch, supplementary proposal
- Next intake January 2017. Contact David Charest: dcharest@genomebc.ca

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GeneSolve – Genome BC (*in development*)

To support research directly targeted toward the needs of sector “Users” and encourage collaborative research between “Users” and academia

- Researchers invited to submit projects to address specific User challenges posted on a website
- Total budgets from \$200K - \$500K (may be higher dependent on co-funding)
- User partner to provide 50% of the total project budget in co-funding
- Genome BC to support projects up to 50% (max. \$250K per project)
- Project terms range from 12 to 24 months
- Launch planned for early 2017.

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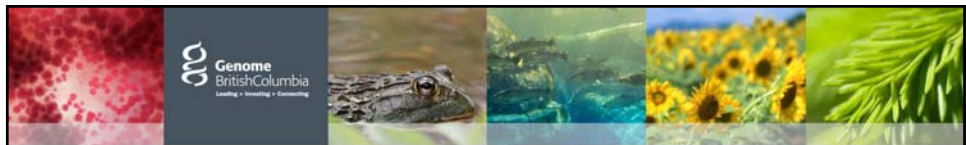


Sector Innovation Program – Genome BC

Aims to support genomic research which has the long-term potential to address the needs of key sectors in BC's economy and society

- Each intake will have a focus, such as particular sector(s) or a theme (e.g. climate change), and will only be open to projects which address the needs of that particular sector or sectors, or respond to that particular theme
- Project budgets must be between \$100,000 and \$250,000: the maximum allowable request from Genome BC is \$250,000
- Co-funding (matching funds) is not required for these projects
- Project terms must be between 12 and 18 months

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Sector Innovation Program – Genome BC

Focus	Non-health	Health	Non-health
Activity	Intake 1	Intake 2	Intake 3
Deadline for submitting Statements of Interest (SOI)	November 8, 2016	February 2, 2017	May 11, 2017
Applicants notified if their SOI is not eligible	November 15, 2016	February 16, 2017	May 25, 2017
Deadline for submitting Applications	December 15, 2016	March 16, 2017	June 22, 2017
Recommendations presented to Genome BC's Board for approval	February 24, 2017	June 2, 2017	September 29, 2017
Applicants notified of results to their application	Early March 2017	Early June 2017	Early October, 2017
Anticipated start date for successful projects	July 1, 2017	October 1, 2017	January 1, 2018

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For More Information:

- **Review Program Guidelines and information:**
<http://www.genomebc.ca/research-programs/opportunities/current-and-upcoming/>
- **Contact Alison Dendoff – Manager, New Programs**
adendoff@genomebc.ca

LSARP-Health:

Ágnes Baross – Manager, Sector Development abaross@genomebc.ca

Ivana Cecic – Manager, Sector Development icecic@genomebc.ca

GAPP:

David Charest – Director, Sector Development dcharest@genomebc.ca

Industry Innovation Fund:

Pat Brady – Director, Industry Innovation Programs pbrady@genomebc.ca