



Genome Québec



solutions are in the genes



GENOME CANADA 2015
COMPETITION
BIOINFORMATICS AND
COMPUTATIONAL BIOLOGY
REQUEST FOR APPLICATIONS

Scientific Affairs, Génome Québec

Our mission

In partnership with national and international leaders in life sciences, Génome Québec contributes to strengthening the competitiveness of the genomics innovation system in order to maximize its socioeconomic impact in Québec, by funding major genomic research initiatives and putting in place the tools necessary for scientific and strategic development in the field.

The funds invested by Génome Québec are provided by the Québec Ministry of Economy, Innovation and Export Trade (MEIE), the Government of Canada through Genome Canada and private partners.

Our vision

Making Genomics work for Citizens and Society.



ROLE OF GÉNOME QUÉBEC

Génomique Québec is part of 6 genomics centers in Canada that support genomics research in their respective region

For a Genome Canada competition, Génomique Québec :

- Help candidates to prepare competitive applications
- Facilitate the access to nodes of the genomics innovation network and other service providers
- Once approved, Génomique Québec does project management



Ensure the competitiveness of Quebec researchers

2015 COMPETITION: BIOINFORMATICS AND COMPUTATIONAL BIOLOGY



BACKGROUND

OBJECTIVES:

- Support the **development of next generation Bioinformatics and Computational Biology tools and methodologies** that will be required by the research community to deal with the influx of **large amounts of data** produced by modern genomics technologies; and,
- **Provide broad and timely access** of these new Bioinformatics and Computational Biology tools to the research community.
- Help the Canadian research community in maximizing the impact of data generated by new and future « omics » technologies
- Proposals with applications across all of Genome Canada's sectors are welcome:
 - Human health
 - Forestry
 - Agriculture
 - Environment
 - Aquaculture/fisheries
 - Mining
 - Energy



FUNDING AVAILABLE AND TERM

Genome Canada and CIHR funding available for this competition	4,000,000\$
Co-funding	Not required
Investment per project	125,000* - 250,000 \$
Term of the project	Two years

* Projects requiring less than \$125,000 will not be considered unless well justified



COMPETITION TIMELINE

Dates	Activity
October 29, 2015	Launch of Request for Applications (RFA)
December 4, 2015	Registrations due at Génome Québec
December 11, 2015	Due date for registrations at Genome Canada
December 18, 2015	Review of eligibility of registrations by Genome Canada completed
February 5, 2016	Full Applications due at Génome Québec
	Friendly peer review at Génome Québec
March 4, 2016	Deadline for Full Applications at Genome Canada
Early May 2016	Review process completed
End of June 2016	Notification of Decision



SUBMISSION OF APPLICATIONS

REGISTRATION DUE AT GÉNOME QUÉBEC ON DECEMBER 4th

- Mandatory
- Identification of applicants
- Identification of research area and keywords
- Estimated total budget
- Provide a brief description of the proposed project, expected deliverables and potential benefits (1/2 page)
- Clearly demonstrate how the research is aligned with the areas identified in the RFA
- Suggest reviewers
- Genome Canada can make a first selection based on the eligibility criteria



REGISTRATION

Submit by email on December 4th to
cmartens@genomequebec.com

Between December 4 to 11: review of eligibility by Génome Québec

December 11: Submission of registration to Genome Canada by Génome Québec

Between December 11 to 18: review of eligibility by Genome Canada



ELIGIBILITY OF PROPOSALS

Proposal must respond to the objectives of the competition:

- The development of next generation Bioinformatics and Computational Biology tools and methodologies that will be required by the research community to deal with the influx of large amounts of data produced by modern genomics technologies; and,
- Provide broad and timely access of these new Bioinformatics and Computational Biology tools to the research community



Are the essential components and outcomes of the proposed project sufficiently targeted to the requirements of the genomics research community?

TYPES OF PROPOSALS BEING SOUGHT

- This competition provides an opportunity for individuals or small groups to propose innovative ideas with the potential for significant impact that will disrupt current practices in the B/CB community and to stimulate the B/CB community to address real world challenges and currently recognized needs in the field.
- Applications should also encourage the involvement of researchers from a variety of other disciplines including, but not limited to, biology, statistics and mathematics.
- All applications are expected to propose new approaches to data analysis and data interpretation in the area of genomics, including development of software tools and algorithms.
- Of particular interest will be proposals addressing problems associated with current data handling and analysis and proposals addressing challenges arising from handling and analysis of data emerging from new technologies.
- Such tools and methods, in the long term, are expected to underpin Canada's national [B/CB strategy](#) and will help the Canadian research community in maximizing the impact of data generated by new and future “omics” technologies.
- Sharing of resources and expertise through inter-regional or international collaboration is encouraged at all levels.



FULL APPLICATIONS

REQUIRED DOCUMENTS

- Full application
 - Summary
 - Description of the research project
 - Benefits for the Canada
 - Management and finance
 - Financial information
- Detailed budget
- Budget supporting documentation
- Letters of support
- List of publications
- Data sharing policies
- List of resume



FULL APPLICATIONS

Submit by email on **February 5th, 2016** to cmartens@genomequebec.com

Between February 5th – 19th 2016: due diligence review

- Friendly peer review
- Administrative review
- Financial review

February 19th, 2016: return of comments to principal investigators

February 26th, 2016: Submission of **signed** final applications to Génome Québec

Between February 26th – March 2nd: Final administrative review

March 3rd 2016: Génome Québec CEO signature on the applications

March 4th 2016: Submission of the full applications to Genome Canada by Génome Québec

June 2016: Genome Canada's final decision



EVALUATION CRITERIA

The research proposal:

- To what extent will the proposal support transformative ideas with the potential to disrupt current practices within the B/CB community?
- To what extent does the proposed research reflect creative, original thinking?
- To what extent will the proposed tools or methodologies increase the productivity of genomics research?
- How appropriate are the methods and approaches in terms of the research objectives?
- How appropriate is the expertise of the applicant(s) in terms of realizing the research goals?



EVALUATION CRITERIA

Benefits:

- To what extent have the applicants identified appropriate deliverables in terms of their potential to have practical applicability to the genomics research community?
- What is the probability that the deliverables will be realized by the end of the funding period?
- How significant are the anticipated benefits described in the proposal to the genomics community?
- What is the probability that the benefits will be realized within a short time-frame after the end of the project?
- How appropriate is the plan for access to, and dissemination of, the tools and methodologies developed?
- How high is the potential for community impact and/or uptake, regardless of the type of dissemination plan proposed?



EVALUATION CRITERIA

Management and finance:

- How good is the management plan, including accountabilities of personnel and processes for decision-making on research?
- How realistic is the project schedule?
- How reasonable is the proposed budget in terms of the anticipated level of effort and deliverables?
- To what extent does the proposal provide assurance that expenditures from a funded project would be closely and critically monitored?



EVALUATION PROCESS

An international committee of experts having a wide range of relevant field which are known for their ability to innovate and/or expertise in bioinformatics and computational biology, will review applications based on evaluation criteria.



MISCELLANEOUS

- Ineligible costs for this competition are
 - Salaries, benefits and associated costs for the performance of wet lab work
 - Costs for high performance computing infrastructure
 - Costs for a project manager
- Integrated GE³LS is not required
- Research Oversight Committee is not required
- Over-heads are not eligible
- For eligible expenses please consult Genome Canada's guidelines: <http://www.genomecanada.ca/medias/PDF/en/guidelines-funding-research-projects-june-2014.pdf>
- In addition, in order to receive funds from CIHR, their guidelines must also be followed. See the [CIHR Funding Opportunity](#) for a complete listing of all CIHR guidelines and policies.



ROLE OF SCIENTIFIC AFFAIRS

- Financial review
- Administrative review
- Support with all steps of the process
- Support with the budget
- Friendly peer review
- Contact with other genome centres across Canada





GenomeQuébec



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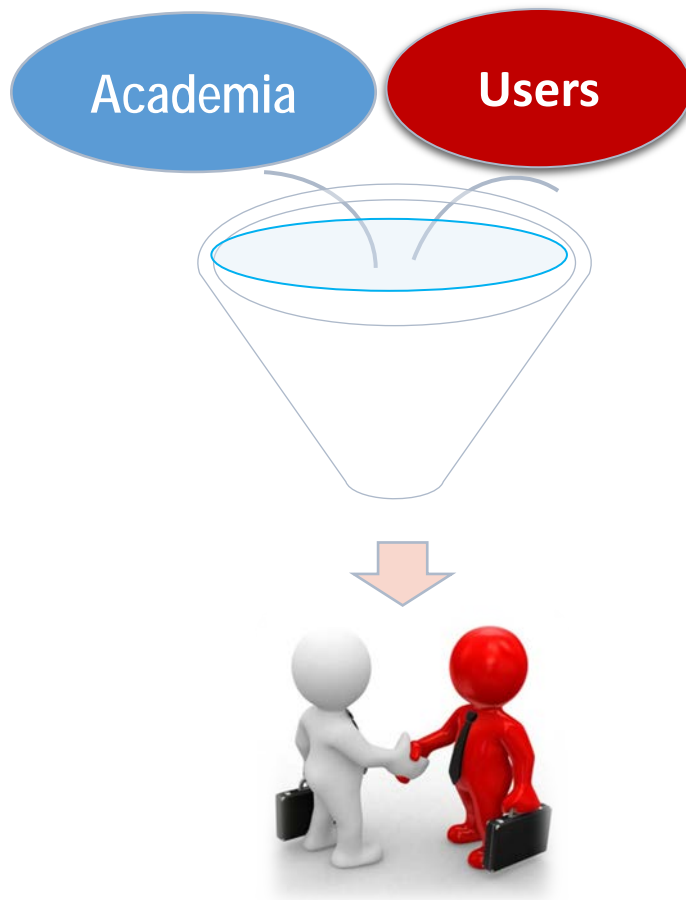
GenomeCanada



GENOMIC APPLICATIONS PARTNERSHIP PROGRAM (GAPP)

Diane Bouchard, Génome Québec

PROGRAM OBJECTIVES



- ▶ Promote the application of genomics derived solutions to **address key sector challenges or opportunities**
- ▶ Enable the transfer of **genomics-driven solutions** from academia to users
- ▶ Increase the **socioeconomic value** of genomics research
- ▶ Foster **productive interface** between end-users and academic research



GenomeQuébec

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Making **Genomics** Work for Citizens and Society