

Big data: Québec stands out in genomics in the fields of bioinformatics and computational biology

Montréal, September 13, 2016 — Génome Québec would like to commend the Québec research teams for their performance in the 2015 Bioinformatics and Computational Biology Competition (B/CB) launched by Genome Canada in partnership with the Canadian Institutes of Health Research (CIHR). In all, four projects were awarded \$1 million in funding, representing one-quarter of the total federal envelope.

Congratulations to the following researchers and their teams: François Major (Université de Montréal) and Thomas Duchaine (McGill University), Jesse Shapiro (Université de Montréal) and Luis Barreiro (CHU Sainte-Justine), and the team headed by Jérôme Waldispühl (McGill University) who will undertake two projects, one with Nicolas Moitessier (McGill University) and another with Olivier Tremblay-Savard (University of Manitoba).

Genome Canada's Bioinformatics and Computational Biology competition supports multidisciplinary teams in the development of new tools, software and networks accessible and open to the research community. The massive amount of data generated by genomics is not only changing, but revolutionizing current practices in many areas, including human health, agrifood, forestry and the environment. The lack of B/CB tools and methods to analyze this huge collection of data and maximize the full potential of genomics research is a major obstacle facing researchers.

The results announced today confirm Québec's standing as a leader in research and innovation in the era of *big data*. "By strengthening its critical mass and stimulating innovations through data management and analysis, Québec is giving itself the tools it needs to become a hub of digital entrepreneurship in niches, such as genomics, which offer strong economic potential," said Daniel Coderre, President and CEO of Génome Québec.

The four projects from Québec are:

- ▶ [Computation of cell-specific microRNA::mRNA regulatory networks enables the design of efficient RNAi-based therapeutics](#)
 - Project leaders: François Major (Université de Montréal) and Thomas Duchaine (McGill University)
 - Total funding: \$250,000
- ▶ [A toolkit for genome-wide association studies in bacteria](#)
 - Project leaders: Jesse Shapiro (Université de Montréal) and Luis Barreiro (CHU Sainte-Justine)
 - Total funding: \$250,000
- ▶ [Crowdsourcing Genomic Databases](#)
 - Project leaders: Jérôme Waldispühl (McGill University) and Olivier Tremblay-Savard (University of Manitoba)
 - Total funding: \$250,000
- ▶ [Computational methods and databases to identify small RNA-binding molecules regulating gene expression](#)
 - Project leaders: Jérôme Waldispühl and Nicolas Moitessier (McGill University)
 - Total funding: \$250,000

About Génome Québec

In partnership with national and international stakeholders in life sciences, Génome Québec promotes the competitiveness of the genomics innovation system in order to maximize its social and economic benefits for Québec. It does so by funding large-scale research initiatives in genomics and implementing the tools required for the scientific and strategic development of the sector.

The funds invested by Génome Québec are provided by the Ministère de l'Économie, de la Science et de l'Innovation du Québec (MESI), the Government of Canada, through Genome Canada, and private partners. For more information, visit www.genomequebec.com.

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