

**OVER \$4.5 MILLION FOR GENOMIC SOLUTIONS TO COUNTER
ANTIMICROBIAL RESISTANCE AND PREPARE FOR FUTURE PANDEMICS**

Montréal, November 20, 2023 — Génome Québec is proud to announce the six research teams that have won major funding under the Genomic Solutions for the Identification, Characterization and Monitoring of Antimicrobial Resistance and Emerging Pathogens program. The total investment, including that of public and private partners, represents over \$4.5 million, and will support the development of tools to prepare for future pandemics and counter the threat of antimicrobial resistance.

The response of countries in the early days of the pandemic had a major impact on the health and well-being of citizens, and major social and economic repercussions. The risk of epidemics caused by emerging pathogens is only set to increase. However, the knowledge acquired in recent years in the field of genomic surveillance will enable us to be better prepared for future pandemics. The research projects under this program not only address these concerns, but also help us to act proactively in the face of these imminent challenges.

"Funding such projects is a way to contribute to the creation of innovative solutions in response to the current epidemiological and public health risks in Québec. Genomics can indeed play a central role in understanding and countering antimicrobial resistance and emerging pathogens, notably through the development and creation of diagnostic tools and prevention measures, the development of surveillance capacity and the discovery of new treatments", says Stéphanie Lord-Fontaine, Vice-President, Scientific Affairs at Génome Québec.

Congratulations to the recipients

- Abdoulaye Baniré Diallo from Université du Québec à Montréal and Soren Gantt from the Centre hospitalier universitaire Saint-Justine - [Development and application of new machine learning tools to tackle current and future viral pandemics](#)
- Arnaud Droit from Université Laval et Jennifer Geddes-McAlister from University of Guelph - [MICROB-AI-R+, a new proteomics and AI-based technology for the detection of resistant pathogens in Urinary Tract Infections](#)
- Dominic Frigon and Paul J. Thomassin from McGill University - [One Health Integrated Assessment Modeling of AMR by Incorporating Metagenomics into Surveillance](#)
- Louis-Patrick Haraoui from Université de Sherbrooke - [Innovative solutions to identify in the environment the precursors of antibiotic resistance in bacteria](#)
- Roger C. Lévesque from Université Laval and Judith Fafard from the Laboratoire de santé publique du Québec, Institut national de santé publique du Québec - [MicroPaint: Rapid, real-time analysis of bacterial pathogens causing infections and resistant to antibiotics](#)
- Jacques P. Tremblay from Université Laval - [Development of a CRISPR-powered instrument for specific, rapid and simple detection of emerging respiratory pathogens](#)

What is the Genomic Solutions for the Identification, Characterization and Surveillance of Antimicrobial Resistance and Emerging Pathogens program?

This funding opportunity aims to bring together researchers and stakeholders from different disciplines and sectors to develop innovative genomics solutions that will support:

- Investigation of infections of unknown etiology
- Identification and characterization of emerging pathogens and antimicrobial resistance (AMR)
- Investigation of zoonotic diseases, including surveillance of animal reservoirs
- Surveillance of pathogens (virus, bacteria, fungi, and parasites) and AMR propagation

Among other things, this program consists of financing projects with a total budget between \$300,000 and \$800,000 with the contribution of Génome Québec for each approved project ranging from \$150,000 to \$400,000.

About Génome Québec

Génome Québec's mission is to catalyze the development and excellence of genomics research and promote its integration and democratization. It is a pillar of the Québec bioeconomy and contributes to Québec's influence and its social and sustainable development. The funds invested by Génome Québec are provided by the ministère de l'Économie, de l'Innovation et de l'Énergie du Québec (MEIE), the government of Canada, through Genome Canada, and private partners. To learn more, visit www.genomequebec.com.

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