

## Genome Prairie and Fusion Genomics Partnering on Genome360 Platform Initiative

March 05, 2018

Genome Prairie announced that they are partnering with the Vancouver-based Fusion Genomics Corporation ([www.fusiongenomics.com](http://www.fusiongenomics.com)) using Fusion Genomics' ONETest™ platform, including FusionCloud™ analytics, to move forward on Genome Prairie's Genome360 Initiative, as recently announced in Winnipeg on January 8, 2018 by His Honourable Navdeep Bains.

The Genome360 Initiative, based in Manitoba, will build a physical capacity in the form of a centralised analytical and satellite mobile genomics teaching laboratory incorporating, showcasing and demonstrating the latest in biomaterials / clean technology. The central capacity will be used to link organizations with a focus on the development of novel genomics and other biosciences-based solutions and will bring the federal and provincial governments' priorities for clean technology and indigenous economic development together with state of the art genomics science. Within this structure, Genome360's goals are to develop targeted, effective, inclusive and socially responsible projects to take advantage of the immense opportunities in Canada in the clean technology space, with a special emphasis on the partnership, protection and participation of aboriginal communities.

"Manitoba is at the heart of a region that is perfectly positioned to build a strong infrastructure for research and discovery in clean technologies," says Dr. Simon Potter, Director of Manitoba at Genome Prairie. "We are proud to partner with Fusion Genomics to build the Genome360 program and create an innovative platform to advance genomics tools used for commercialization opportunities in clean technology and contribute to the bioeconomy."

It will also ensure that Manitoba – including its remote and rural areas – has access to a genomics support platform to take maximum advantage of national programs, including Genome Canada, that will deliver long-term health and economic benefits to the province. Because the ONETest™ Platform, developed by Fusion Genomics Corp., represents a significant advance in the state of the art for surveillance of animal and plant pathogens and can also assay microbiomes of plants, animals and soil, Genome Prairie asked Fusion Genomics to partner with them in their Genome360 Initiative. "With a quickly growing global population, potential outbreaks of infectious diseases pose an increasingly pressing threat to our public health", said Dr. Mohammad Qadir, CEO of Fusion Genomics.

Fusion's ONETest™ Platform can capture genomes of all known pathogens and comprises 3 components; patent pending and proprietary QUANTUMProbes™, the UNIPrep™ kit and the FUSIONCloud™ genomic analysis technologies. QUANTUMProbes™ are synthetic oligo-nucleotides designed to capture hyper-variable genomic regions and also have the ability to capture genomes which have mutated up to 20% genetic distance from the reference. This allows the ONETest™ to overcome failures commonly associated with today's current molecular diagnostics. The genomic data is analyzed using the FUSIONCloud™ database and analytic suite which is housed on IBM's cloud and provides virtually unlimited capacity, privacy and security. In a November 16, 2017 press release, Allen Lalonde, IBM Canada's senior innovation executive with the IBM Canada Research & Development Centre said, "Together with Fusion Genomics, IBM continues its commitment to drive innovation in Canada that is making a real difference in key industries. IBM Cloud is designed to help meet the evolving needs of all

scopes of businesses and technology challenges and can deliver a security minded end-to-end system that provides an environment, data governance, auditability, and interfaces for health data standards and systems.” “We chose IBM over other cloud providers because of its ability to quickly scale up or down while ensuring that sensitive data is protected with one of the most secure clouds available. This accelerates our capacity to react to infectious diseases that can pose dangerous threats to both the economy and human life.” said Fusion’s Dr. Qadir.

Because the ONETest™ Platform represents a significant advance in the state of the art for surveillance of animal and plant pathogens and can also assay microbiomes of plants, animals and soil, Genome Prairie asked Fusion Genomics to partner with them in their Genome360 Initiative. “With laboratory access, education and training, industrial partners will benefit from transformative knowledge that will aid in creating sophisticated agricultural and manufacturing practices centered in clean technologies,” says Dr. Reno Pontarollo, President and CEO at Genome Prairie. “As industries take advantage of the Genome360 program it will allow Canada to build on its existing world-class agricultural and industrial base.”

This project is also made possible in part due to support provided by SFU’s Venture Labs who will help to commercialize opportunities that arise and will help to mentor any start-ups that emerge from the initiative.

### **About Genome Prairie**

Genome Prairie, a non-profit organization, with offices in Winnipeg and Saskatoon, aligns partners and resources to develop and manage genomics and bioscience research projects addressing key regional priorities including agriculture, human health, the environment, energy and mining. These efforts are playing a central role in building the region’s reputation as a location of choice for innovation and commercialization.

### **About Fusion Genomics**

Fusion Genomics in Vancouver BC, is developing advanced molecular diagnostics tests for pathogens using their proprietary platform technologies in combination with Next Generation Sequencing. Fusion Genomics has developed disruptive DNA and RNA technology that can positively identify infectious diseases and enhance the surveillance of emerging pathogens like MERS, SARS, avian flu, and swine flu.

Fusion’s ONETest™, in combination with FUSIONCloud™ their data analysis platform, is designed to identify accurately, rapidly and economically, the genetic signatures of all known pathogens and beneficial microbiota. Fusion Genomics ONETest™ is also being evaluated by key opinion leaders in Canada and the European Union.