



Ontario Genomics



For years, Ontarians have been hearing about our crumbling health care system but there are many silver linings to the cloudy situation our hospitals are dealing with.

One of them is the groundbreaking work Dr. Bekim Sadikovic at Lawson Health Research Institute and London Health Sciences Centre has been doing with biotech company, Illumina. In their quest to better detect rare diseases, Dr. Sadikovic has created the clinically validated EpiSign™ test, which uses machine-learning algorithms and compiles them into the EpiSign™ Knowledge Database.



1 in 15

Canadian children born with a rare disease



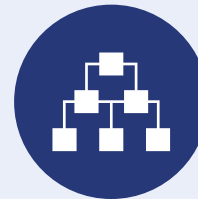
4,000

Rare genetic diseases



1 in 4

Pediatric hospital beds is occupied by a child with a rare disease



EKD

EpiSign™ Knowledge Database
The world's largest rare disorder DNA methylation database

**HEALTHY PEOPLE, HEALTHY ECONOMY,
HEALTHY PLANET THROUGH GENOMICS INNOVATION**

www.ontariogenomics.ca





Thanks to funding from Ontario Genomics, Genome Canada and their Genomic Applications Partnership Program (GAPP), the EpiSign™ project is helping doctors cut down on long and agonizing diagnosis wait times by efficiently bringing answers and treatment options to more of the 1 in 15 Canadian children born with a rare disease.

Not only does this mean peace of mind and quicker access to the right support for those children, it's critical relief to our health care system by speeding up the diagnosis process and easing the pressure on hospitals since 1 in 4 pediatric hospital beds are occupied by a child with a rare disease.

This incredible work has been an evolution. After all, projects like these don't happen overnight! It takes many years of collaboration and many rounds of funding. When Dr. Sadikovic's team applied for their first round of GAPP funding in 2019, they were able to detect 19 different disorders across 30 genes. Five years later, the

most recent version of EpiSign™ has 116 different indicators covering 126 disorders. This number will only continue to grow in the years to come and while this much needed innovation was created here in Ontario, it'll be a benefit to the rest of the world.



Dr. Bekim Sadikovic at Lawson Health Research Institute and London Health Sciences Centre

