



Data you can depend on:  
Canada's first  
Revio PacBio  
Certified Service  
Provider



**PACBIO CERTIFIED  
SERVICE PROVIDER**

# Accelerate your *research.*



Genomics &  
Transcriptomics



Bioinformatics



Machine  
Learning & AI



Proteomics &  
Metabolomics



Precision  
Fermentation



Plant Growth  
& Phenotyping



Strain Engineering &  
DNA Assembly



**GIFS**

GLOBAL INSTITUTE  
FOR FOOD SECURITY

# Accelerate your research with leading-edge technological services.

## Genomics & Transcriptomics

- PacBio Revio HiFi long-read sequencing
- Element AVITI next generation sequencing (NGS)
- Illumina NovaSeq X Plus next generation sequencing (NGS)

### Applications

- Genotyping by targeted sequencing
- WGS, including Skim-seq genotyping
- RNA-Seq
- Kinnex full-length RNA sequencing
- LongPlex multiplexing for PacBio
- Shotgun metagenomics
- Hi-C sequencing



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## Proteomics & Metabolomics

- Advanced metabolic profiling of biological systems
- High-throughput analysis of proteins & pathways

### Applications

- Pathway discovery
- Functional validation of engineered systems
- Environmental & Biological product analysis

## Bioinformatics

- Genome assembly & annotation
- Variant calling
- Differential gene expression analysis
- Metagenomic analysis

## Precision Fermentation

- Microbial phenotyping
- Microbial culturing & fermentation (microlitre to multi-litre scale)

### Applications

- Bioprocess method development & optimization across parameters

## Machine Learning & AI

- Customized data visualization tools
- Genomic selection modelling

### Applications

- Predictive modeling for breeding programs through AI-enabled discovery

## Strain Engineering & DNA Assembly

- Protein design & engineering
- Combinatorial DNA assembly
- Microbial strain engineering

### Applications

- Rapid engineering of genetic variants & industrial use-strains
- Accelerated discovery & validation of biological parts & pathways for diverse end-use markets

## Plant Growth & Phenotyping

- Greenhouse & growth chamber facilities
- Plant transformation
- Imaging & phenotyping technologies
- Plant pathology expertise
- Seed increase & cleaning



Contact us for free consultation.



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