



GIFS

GLOBAL INSTITUTE
FOR FOOD SECURITY



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
& Transformation**

Discover, develop, and *deliver* with GIFS

Scale and accelerate your research with leading-edge **technological services** from the Global Institute for Food Security (GIFS) at the University of Saskatchewan.

Sequencing

- PacBio **Revio** HiFi long read
- Longplex multiplexing for PacBio
- Element **AVITI** short read
- **Illumina** short read
- Genotyping by targeted sequencing
- Skim-seq genotyping
- RNA-Seq
- Kinnex full-length RNA
- Iso-Seq
- Shotgun metagenomics
- Targeted panel
- Hi-C (chromosomal conformation capture)



Plant Growth, Transformation, & Technologies

- Greenhouse space
- Growth chamber space
- Plant transformation
- Imaging capabilities
- Plant pathology
- Seed increase & cleaning
- Expertise & high-quality care from seed to harvest
- Double haploid production

Bioinformatics

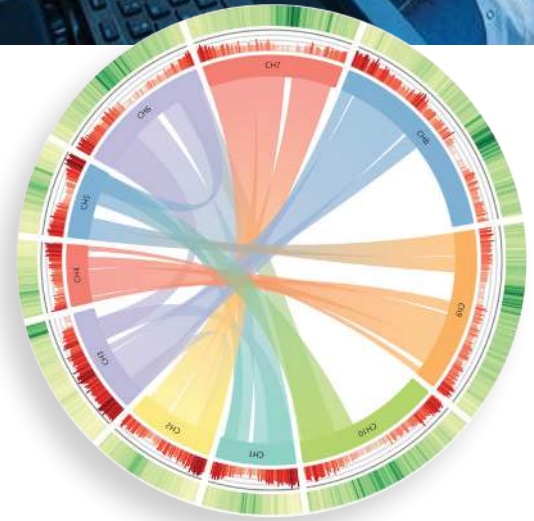
- Genome assembly
- Genome annotation
- Variant calling
- Differential expression
- Microbial community classification

Data Management & Analytics

- Customized data visualization tools
- Genomic selection modelling
- Machine learning & artificial intelligence
- Software licensing
- Full-stack software development

Engineering Biology

- Combinatorial DNA assembly
- Microbial strain engineering
- Protein engineering
- Microbial phenotyping (microlitre to multi-litre benchtop scale)
- Microbial culturing & fermentation
- Metabolomics & proteomics
- Lab automation consulting



Contact us for **free consultation.**



Email partnerwithus@gifs.ca.