

# Clinical Genomics Centre (CGC)

CGC offers cost-effective, high throughput genotyping & sequencing services. The facility is led by [Dr. Katherine Siminovitch](#).



**Service Department(s):** Research Communications

---

## Overview

- Full service genomics technology provider - provides a broad range of services from upstream study design and grant writing support through to downstream data analysis
  - All scales of genomic analyses, from a few SNPs in a few samples to millions of SNPs in thousands of samples
  - Instrumentation includes: Illumina HiSeq2500, MiSeq and iScan; Affymetrix GeneChip and GeneTitan Systems; Sequenom MassARRAY; ABI PRISM® 7900HT; and Applied Biosystems 3730xl and 3130xl DNA Analyzers
- 

## Unique Capacities

- With its comprehensive technology portfolio and exceptional diversity in each technology platform, the CGC enables optimal capacity, economy, efficiency, flexibility and agility
  - Fully automated sample handling and processing is performed by advanced robotics where applicable
  - Cost-effective high throughput polymorphism identification and genotyping. Extensive expertise in various aspects of sequencing, genotyping, and statistics and bioinformatics analyses
  - Fast turnaround time
- 

## Services

### Next generation sequencing (NGS)

- Sequencing and Resequencing – from targeted regions to whole genomes
- ChIP-Sequencing (ChIP-Seq)
- Whole Transcriptome Analysis (RNA-Seq)
- Small RNA Discovery and Analysis

### Multiplex SNP Genotyping

- Custom designed multiplex SNP assays to reduce costs and genotype up to 40 SNPs/reaction
- Ideally suited for fine mapping & Genome Wide Association Studies (GWAS) follow-up, which allows array-based analysis of up to 4.5 million markers

### **DNA Methylation Analysis**

- Automatic discovery and quantitation of multiple methylated CpG positions
- Cost effective for small and large numbers of samples, with a few or numerous amplicons per sample

### **Conventional Sanger Sequencing**

- From single tube to high-throughput plate format

### **DNA/RNA sample purification from blood/saliva/swab samples**

### **Establishment of transformed cell lines from blood lymphocytes**

---

### **Using the Facility**

- Facility accessible to all the academic and industrial users
- No selection process
- Fee for service

### **Sample Preparation**

For more information visit: <http://clinicalgenomics.ca>.

---

### **Quick Links**

- [Webpage](http://clinicalgenomics.ca)

---

### **Contacts**

#### **[Dr. Aaron Goldman](#)**

Director of Genomics Services

416-586-4800 (ext 7654)

[www.clinicalgenomics.ca](http://www.clinicalgenomics.ca)