



Khalil Bouyakdan
Core Facility Manager

The small animal phenotyping and imaging core facility offers a range of services unique in Canada for the study of carbohydrate and energy metabolism in rodents.

We perform routine tolerance tests (glucose, lipids, pyruvate, insulin) and indirect calorimetry in metabolic cages, as well as several imaging and telemetry services in rodents (temperature, blood pressure).

The core facility also has exceptional expertise in performing hyperglycemic and hyperinsulinemic clamps, which are more informative than tolerance tests.

SERVICES

ISOLATION OF PANCREATIC ISLETS

SURGICAL SERVICES

IN VIVO GLUCOSE HOMEOSTASIS

- Glucose tolerance test
- Insulin tolerance test
- Insulin secretion in hyperglycemic clamp
- Insulin sensitivity in euglycemic hyperinsulinemic clamp

IN VIVO ENERGY METABOLISM

- Metabolic cages
- Blood biochemistry
- Experimental models

TELEMETRY

IMAGING

- Fluorescence in vivo
- MicroCT
- Body composition

RESEARCH IN ACTION

Our core facility employs best practices and gold-standard methods for animal phenotyping. In diabetes research, the quality of our expertise and support for scientific teams is reflected in the guidelines for metabolic phenotyping in mice published in 2022 in the journal *Diabetologia* by CRCHUM researchers Thierry Alquier and Dr. Vincent Poitout.

HIGHLIGHTS

Our team is made up of phenotyping specialists with over 25 years' combined experience in surgery and imaging.

Since 2009, our core facility has:

 offered over **20 services** to the scientific community

 supported more than **30 teams**

 contributed to more than **70 publications**

