

# Metabolic Regulation Core

Metabolic Pathophysiology Core

Keywords: [pathophysiology](#) [in vivo](#) [metabolic](#) [Core](#) [imaging](#) [training](#)

Expand

843 Light Hall

Director: [Owen McGuinness, Ph.D.](#)



Managing Director and Core Contact: [Louise Lantier, Ph.D.](#)



The number of genetically altered mice with relevance or potential relevance to metabolic disease continues to grow. The techniques necessary to study the impact of genetic (or pharmacologic) manipulations on metabolic and endocrine processes are difficult and specialized. Performing well-controlled metabolism experiments in mice is difficult due to their small size. This is particularly true if the goal is to study conscious mice free of stress. The Aims of the MPC are to serve the needs of the scientific community by:

- Providing state-of-the-art services to assess the regulation of metabolic flux *in vivo* using a variety of glucose clamp and exercise protocols.
- Determining the components of energy balance with high precision and time resolution.
- Providing robust imaging technology to monitor the dynamics of cellular process.
- Training investigators in approaches to study metabolism in conscious unstressed mice.
- Providing innovative mouse bariatric surgery models with application to basic and translational research.
- Responding to the needs of the scientific community through development of new procedures.

Subcore **Metabolic Regulation: *In vivo***

*Light Hall Room 843*

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## Services

[Cost for Services - Vanderbilt Investigator-Initiated Services](#)

[Cost for Services - Non-Vanderbilt \(USA\) Academic Investigator-Initiated Services](#)

\*\*\*\*\*[Energy Balance Core: Considerations Before Starting a Study](#)\*\*\*\*\*

### Subcore **Tissue and *In vivo* Imaging**

742 Light Hall

Director: [Sam Wells, Ph.D.](#)

### Subcore **Bariatric Surgery**

843 Light Hall

Director: [Louise Lantier, Ph.D.](#)

### Subcore **Murine Pancreatic Islet Isolation Core** (run through the Vanderbilt DRTC)

748 Preston Research Building

Director: [Marcela Brissova, Ph.D.](#)

Research Assistant: [Anastasia Golovin](#)

## Attachments

 [Bariatric\\_surgery.docx](#) - Added on October 21, 2014 at 8:14 AM by [Fran Tripp](#)

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 [MMPC\\_Energy\\_balance\\_core\\_experimental\\_design\\_notes.docx](#) - Added on October 21, 2014 at 8:18 AM by [Fran Tripp](#)

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