

Rat Metabolic Physiology Sub-Core

Rat Metabolic Physiology Core (RMPC)

Keywords: [rat](#) [physiology](#) [metabolism](#) [clamp](#) [DMPK](#)

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The Metabolic Physiology Shared Resource (MPSR) ([Kevin Niswender, MD, Ph.D.](#), Director) assists investigators wishing to address hypotheses related to diabetes and metabolism. The **Rat Metabolic Physiology Core (RMPC)** is a section of the MPSR that provides novel techniques to better understand specifically rat models of diabetes and its complications. We are located in rooms 7440 MRBIV (lab) and 7435 MRBIV (office).

The RMPC offers a variety of services including:

- Chronic artery &/or vein cannulation
- Ileal vein cannulation
- Portal vein cannulation
- Insulin clamp
- Pancreatic clamp
- Hyperglycemic Clamp
- Drug Metabolism and Pharmacokinetic Study
- Indirect calorimetry
- Blood pressure measurement
- and more

[Surgical procedures](#)

[Non-Surgical Procedures](#)

[Indirect Calorimetry](#)

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Contact Info:

Director: Kevin Niswender, MD, PhD kevin.niswender@vanderbilt.edu

Lab Manager: Tiffany Farmer, MS t.farmer@vumc.org

Our Goals

- broaden the scope of techniques available to investigators
- standardize key methodologies
- expedite the completion of research

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Publications / Citations

1. [Comparison of the physiological relevance of systemic vs. portal insulin delivery to evaluate whole body glucose flux during an insulin clamp](#). Farmer TD, Jenkins EC, O'Brien TP, McCoy GA, Havlik AE, Nass ER, Nicholson WE, Printz RL, Shiota M (2015) *Am J Physiol Endocrinol Metab* **308(3)**: E206-22
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MeSH Terms

Administration, Intravenous Animals Blood Glucose Catheterization, Peripheral Glucagon Glucose Clamp Technique Hyperglycemia
Insulin Male Portal Vein Rats Rats, Sprague-Dawley