Resource Summary Report

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Vanderbilt University Mouse Metabolic Phenotyping Center Core Facility

RRID:SCR_021939
Type: Tool

Proper Citation

Vanderbilt University Mouse Metabolic Phenotyping Center Core Facility (RRID:SCR_021939)

Resource Information

URL: https://vmmpc.org/

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Description: Centralized resource for study of mouse models of diabetes, obesity, and related disease. Includes animal housing, energy balance, telemetry, and experiment rooms and surgical suites. Develops, standardizes, and provides surgical and experimental services for phenotyping mice. Surgical procedures include venous and arterial catheterizations, cannulation of brain regions, bariatric surgeries, and islet transplantations. VMMPC uses flexible platforms to study nutrient metabolism and energy balance that can be readily adapted for specific experimental requirements. Use of dual arterial and venous catheter implantation permit glucose clamps, treadmill exercise, metabolic flux analyses, and other procedures to be studied without the stress of handling mice. VMMPC offers courses annually to disseminate research laboratory practices for mouse.

Abbreviations: VMMPC

Synonyms: NIDDK - Vanderbilt Mouse Metabolic Phenotyping Center, Vanderbilt Mouse Metabolic Phenotyping Center

Resource Type: core facility, access service resource, service resource

Keywords: USEDit, ABRF, mouse models, diabetes, obesity studies, animal housing, energy balance, telemetry, experiment rooms, surgical suites, phenotyping mice services

Funding:

Resource Name: Vanderbilt University Mouse Metabolic Phenotyping Center Core Facility

Resource ID: SCR_021939

Alternate IDs: ABRF_1274

Alternate URLs: https://coremarketplace.org/?FacilityID=1274

Record Creation Time: 20220421T050137+0000

Record Last Update: 20250421T054352+0000

Ratings and Alerts

No rating or validation information has been found for Vanderbilt University Mouse Metabolic Phenotyping Center Core Facility.

No alerts have been found for Vanderbilt University Mouse Metabolic Phenotyping Center Core Facility.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 10 mentions in open access literature.

Listed below are recent publications. The full list is available at NIF.

Winn NC, et al. (2024) Insulin at the intersection of thermoregulation and glucose homeostasis. Molecular metabolism, 81, 101901.

Schleh MW, et al. (2024) Deficiency of the hemoglobin-haptoglobin receptor, CD163, worsens insulin sensitivity in obese male mice. bioRxiv : the preprint server for biology.

Winn NC, et al. (2024) Endothelial ?1 Integrins are Necessary for Microvascular Function and Glucose Uptake. bioRxiv : the preprint server for biology.

Laughlin M, et al. (2024) The mouse metabolic phenotyping center (MMPC) live consortium: an NIH resource for in vivo characterization of mouse models of diabetes and obesity. Mammalian genome : official journal of the International Mammalian Genome Society, 35(4), 485.

Zhang Y, et al. (2024) A Structure-function Analysis of Hepatocyte Arginase 2 Reveals Mitochondrial Ureahydrolysis as a Determinant of Glucose Oxidation. Cellular and molecular gastroenterology and hepatology, 17(5), 801.

Winn NC, et al. (2024) Increased cGMP improves microvascular exercise training adaptations independent of endothelial nitric oxide synthase. bioRxiv : the preprint server for biology.

Shibao C, et al. (2024) Microvascular insulin resistance associates with enhanced muscle glucose disposal in CD36 deficiency. medRxiv : the preprint server for health sciences.

Nandy A, et al. (2023) Lipolysis supports bone formation by providing osteoblasts with endogenous fatty acid substrates to maintain bioenergetic status. Bone research, 11(1), 62.

Winn NC, et al. (2023) Insulin at the Intersection of Thermoregulation and Glucose Homeostasis. bioRxiv : the preprint server for biology.

Williams AS, et al. (2020) Disruption of Acetyl-Lysine Turnover in Muscle Mitochondria Promotes Insulin Resistance and Redox Stress without Overt Respiratory Dysfunction. Cell metabolism, 31(1), 131.