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: access service resource, core facility, service resource

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

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: 20260905T133423+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 17 mentions in open access literature.

Listed below are recent publications. The full list is available at PRECISE-TBI .

Bock F, et al. (2026) ?-Parvin promotes glucose uptake and metabolism in skeletal muscle with minimal influence on hepatic insulin sensitivity. Molecular metabolism, 105, 102322.

Cambraia A, et al. (2026) Calorie Restriction Upregulates Islet PD-L1 Signaling and Decreases the Risk of Autoimmune Diabetes Onset in NOD Mice. bioRxiv : the preprint server for biology.

Harford TJ, et al. (2026) Microbial Metabolite 4EPS Inhibits AT1R to Reduce Blood Pressure and Aortic Aneurysm Outcome. Hypertension (Dallas, Tex. : 1979), 83(3), e25364.

Kindel M, et al. (2026) Exercise-induced activation of ventromedial hypothalamic steroidogenic factor-1 neurons mediates improvements in endurance. Neuron, 114(9), 1564.

Shibao CA, et al. (2025) Microvascular insulin resistance with enhanced muscle glucose disposal in CD36 deficiency. Diabetologia, 68(3), 662.

Garcia JN, et al. (2025) Interrupting T cell memory ameliorates exaggerated metabolic response to weight cycling. bioRxiv : the preprint server for biology.

Bock F, et al. (2025) ?-Parvin Promotes Glucose Uptake and Metabolism in Skeletal Muscle with Minimal Influence on Hepatic Insulin Sensitivity. bioRxiv : the preprint server for biology.

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

Winn NC, et al. (2024) Endothelial ?1 Integrins are Necessary for Microvascular Function and Glucose Uptake. 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.

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

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.

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.

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.

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.