Resource Summary Report

Generated by RRID on Aug 4, 2026

CMHD - Centre for Modeling Human Disease

RRID:SCR_006101
Type: Tool

Proper Citation

CMHD - Centre for Modeling Human Disease (RRID:SCR_006101)

Resource Information

URL: http://www.cmhd.ca/

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Description: Multidisciplinary collaboration undertaking genome-wide mutagenesis to functionally annotate the mouse genome and develop new mouse models relevant to human disease. To achieve these goals two major research platforms are carried out: Gene trapping and ENU Mutagenesis. A new challenge is faced in the post-genomic era - the assignment of biological function to the human genome sequence and projecting that assignment into understanding of human health and disease. The Centre for Modeling Human Disease (CMHD) was established to take part in the worldwide initiative to address these challenges. At the CMHD, two fundamentally different, yet complimentary methods are employed to generate mutant mouse models of human disease: chemical mutagenesis by ethylnitrosourea (ENU), and gene trap insertional mutagenesis. The Centre contributes its resources to similar international efforts and is the first of its kind in Canada. The Center is also actively developing other mutagenic strategies including pharmacologic and genetic modifier screens to dissect disease pathways, and novel mutagenic techniques using embryonic stem cells. ENU Database * Statistics for Mouse Physiological Parameters * Search Mutants by Phenotype * Search Mutants by Heritability Gene Trap Database * Search by in vitro Expression Pattern * Search by Gene Trap Sequences CMHD Members Only (must register and login) * Search Mouse Line * Histopathology * Sperm, Tissue, Slide Archiving * CMHD Database Download CMHD Services * Phenotyping * Genetic Mapping * Pathology * Pathology Service Charges

Abbreviations: CMHD

Synonyms: Centre for Modeling Human Disease

Resource Type: biomaterial manufacture, production service resource, material service resource, data or information resource, database, analysis service resource, service resource

Keywords: mutant, mouse model, chemical mutagenesis, ethylnitrosourea, gene trap insertion, mutagenesis, genome-wide mutagenesis, mouse genome, genome, phenotype, heritability, expression pattern, sequence, image, neurobiology, behavior, embryonic stem cell, gene trapping, enu mutagenesis, human disease

Related Condition: Human disease

Funding: CIHR ;
Genome Canada

Availability: Non-CMHD users are required to register and log in only if you wish to view images on our mouse models.

Resource Name: CMHD - Centre for Modeling Human Disease

Resource ID: SCR_006101

Alternate IDs: nlx_151636

Record Creation Time: 20220129T080234+0000

Record Last Update: 20260804T043253+0000

Ratings and Alerts

No rating or validation information has been found for CMHD - Centre for Modeling Human Disease.

No alerts have been found for CMHD - Centre for Modeling Human Disease.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 12 mentions in open access literature.

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

Raileanu VN, et al. (2019) Banking Mesenchymal Stromal Cells from Umbilical Cord Tissue: Large Sample Size Analysis Reveals Consistency Between Donors. Stem cells translational medicine, 8(10), 1041.

Whiteley J, et al. (2018) Topical Application of Culture-Expanded CD34+ Umbilical Cord Blood Cells from Frozen Units Accelerates Healing of Diabetic Skin Wounds in Mice. Stem cells translational medicine, 7(8), 591.

Kirshenbaum GS, et al. (2016) Deficits in social behavioral tests in a mouse model of alternating hemiplegia of childhood. Journal of neurogenetics, 30(1), 42.

Kirshenbaum GS, et al. (2016) Transgenic rescue of phenotypic deficits in a mouse model of alternating hemiplegia of childhood. Neurogenetics, 17(1), 57.

Zappitelli T, et al. (2015) Up-regulation of BMP2/4 signaling increases both osteoblast-specific marker expression and bone marrow adipogenesis in Gja1Jrt/+ stromal cell cultures. Molecular biology of the cell, 26(5), 832.

Adissu HA, et al. (2014) Histopathology reveals correlative and unique phenotypes in a high-throughput mouse phenotyping screen. Disease models & mechanisms, 7(5), 515.

Kelsey L, et al. (2013) ENU-induced mutation in the DNA-binding domain of KLF3 reveals important roles for KLF3 in cardiovascular development and function in mice. PLoS genetics, 9(7), e1003612.

Kirshenbaum GS, et al. (2013) Alternating hemiplegia of childhood-related neural and behavioural phenotypes in Na+,K+-ATPase ??3 missense mutant mice. PloS one, 8(3), e60141.

Biechele S, et al. (2013) Zygotic Porcn paternal allele deletion in mice to model human focal dermal hypoplasia. PloS one, 8(11), e79139.

Kujjo LL, et al. (2011) Chemotherapy-induced late transgenerational effects in mice. PloS one, 6(3), e17877.

Reilly PT, et al. (2010) Generation and characterization of the Anp32e-deficient mouse. PloS one, 5(10), e13597.

Adams DJ, et al. (2008) Contemporary approaches for modifying the mouse genome. Physiological genomics, 34(3), 225.