

Resource Summary Report

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MICe - Mouse Imaging Centre

RRID:SCR_006145

Type: Tool

Proper Citation

MICe - Mouse Imaging Centre (RRID:SCR_006145)

Resource Information

URL: <http://www.mouseimaging.ca/>

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Description: A unique resource and comprehensive imaging facility combining the latest state-of-the-art digital medical imaging technologies for the characterization of mouse functional genomics. The goals of the Mouse Imaging Centre are: * To provide a variety of medical imaging technologies adapted to studying genetically modified mice. These technologies include magnetic resonance (MR) imaging, micro computed tomography (micro-CT), ultrasound biomicroscopy (UBM), and optical projection tomography (OPT). * To screen large numbers of mice for models of human diseases. * To image an individual mouse over time to observe development, disease progression and responses to experimental treatment. * To develop an exciting team of investigators with expertise in imaging techniques, computer science, engineering, imaging processing, developmental biology and mouse pathology. * To work by collaboration with researchers throughout the world. When we look for human diseases in the human population, we make extensive use of medical imaging. Therefore, it makes sense to have available the same imaging capabilities as we investigate mice for models of human disease. The Mouse Imaging Centre (MICe) has developed high field magnetic resonance imaging microscopy, ultrasound biomicroscopy, micro computed tomography, and optical techniques. With these imaging tools, MICe is screening randomly mutagenized mice to look for phenotypes that represent human diseases and is taking established human disease models in mice and using imaging to follow the progression of disease and response to treatment over time. It is clear that imaging has a major contribution to make to phenotyping genetic variants and to characterizing mouse models. MICe is staffed by an exciting new team of about 30 investigators with expertise in imaging techniques, computer science, engineering, imaging processing, developmental biology and mouse pathology. The Mouse Imaging Centre (MICe) is not a fee-for-service facility but works through collaborations. Services include: * Projects involving MicroCT are available as a fee for service. * We will eventually move to the same model above with MRI. * Ultrasound Biomicroscopy is used for cardiac, embryo and cancer studies and is available as fee for service at \$100 per study or in some cases on a collaborative basis. * Optical Projection

Tomography has only limited availability on a collaborative basis. Mouse Atlas As our images are inherently three-dimensional, we will be able to make quantitative measures of size and volume. With this in mind, we are developing a mouse atlas showing the normal deviation of organ sizes. This atlas is an important resource for biologists as it has the potential to eliminate the need to sacrifice as many controls when making comparisons with mutants. Mouse Atlas Examples: * Variational Mouse Brain Atlas * Cerebral Vascular Atlas of the CBA Mouse * Neuroanatomy Atlas of the C57Bl/6j Mouse * Vascular Atlas of the Developing Mouse Embryo * Micro-CT E15.5 Mouse Embryo Atlas

Abbreviations: MICE

Synonyms: Mouse Imaging Centre, Mouse Imaging Center, Mouse Imaging Centre (MICE)

Resource Type: reference atlas, portal, production service resource, service resource, topical portal, atlas, data or information resource

Keywords: imaging, functional genomics, mutant mouse, mri, micro computed tomography, ultrasound biomicroscopy, optical projection tomography, phenotype, genetic variant, brain, image

Related Condition: Human disease

Funding: Burroughs Wellcome Fund ;
Canada Foundation for Innovation ;
Canada Research Chairs ;
Canadian Institutes of Health Research ;
National Cancer Institute of Canada ;
NIH ;
Ontario Innovation Trust ;
Ontario Research and Development Challenge Fund ;
commercial partners

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Resource ID: SCR_006145

Alternate IDs: nlx_151635

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Record Last Update: 20260804T043301+0000

Ratings and Alerts

No rating or validation information has been found for MICE - Mouse Imaging Centre.

No alerts have been found for MICE - Mouse Imaging Centre.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 3 mentions in open access literature.

Listed below are recent publications. The full list is available at [ASWG](#) .

Choi SE, et al. (2026) The "route cause" of methotrexate-induced brain structure changes in a juvenile mouse model: Comparison of systemic and CNS-targeted chemotherapy. *Neurotoxicology*, 112, 103363.

Vandenberghe ME, et al. (2018) Voxel-Based Statistical Analysis of 3D Immunostained Tissue Imaging. *Frontiers in neuroscience*, 12, 754.

Lerch JP, et al. (2008) Cortical thickness measured from MRI in the YAC128 mouse model of Huntington's disease. *NeuroImage*, 41(2), 243.