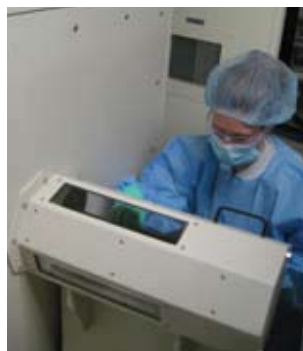


In Vivo Computed Tomography

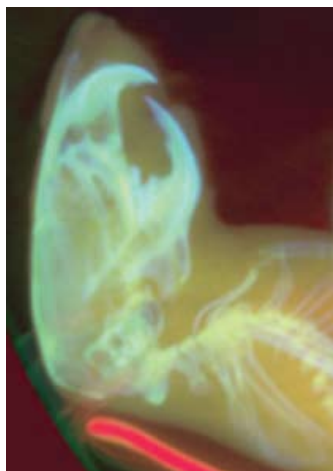
Discovery and Imaging Expertise



Molecular Imaging scientists and discovery disease area experts leverage substantial preclinical imaging expertise to implement, develop, optimize and validate imaging paradigms for drug development across broad range of therapeutic areas.

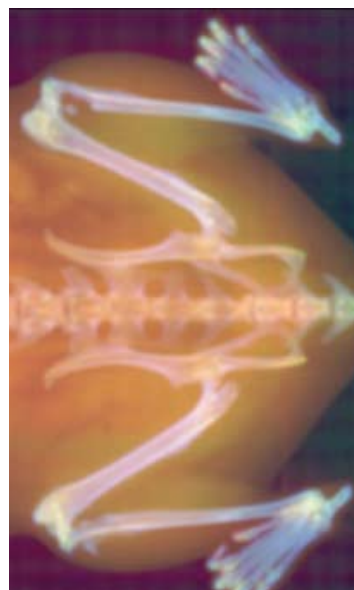
With our own small animal micro-CT scanners, operated by experienced imaging scientists, the Molecular Imaging team can increase the power of data in your in vivo program.

Molecular Imaging Expertise



- Optimization of imaging and analysis throughput
- Validated, optimized procedures to maximize statistical power
- Rapid reconstruction and quantification
- Proprietary scoring system in bone erosion models
- Studies performed by highly trained, skilled and experienced imaging scientists

Validated Protocols



- Imaging of bone metastasis in validated intracardiac and intratibial models
- Imaging of osteolytic and osteoblastic activity*, using staged treatment or prevention paradigms
- Bone erosion in several validated mouse and rat models of arthritis*
- Imaging of developmental CT contrast agents
- Ex vivo imaging of bone samples
- Vascular mapping of contrast perfused tumors

**Includes quantification of bone erosion using CT histogram and proprietary scoring system*

Bone Imaging

Micro-CT images can be used to characterize bone loss and growth, including bone density and microstructure. Anatomical CT imaging enables assessment of bone remodeling and calcification. CT is the preferred translational technology for the quantification of metastatic and arthritic bone disease. We have an array of validated models of bone disease, including several models of bone metastasis and rheumatoid arthritis.



Early



Mid



Late

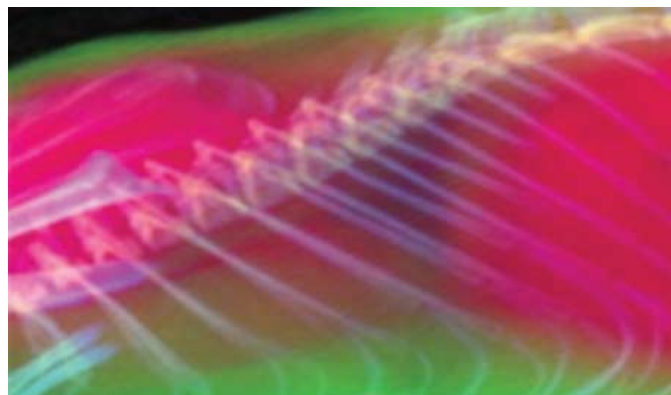
PC-3M-luc bone metastasis progression in the mouse hind limb.



Collagen-induced arthritis in mouse: Effective methotrexate dosage level (left) compared with ineffective dexamethasone dosage level (right).

Soft Tissue Imaging

Our RS-150 micro-CT platform facilitates CT-based soft tissue imaging through a high confluence X-ray tube that enables unusually short exposure times. Additionally, standard CT contrast agents can be used to enhance soft tissue contrast, and *in vivo* performance of developmental CT contrast agents can be characterized.



High Throughput

Through streamlined imaging protocols and image post-processing, we generate and analyze high-quality images in a rapid and cost-effective manner. A one-week turnaround from study start to finished report is possible for bone sample imaging studies.

Reporting

Weekly data updates during studies keep you informed of study progress, and full detailed reports, including graphics and statistical analyses, are issued within five weeks of study termination. Clients receive all raw pharmacology and image data from studies, including image viewing and analysis software.



Rat model of rheumatoid arthritis: Naïve vs diseased hind paw comparison.