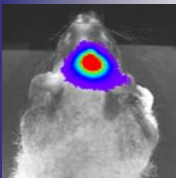
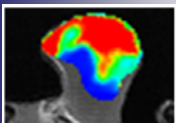
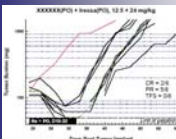
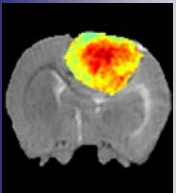
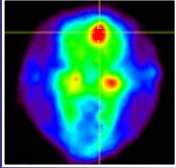


MIR

Innovation in Drug
Evaluation

MIR Preclinical Services



MIR Preclinical Services (MIR) is a contract research organization (CRO) that specializes in preclinical oncology assessments and evaluation of novel anti-tumor agents using xenograft, orthotopic and transgenic animal models.

MIR employs a wide array of novel imaging technologies including preclinical MRI, preclinical CT (μ CT) preclinical PET (μ PET) and biophotonic (bioluminescence and fluorescence) imaging to measure response to therapy at anatomical and molecular levels. We can measure biological processes, such as signal transduction, angiogenesis, apoptosis (proteases), DNA damage, and other biologically relevant processes important in animal models of human disease.

Capabilities

Traditional *In-vivo* Efficacy

- MTD Determination
- Growth delay and survival using caliper measurements

Preclinical MRI

- T1 and T2 weighted Imaging
- Diffusion MRI
- Dynamic Contrast enhanced (DCE) MRI
- Chemical shift/spectral analysis

In Vitro Services

- IC_{50} Determinations
- Solubility Assays

μ CT

- Anatomical imaging
- Soft Tissue Contrast Imaging

Bioluminescence/Fluorescence

- Methods licensed from Xenogen
- Apoptosis
- Physiological Changes
- Gene Expression Analysis

Preclinical PET with CT co-registration

- Molecular Tracing of Compounds
- Metabolic Imaging

Facilities

MIR is located near the Ann Arbor airport, in the center of Michigan's biotechnology corridor. MIR owns and operates, on site, a 7 Tesla Varian small animal MRI system with a 12 cm imaging bore, a GE RS150 μ CT scanner, a Gamma Medica XPET™ co registered μ CT Flex™ system and a Xenogen™ Ivis® biophotonic imaging system. MIR has a tissue culture facility, surgical facilities, imaging suites contiguous its large vivarium as well as biological and chemical laboratory facilities. The company also has well equipped chemistry and molecular biology laboratories to support its operations.

Services

Anticancer Efficacy

- SC Models
- Orthotopic Models
- Transgenics

Anatomical and functional Imaging

Imaging of molecular events

Metabolic Imaging

Pharmacokinetics

Pharmacodynamics

Histology

In Vitro Services

Consulting

New Services & Technology

MIR is beginning to offer in vitro services as part of its client offering. This will allow clients to go directly from in vitro to in vivo systems using the same cell lines. MIR offers IC_{50} determinations with a number of cell lines using any of a number of client requested standard therapeutics of various classes. This will allow both sets of data to be directly compared and analyzed.

MIR Preclinical Services
800 Technology Drive
Ann Arbor, MI. 48108

www.molecularimaging.com
Phone: 734.821.1063
Fax: 734.821.1066

For more information contact
Frank Urban, MS, CBA
frank@molecularimaging.com

Unique Features

- MIR's senior management team has nearly 60 years of drug discovery experience in cancer pharmacology
- MIR is the only preclinical CRO to offer in vivo bioluminescence and fluorescence imaging services under a landmark license with Xenogen™ Corporation. MIR can perform studies for clients using this license, even if clients do not have a license of their own
- MIR has over 150 tumor models suited for in vivo use
- MIR owns and operates all of their own imaging equipment on site.
- MIR offers PK, histology, immunohistochemistry, pathology and other services through alliances with preferred vendors. Thus, clients can have all of these services performed under 1 contract. With MIR's preferred vendor discount, this can frequently be done at costs below what a client would get contracting these services separately.



7 Tesla MRI



X-Ray μCT



Preclinical Pet with Co Registered X-Ray μCT



Thoren Micro-isolation

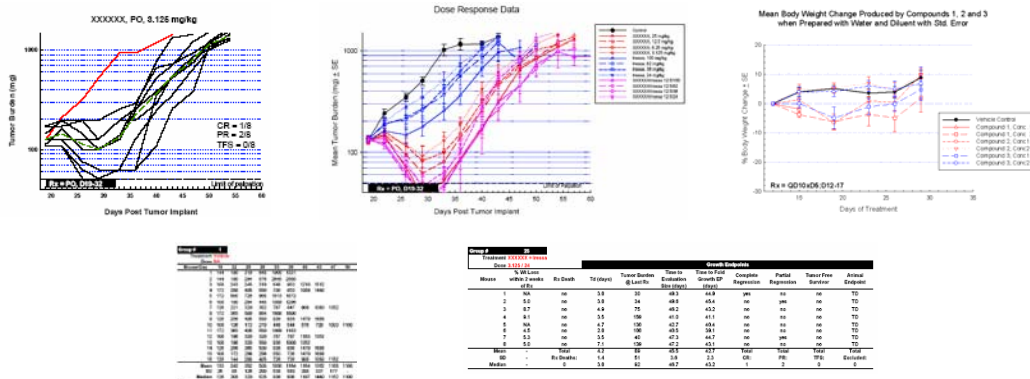


Bio/Chem Laboratories



Reports

MIR can produce detailed reports with all commonly accepted endpoints, customized endpoints and publication quality graphics. These reports contain all of the raw experimental data with detailed tables and figures that allow for easy interpretation. MIR sends timely interim (weekly) reports as well as hard copy and electronic final reports.



Management Team

W.R. (Dick) Leopold, PhD, President and CEO

Dr. Leopold has more than 29 years of research and management experience in the field of cancer research and drug development. Prior to joining MIR, Dr. Leopold was Executive Director of cancer pharmacology and Therapeutic Area Site Leader for Oncology at Pfizer's Ann Arbor laboratories. He was a co-founder of the Cancer Drug Discovery Program at Parke-Davis in 1982, assuming leadership of the program in 1998.

William Elliott, PhD, Vice-President, Pharmacology and Quality Assurance

Dr. Elliott has more than 21 years research experience in the field of cancer research and drug development. Prior to joining MIR, Dr. Elliott was the *In-vivo* Group Leader for the Cancer Pharmacology effort at Pfizer's Ann Arbor laboratories. Dr. Elliott joined Parke-Davis in 1987, assuming the group leader position in 1991.

Patrick McConville, PhD, Director, Imaging Services

Dr. McConville has a Ph.D. in Biophysics and over 12 years of Biomedical Magnetic Resonance Imaging (MRI) research experience. Before joining MIR, Dr. McConville completed a postdoctoral fellowship at the National Institute on Aging, NIH, using in vivo MRI and MR spectroscopy in various animal models.

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