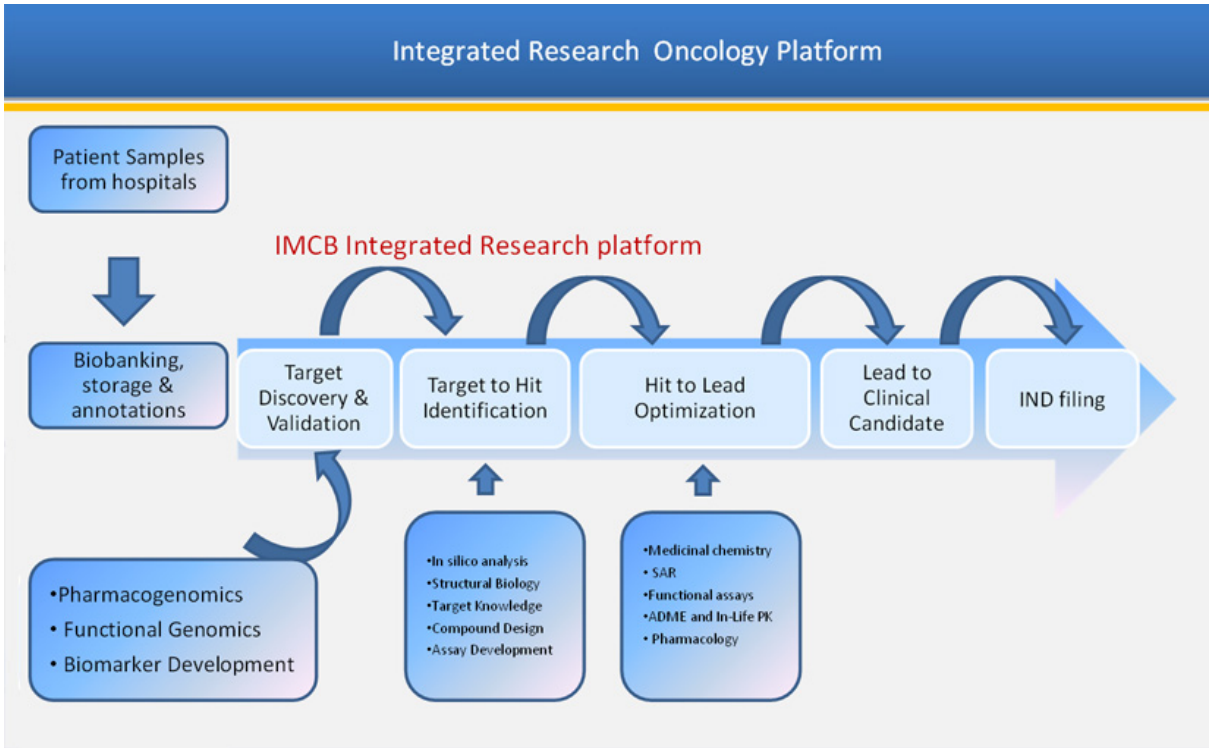
Research

Mouse models of Disease

About Us

Mouse Models of Human Cancer is a uniquely positioned unit in Institute of Molecular and Cell Biology (IMCB) that provides comprehensive drug discovery platform to academic and Pharmaceutical industry. We have a strong talent pool of scientists from both academic and industrial background. Our capabilities span from specific solutions to integrated discovery projects across multiple therapeutic areas with specific focus on Cancer, Inflammation, Autoimmune & Metabolic Disorders.

We are positioned to engage or address any drug discovery concepts, issues, opportunities, questions or challenges by performing structured and thorough drug discovery programmes from target validation to preclinical discovery. Please get in touch with us if you would like to work with our world class team of experts and innovative technology platforms for initial phases of drug discovery.



Our research capabilities include:

- Biology

- **Cell based assays**
- *In vitro* ADME Screen
- *In-life* Pharmacokinetics
- **Mouse Models of Human Cancer**

For Contact:

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Mouse Models of Human Cancer

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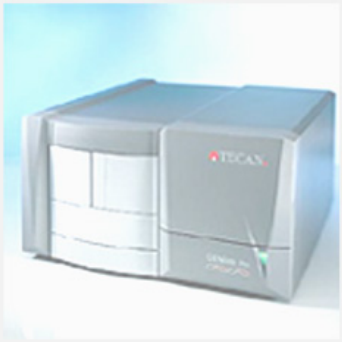
In-vitro Biology

Assay Development & Validation

- Biochemical assays
- Cell Based Assays
- Phenotypic Assays
- Target or Pathway Specific Assays



Target Classes

- Kinases
- GPCRS
- Proteases
- Transporters
- Other enzymes

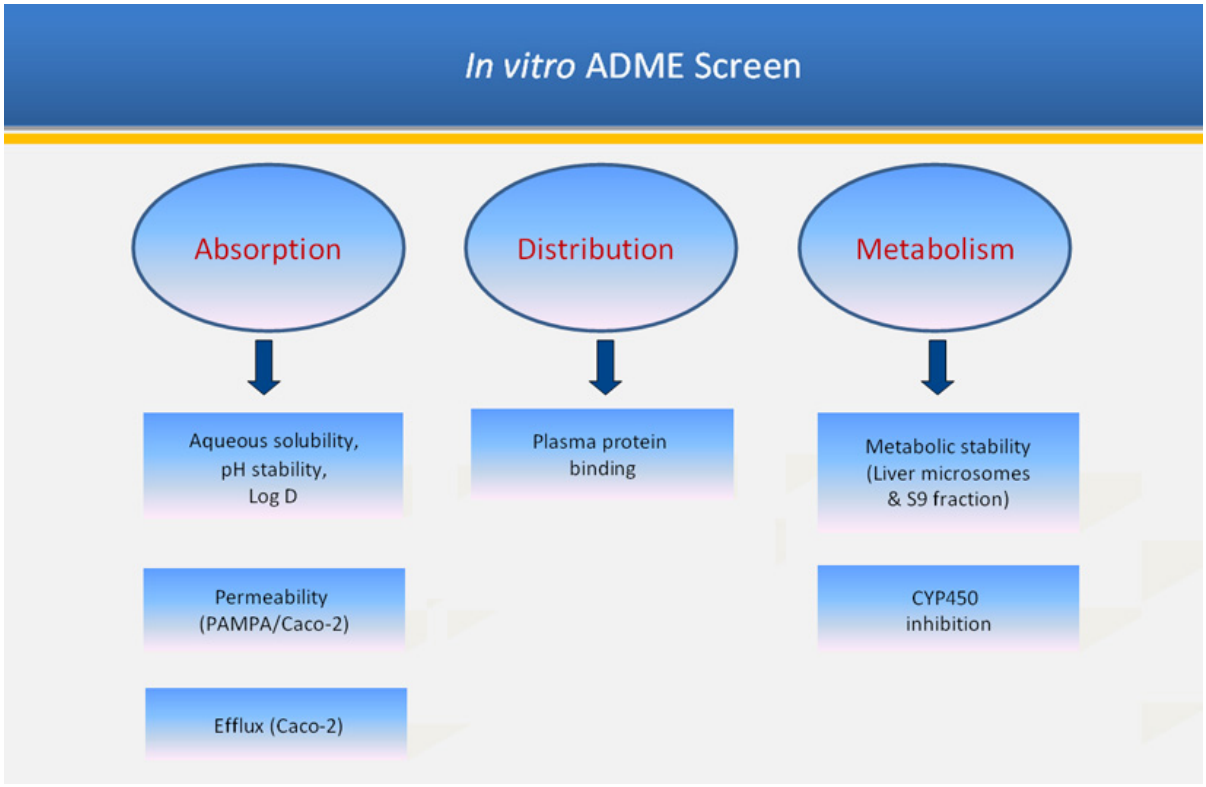
Assay Technologies

- Fluorescence/Colorimetric
- ELISA
- FACS
- Alphascreen
- HTRF

In vitro-Cell based assays

Cell based assays

- Cell Proliferation (MTT/Alamar blue/WST-1/[3H]-Thymidine incorporation/BrdU)
- Death (Cytotoxicity)
  - Apoptosis (Caspase 3 & 8, DNA laddering)
  - Necrosis (Calcein AM, Trypan blue exclusion, ATP depletion, LDH release)
- Clonogenicity assays
- Cell Migration assays
- Angiogenesis assay
- Reporter gene (Luminescence, GFP and β -Gal)
- Phosphorylation (CELISA)
- Cell cycle analysis
- *In-vitro* drug combination studies
- Chemokine/Cytokine release (ELISA)


In vitro ADME Screen
Absorption
Distribution
Metabolism
Aqueous solubility, pH stability, Log D
Permeability (PAMPA/Caco-2)
Efflux (Caco-2)
Plasma protein binding
Metabolic stability (Liver microsomes & S9 fraction)
CYP450 inhibition

Mouse Models of Human Cancer

Cancer models

- Subcutaneous Xenograft models
- Orthotopic mouse models
- Transgeneic mouse models
- Metastatic mouse models
- Angiogenesis model
- *In vivo* Bioluminescence Imaging
- Patient Derived Xenografts

Pharmacokinetic/Pharmacodynamic (PK/PD)Relationship