

Institute of Translational Medicine 2010-2014

ITM: Research Themes

Women's & Children's Health

- ❖ Global Evidence Based W&CH (systematic reviews and clinical trials)
- ❖ Perinatal and Paediatric Pharmacology
- ❖ Musculoskeletal and inflammation
- ❖ Infection
- ❖ Respiratory disease
- ❖ Cancer (endometrium, paediatric oncology)

Molecular & Clinical Cancer Medicine

- ❖ Biology of cancer and precancerous conditions
- ❖ Cancer diagnosis
- ❖ Preclinical and clinical evaluation of novel therapy
- ❖ Biomarker discovery and development

Clinical
& human
studies

In vitro
models

In vivo
models

Biostatistics

- ❖ Clinical Trials
- ❖ Statistical Genetics
- ❖ Statistical Modelling

Molecular & Clinical Pharmacology

- ❖ Personalized Medicines
- ❖ Nervous system disease
- ❖ Infection Pharmacology
- ❖ Drug Safety Science

Cellular & Molecular Physiology

- ❖ Tissue/Systems Physiology
- ❖ Cell Signalling in Health and Disease
- ❖ Protein Homeostasis

Gastroenterology

- ❖ Microorganisms and the gut
- ❖ Gastrointestinal cancer

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Pathological & Toxicological

Physiological

Pharmacological

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ITM: Enabling Technologies

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Mass spectrometry
Imaging
Human primary cells
Informatics
GCLP
Mathematical modelling

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ITM: Cross Cutting Themes

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Disease
Cell death
Cell signalling
Inflammation
Immunology
Patient variation
Novel interventions

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ITM: Funding/Investment Priorities

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Translating Concepts into Programmes Grants

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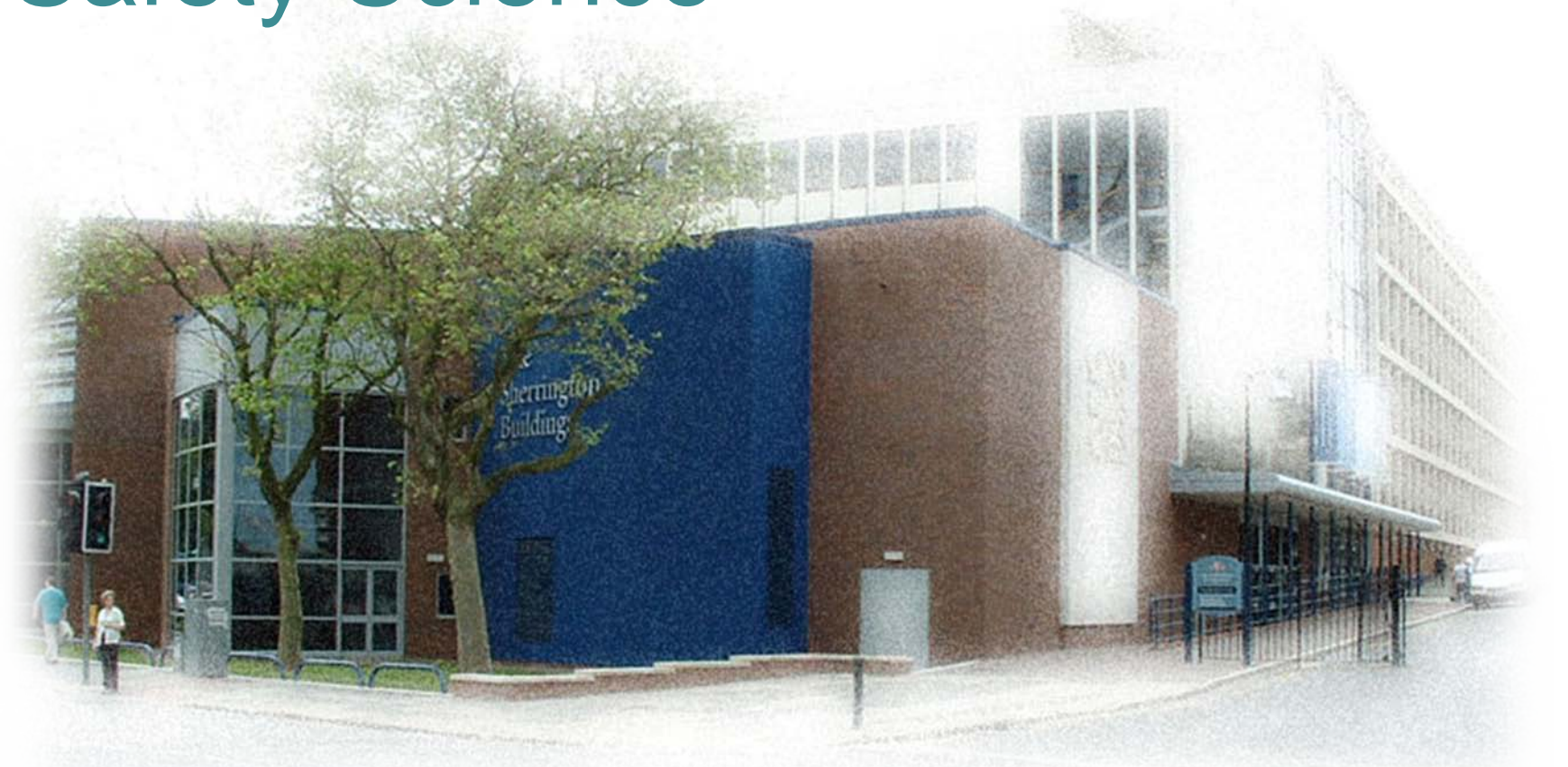
Gastroenterology

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Centre for Drug Safety Science

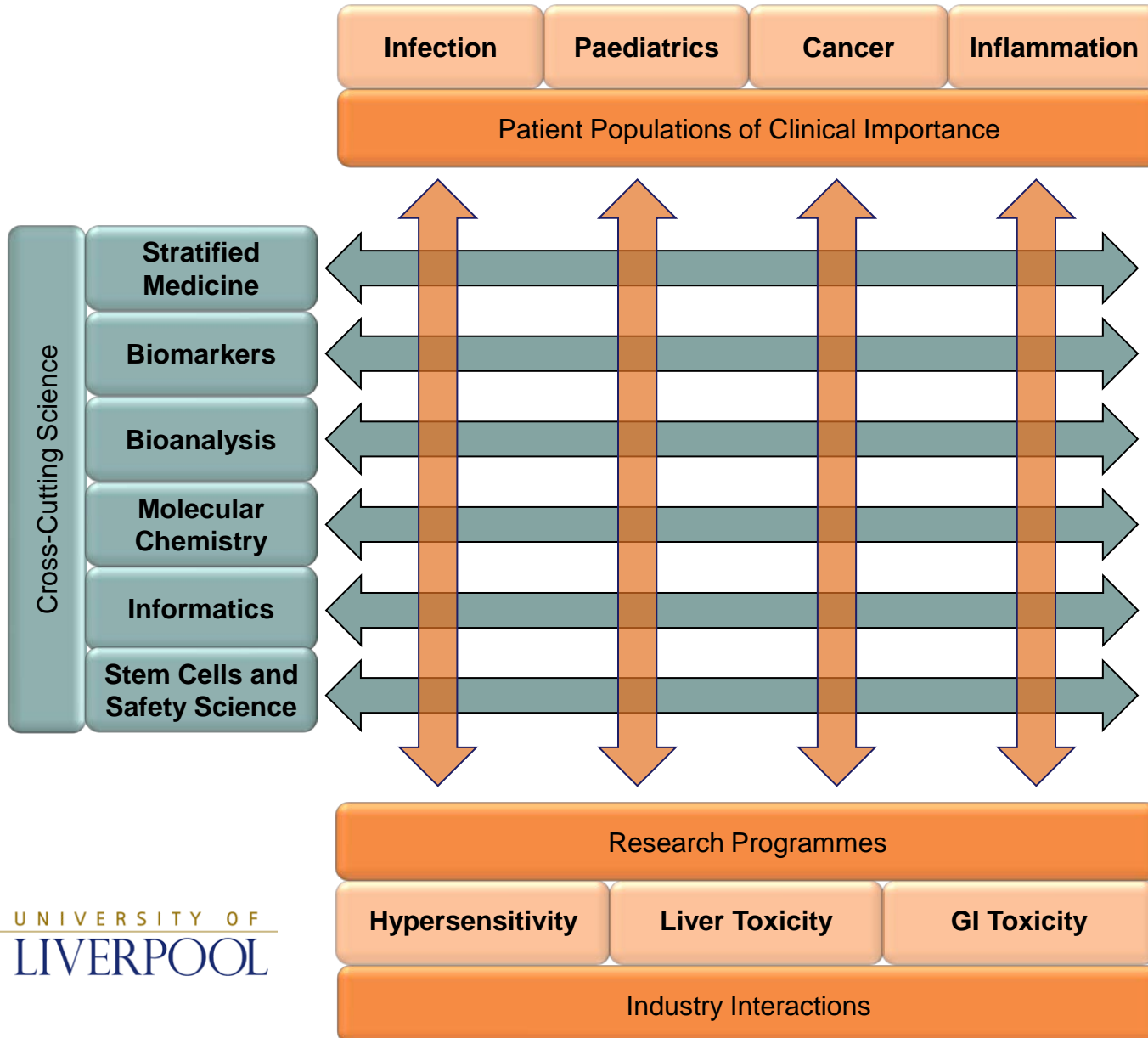
MRC

Centre for
Drug Safety Science

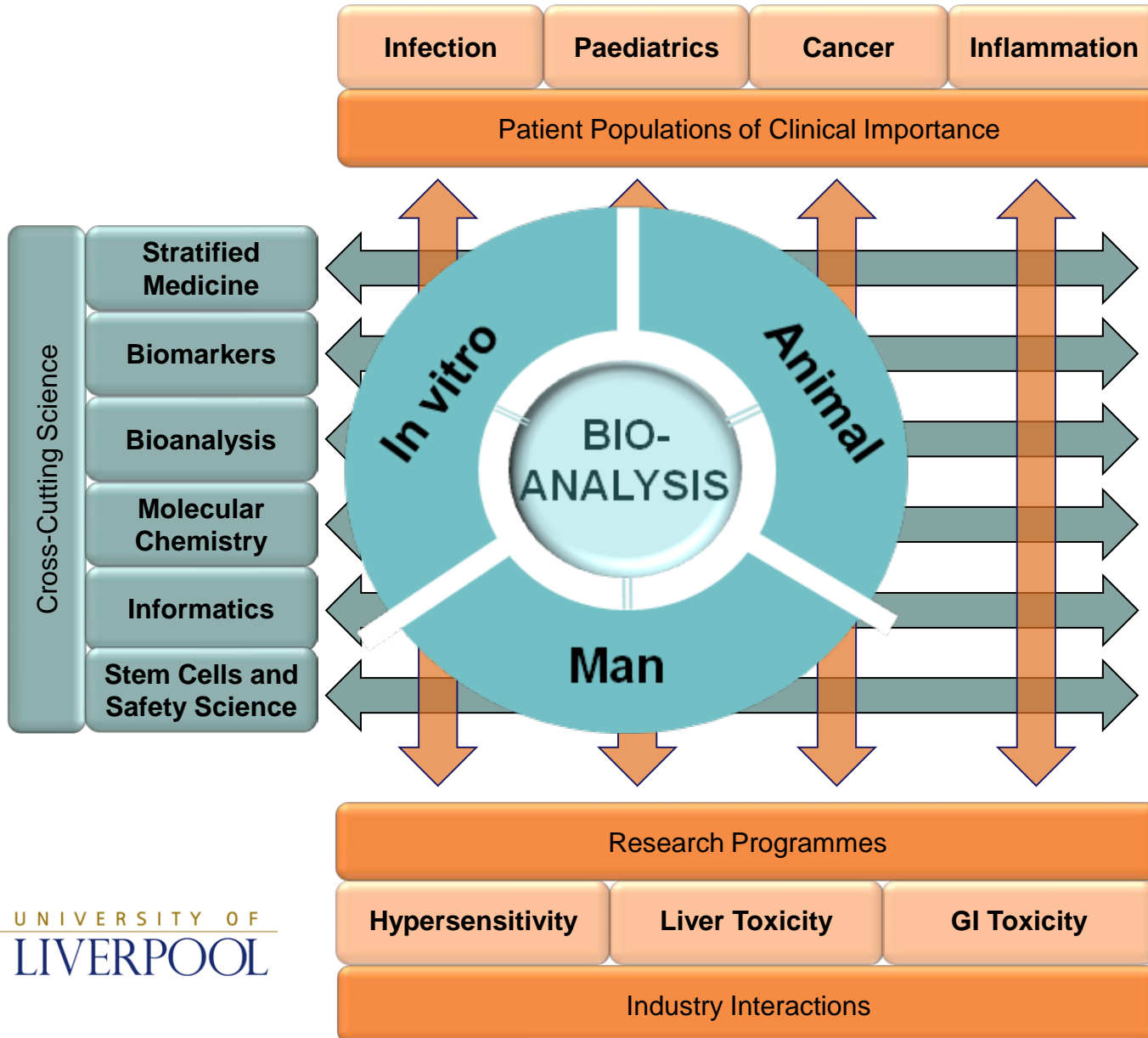


Understanding Mechanisms of
Adverse Drug Reactions

Centre vision and strategy 2014 - 2019



Centre vision and strategy 2014 - 2019



UKRMP Safety and Efficacy Hub



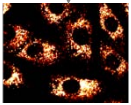
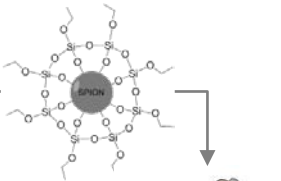
UK REGENERATIVE
MEDICINE PLATFORM

- **£4.5m MRC Award over 4 years.**
- 4 partner sites – UoL (lead), Manchester, UCL, Edinburgh.
- 3 Phd Students started Oct 2013 (UoL), 10 PDRAs to be appointed over 4 sites; 4 at UoL – recruitment underway), Administrator in post (UoL).
- Chair of Pre-clinical Imaging advertised (UoL).
- **Additional £3.5m MRC Capital Award – Pre-clinical Imaging.**
 - Multispectral Optoacoustic Tomography (MSOT) instrument installed end Sep 2013
 - IVIS Spectrum due to be installed by end Dec2013.
 - Refurbishment of Yellow Block, Physiology, to house high field small animal MR scanner (£2m) – project plan underway.
 - Specification currently being drawn up for low-field bench top MR scanner, to be installed at Manchester.

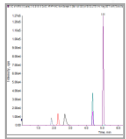
UKRMP



SPIONS



Bioanalysis



P P T

MRC

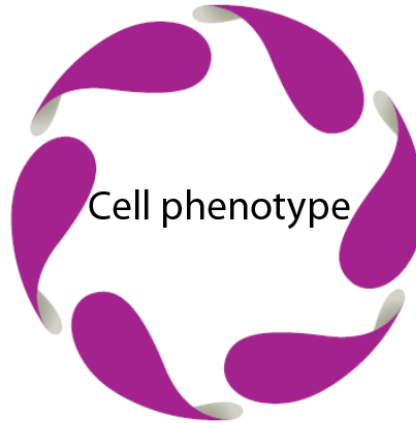
Centre for Drug Safety Science



Centre for Regenerative Medicine



Clinical studies
Translational models



Kidney models

MANCHESTER
1824

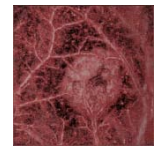
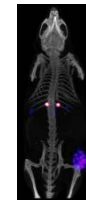
The University of Manchester

Safety Hub

Centre for Advanced Biomedical Imaging



Imaging



UKRMP Safety and Efficacy Hub



UK REGENERATIVE
MEDICINE PLATFORM

- Key initial objective is to establish image analysis and processing protocols to quantitatively measure cellular bio-distribution with the different modalities.

