

## ***Monash Biomedical Imaging***

Monash University is currently undertaking a \$15 million investment to develop a new biomedical imaging facility and radiobiology preclinical research program at Clayton, Melbourne. Monash Biomedical Imaging (MBI) at 770 Blackburn Road, Clayton is housed in a 5000m<sup>2</sup> building with dedicated space for imaging research infrastructure. Monash has entered into a strategic R&D alliance with Siemens Australia and recently procured advanced human MRI scanning and preclinical PET scanning equipment from Siemens. Monash has also developed an R&D collaboration with Agilent Technologies, which is one of the world's leading advanced biotechnology companies and provider of preclinical MRI scanning equipment.

The MBI facilities are being co-located with the Imaging and Medical Beamline (IMBL) that is currently under construction at the Australian Synchrotron. The joint MBI-IMBL facilities will provide internationally unique research opportunities for synchrotron and biomedical researchers from Australia and overseas. This will be the only integrated synchrotron imaging and multi-modality (MRI/PET/SPECT) biomedical imaging research facility worldwide.

Monash University initiated the Victorian Biomedical Imaging Capability (VBIC) that was recently funded by the Victorian State Government under the Victorian Science Agenda program. The VBIC coordinated network of capabilities and research capacity supports Victorian universities and medical institutes, and involves a total investment of \$25 million by the Victorian State Government, Monash University, and the partner organisations.

### **Research Themes**

The MBI facilities will support a broad range of research disciplines covering the neurosciences, respiratory medicine, cardiovascular and cancer research. These include:

- Cognitive Neuroscience
- Clinical Neurosciences including neurodegenerative MRI biomarkers in HD, FRDA, AD;
- Neuropsychiatry including major depression;
- Animal Models of Neurological Diseases including mechanisms of disease in HD models;
- MR contrast agent development;
- Respiratory Medicine including chronic obstructive airways & lung disease; and
- Cancer research including radiation biology models and integrated radiation therapy and imaging.

### **MBI Operational Schedule**

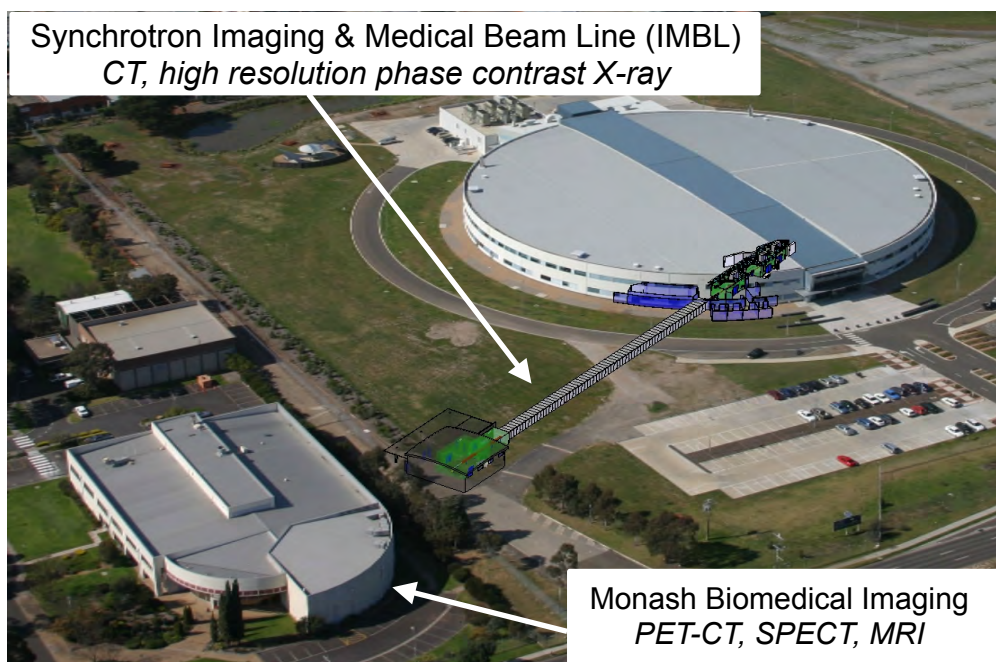
The current status of the building and equipment installation at Monash Biomedical Imaging is as follows:

- the building refurbishment will be undertaken from June to December, 2011;
- a human 3T MR scanner will be installed in November and available from January 2012;
- a small animal PET-SPECT-CT scanner will be installed in November and available from February, 2012;
- a small animal 9.4T MR scanner will be installed in January and available from March 2012;
- a small animal PET-CT scanner will be installed at the Alfred Medical Research and Education Precinct (AMREP) in August 2011; and
- a small animal fluorescence (FLECT-CT) scanner will be installed at the Monash Institute for Pharmaceutical Sciences (MIPS) in September 2011.

## **MBI Location**

Monash Biomedical Imaging is a Monash University research platform with nodes located at Clayton, AMREP and Parkville.

Figure 1. The co-located Monash Biomedical Imaging and Australian Synchrotron Imaging and Medical Beam Line facilities on Blackburn Rd, Clayton will provide internationally unique research opportunities for synchrotron and biomedical researchers from Australia and overseas.



## **MBI Director**

Gary Egan is an NHMRC Principal Research Fellow and the Professor and Director of Monash Biomedical Imaging, a research platform that encompasses the biomedical imaging research facilities currently being established at Monash University. He has published over 150 papers and over 250 abstracts in peer reviewed journals. He undertakes high resolution structural and functional brain mapping research and clinical neuroimaging research in Multiple Sclerosis and Huntington's disease. He is also the lead investigator of the Victorian Biomedical Imaging Capability and the Deputy Director of the Australian National Imaging Facility.

Further information can be obtained by contacting Gary Egan.

Monash Biomedical Imaging  
770 Blackburn Rd  
Clayton, 3800  
Tel: +613 99029750  
E: [gary.egan@monash.edu](mailto:gary.egan@monash.edu)