TRINITY COLLEGE
Institute of Neuroscience

from molecules to mind

The new landscape of neuroscience in Ireland

The new **Trinity College Institute of Neuroscience (TCIN)**, funded through PRTLI with almost 3,500m^2 of research space will open in October 2004. This is one of the few such centres in the world to be established from the start with a truly interdisciplinary programme where world-class scientists from such fields as psychology, psychiatry, physiology, genetics, biochemistry, pharmacology, microbiology, neurology and endocrinology collaborate. Investigators at this Institute are focused on the challenges facing science and medicine in researching the brain in health and in neurological, psychiatric and neurodegenerative disease.

For further information contact Dr Maria Fitzgibbon, Associate Director, TCIN
email: maria.fitzgibbon@tcd.ie or visit www.trinityneuroscience.com

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The ***Dublin Molecular Medicine Centre*** is a joint venture partnership between the University of Dublin, Trinity College (TCD) and University College Dublin (UCD). The DMMC was established by funding from the Higher Education Authority (HEA) through its *Programme for Research in Third Level Institutions* (PRTLI). This grant has funded investigations into Cancer, Vascular Biology, Neuroscience, Inflammation and Infectious Disease and the creation of modern research facilities across the city.

Some of the research activities of the DMMC are being integrated with those at the Royal College of Surgeons in Ireland (RCSI) through the PRTLI-funded *Programme for Human Genomics.* This programme aims to build the necessary infrastructure to create a centre of excellence in molecular medicine in Dublin. Hence the DMMC creates a critical mass in biomedical science that combines the strengths and resources of the *Institute of Molecular Medicine* (at TCD), the *Conway Institute of Biomolecular & Biomedical Research* (at UCD) and the *Institute of Biopharmaceutical Sciences* (at RCSI).

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DUBLIN MOLECULAR MEDICINE CENTRE
DMMC

Trinity College Institute of Neuroscience
&
The Dublin Molecular Medicine Centre

present a symposium on

BIOMEDICAL IMAGING

from molecular to whole body imaging
on

Wednesday 9th June 2004

08:45 – 17:15

at

Joly Lecture Theatre, Hamilton Building
Trinity College Dublin

www.trinityneuroscience.com

www.dmmc.ie

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BIOMEDICAL IMAGING | *from molecular to whole body*

Programme Details

DMMC

8:45 – 9:00 **Registration**

SESSION I	NEUROIMAGING
9:00 - 9:20	Drug Addiction as an Executive Dysfunction: Evidence from Cognitive Neuroimaging Studies *Dr Hugh Garavan, Trinity College Institute of Neuroscience*
9:20 - 9:50	Neural Bases of Emotional Influences on Decision-making *Prof Alan Sanfrey, University of Arizona, USA*
9:50 -10.10	Quantitative Automated & Semi-automated Neuro-Anatomy *Dr Mary Fitzsimons Beaumont Hospital & RCSI*
10.10 - 10.40	Measuring Reward Process in Attention Deficit Hyperactivity Disorder *Dr Anouk Scheres, New York University, USA*

10:40 – 11:00 **Coffee**

SESSION II	APPLIED IMAGING
11:00 –11.20	Morphometrics of the Human Face *Dr Robin Hennessy, Dept of Clinical Pharmacology, RCSI*
11.20 - 11.50	Rapid Whole Body Magnetic Resonance Imaging *Dr James Meaney, Consultant Radiologist, St James Hospital*
11:50 - 12.20	Computer Aided Detection and Diagnostics for Medical Imaging *Prof Paul Whelan, Dept of Electronic Engineering, DCU*
12.20 - 12.40	Development of Synthetic Molecules for Imaging and Sensing *Dr Thori Gunnlaugsson, Dept of Chemistry, TCD*

12:40 – 1:40 **Lunch**

SESSION III	MOLECULAR & CELLULAR IMAGING
1:40 - 2:00	Optical Projection Tomography *Dr Paula Murphy, Dept of Zoology, TCD*
2:00 – 2:20	Single Cell Imaging *Dr Markus Rehm, Dept of Physiology, RCSI*
2:20 - 2:40	High Content Cell Screening using Cellomics Technology *Dr Yuri Volkov, Institute of Molecular Medicine, TCD*
2:40 – 3:00	Non-Invasive Fluorescent Imaging of Mice *Dr Judith Harmey, Dept of Surgery, RCSI*

03:00 – 03:15 **Coffee**

SESSION IV	High-Resolution MRI - Current & Potential Research
3:15 – 4:15	Neurons - from Mouse to Man *Dr Fernando Zelaya, Institute of Psychiatry, London* *Dr Mike Modo, Institute of Psychiatry, London*
4:15 – 4:25	Imaging Facilities at Trinity College Institute of Neuroscience *Dr Maria Fitzgibbon, Trinity College Institute of Neuroscience*
4:25 – 5:15	<u>Short Research Updates (5 –10 minutes)</u> Animal MRI in Analysis of Gene Therapy of the Nervous System *Prof Greg Atkins, TCD & Prof Brian Sheahan, UCD* Potential Uses of Animal MRI in Neurodegenerative Research *Dr Francesca Brett & Dr Hugh Staunton, Beaumont Hospital* Magnetic Nanoparticles and Magnetic Fluids for MRI *Ms Serena Corr & Dr Yuri Gun'ko, Department of Chemistry, TCD* Novel Methods of Brain Surface Area Measures *Ms Lisa Ronan, Beaumont Hospital*

Round Table Discussion : All Participants