Neuroimaging: Clinical and Research applications
with a focus on Dementia and Alzheimer’s Disease

A study day for early stage researchers, healthcare professionals and students

Date: Wednesday 11th September 2013

Time: 8:45-17:00

Location: Room G06 in Brookfield Health Science, University College Cork, Cork

Overview
Hosted by NeuroSKILL, this study day is targeted at medical doctors, radiographers, researchers (PhD students, Post-Doctoral Fellows) and other healthcare professionals and students interested in the area of neuroimaging in dementia and Alzheimer’s Disease.

The programme brings together expert clinicians and researchers in Alzheimer’s Disease from across Ireland and Wales. The format is designed to update and inform participants of the latest developments and best practice in this evolving area.

Topics include: an overview of Alzheimer’s Disease, cognitive testing for diagnosis of Alzheimer’s disease, introduction to the various neuroimaging modalities and their interpretation, and a review of neuroimaging research in normal ageing and dementia.

Refreshments and lunch included.

Learning Outcomes:
Following active participation in these sessions the attendee will be able to demonstrate:
- an understanding of MRI in terms of physical principles;
- knowledge about the current uses of neuroimaging in diagnostic process of Alzheimer’s disease;
- an understanding of the role of advanced MR techniques such as DTI, fMRI and MRS in increasing our understanding of Alzheimer’s disease;
- an understanding of the future techniques to be used in diagnosis;
- insight into Alzheimer’s Disease and dementia in terms of the disease process, prevalence and living with disease;
- latest developments in cognitive testing for diagnosis of Alzheimer’s disease.
8.45 am  Registration – Coffee/Tea

9.15 am  Welcome and introduction to the NeuroSKILL project
         Arun Bokde, SFI Stokes Assistant Professor in Biostatistical Imaging
         School of Medicine & Institute of Neuroscience, Trinity College Dublin

9.20 am  MRI: technology / basic principles
         Jonathan McNulty, Head of Teaching & Learning Diagnostic Imaging Programmes
         School of Medicine & Medical Science, University College Dublin

10.10 am Functional information from fMRI & Chemistry
         Paul Mullins, Director, Senior MRI Physicist,
         School of Psychology, Bangor University, Wales

11.00 am Coffee break

11.15 am Dementia: current research and diagnosis
         Catherine Quinn, Post-Doctoral Research Officer
         School of Psychology, Bangor University, Wales

11.45 am PLENARY SPEAKER
         What’s new in Cognitive Assessment?
         William Molloy, Professor of Medicine and Chair of the Centre of Gerontology and Rehabilitation
         School of Medicine, University College Cork

12.30 am Lunch

1.30 pm  Neurochemistry in dementia
         Karolina Rusiak, Research Project Support Officer
         School of Psychology, Bangor University, Wales

2.00 pm  Current Amyloid/fMRI developments in Alzheimer’s Disease
         Arun Bokde, SFI Stokes Assistant Professor in Biostatistical Imaging
         School of Medicine & Institute of Neuroscience, Trinity College Dublin

2.45 pm  Coffee break

3.00 pm  Clinical Application of Diffusion Imaging in Neurodegeneration
         Elizabeth Kehoe, Post-Doctoral Fellow
         School of Medicine & Institute of Neuroscience, Trinity College Dublin

3.45 pm  Discussion on brain images/Group work
         Various members from NeuroSKILL

4.15 pm  Survey Results on use of MRI by Clinicians
         Aurelia Ciblis, Post-Doctoral Research Fellow
         School of Medicine & Medical Science, University College Dublin

4.45 pm  Panel Discussion

5.00 pm  Close
NeuroSKILL: Increasing awareness, education and training in dementia through neuroimaging in the Ireland Wales region

This EU-funded NeuroSKILL project represents a collaboration between the School of Medicine in Trinity College Dublin, the School of Medicine and Medical Science in University College Dublin, and the School of Psychology in Bangor University which will involve the development of training programmes in neuroimaging in dementia, technology transfer, and translation of technical neuroimaging information into a more accessible and useful format.

NeuroSKILL is a €1.7 million project funded under EU ERDF INTERREG 4A Ireland Wales Scheme. Set within the life sciences sector of the Welsh framework for economic renewal and the Irish SMART economy, NeuroSKILL will link research in medical technology to service delivery leading to a responsive partnership between academia, the third sector and private enterprise.

NeuroSKILL aims to broaden and deepen the skills base within the regions with targeted training interventions and novel information delivery technology.

In Ireland 44,000 are living with dementia along with a further 12,000 in North Wales and with an ageing population this trend will rise. Individuals and institutions supporting the needs of older people need more support to recognise those currently at risk and to prepare for the future. There is an increasing need for training amongst specialist staff which NeuroSKILL, through collaboration between academia, the third sector and private enterprise, will meet in an innovative way based on targeted training.

NeuroSKILL is a bold demonstration of the application of academic research to the future needs of business.