INTERNATIONAL SCHOOL ON MAGNETIC RESONANCE AND BRAIN FUNCTION

3rd Course: BRAIN FUNCTION RESEARCH BY MAGNETIC RESONANCE, ELECTROPHYSIOLOGY AND MOLECULAR PROBES

ERICE-SICILY: 23 - 29 MAY 2005

Sponsored by the: • Italian Ministry of Education, University and Scientific Research • Sicilian Regional Government

TOPICS AND LECTURERS

• R.W. BOWTELL, University of Nottingham, UK
• R. FRACKOWIAK, Institute of Child Health, London, UK
• J.C. GORE, Vanderbilt University, Nashville, TN, USA
• G.E. HAGBERG, Fondazione Santa Lucia, Rome, I
• P.G. HENRY, University of Minnesota, Minneapolis, MN, USA
• A. JASANOFF, MIT, Cambridge, MA, USA
• L. LEMIEUX, University College London, UK
• N.K. LOGOTHETIS, MPI für Biologische Kybernetik, Tübingen, D
• V. MAC KAY, University of British Columbia, Vancouver, CND
• E. MACALUSO, Fondazione Santa Lucia, Rome, I
• R.V. MULKERN, Children’s Hospital, Boston, MA, USA
• A. PINES, University of California, Berkeley, CA, USA
• P.F. VAN DE MOORTELE, University of Minnesota, Minneapolis, MN, USA
• A. VILLRINGER, Charité, Humboldt University, Berlin, D
• W. WADMAN, University of Amsterdam, NL
• W.S. WARREN, Princeton University, NJ, USA
• MRI and EEG-Combination
• Neural events underlying the BOLD signal: combined electrophysiology and fMRI
• MRI of neurocurrents
• Feasibility of direct detection of neuronal currents using MRI
• Diffusion tensor imaging and brain physiology
• Anatomical and Functional architecture of the brain as seen with diffusion tensor MRI
• fMRI studies on casualty in the human brain
• Magnetic resonance imaging of human brain function
• Dynamics of brain function by fMRI
• Ultra-high field functional imaging and spectroscopy
• Fast spectroscopic imaging methods
• Conventional and Intermolecular Multiple-Quantum Contrast
• Imaging studies of plasticity and recovery after brain injury
• Hypothesis and data driven analysis of functional MRI series
• NMR/MRI based biosensors for molecular imaging

PURPOSE OF THE COURSE

Magnetic Resonance in the last twenty years has generated a wide revolution in biomedical research and in medical diagnostics. More recently the “in vivo” studies of the human brain were extended by new original ways of observing the areas of the human cortex activated by stimuli. The enormous interest in expanding the investigation of the human brain were extended by new original ways of observing the areas of the brain function by his son Enea, on the coast below Erice. Homer (~1000 B.C.), Theocritus (~300 B.C.), and others have celebrated this magnificent spot in Sicily in their poems. During seven centuries (XIII-XIX) the town of Erice was under the leadership of a local oligarchy, whose wisdom assured a long period of cultural development and economic prosperity which in turn gave rise to the many churches, monasteries and private palaces which you see today.

In Erice you can admire the Castle of Venus, the Cyclopean Walls (~800 B.C.) and the Gothic Cathedral (~1300 A.D.). Erice is at present a mixture of ancient and medieval architecture. Other masterpieces of ancient civilization are to be found in the neighbourhood: the majora and the small chapel (~800 B.C.) in the north; the Neolithic and paleolithic vestiges are still visible: the grotofames of Favignana, the carvings and murals of Levanzo.

Splendid beaches are to be found at San Vito Lo Capo, Scopello, and Cornino, and a wild and rocky coast around Monte Cofano: all at less than one hour’s drive from Erice.

More information about the other activities of the “Ettore Majorana Centre” can be found on the WWW at the following address:
http://www.comem.infn.it

B. MARAVIGLIA
DIRECTOR OF THE SCHOOL

A. ZICHICI
EMFSC PRESIDENT AND DIRECTOR OF THE CENTRE

More information about the other activities of the «Ettore Majorana Centre» can be found on the WWW at the following address:
http://centrofermi-nmr.phys.uniroma1.it/

PLEASE NOTE

Applications should be sent by April 30

Applications should be sent by April 30

More information about the other activities of the «Ettore Majorana Centre» can be found on the WWW at the following address:
http://centrofermi-nmr.phys.uniroma1.it/