WHEN AND WHERE

The workshop will take place on:

Friday, 23rd March 2012, from 13.50 to 19.00

Policlinico G. B. Rossi – Aula 1

Piazzale L. A. Scuro, Verona

http://www.medicina.univr.it

How to get there

- **By car:**

A22 motorway: take EXIT VERONA NORD, then take "Tangenziale Sud" (direction: Vicenza), take EXIT and follow the "B.go Roma" signs.
A4 motorway: take EXIT VERONA SUD and follow the "B. go Roma" signs.

- **By plane: from Valerio Catullo Airport**

By car: take "Tangenziale Sud" (direction: Vicenza) to Verona, take EXIT N°4 — BORGO ROMA then follow the "B.go Roma" signs.
By taxi: taxis of are immediately available for arriving passengers in the area in front of the airport (or can be called by radiotaxi).
By bus: you can take the shuttle bus (Aerobus, 4,50 €, every 20 min) from the airport to Verona Porta Nuova station, and then use public transport or taxi.

- **By train:**

By bus: from **Verona Porta Nuova station**, take bus n°22, n°21 from sidewalk E in front of the station and get off at Piazzale L. A. Scuro stop, just outside the hospital.
By taxi: Policlinico G. B. Rossi is only a few minutes from railway station by taxi.

GENERAL INFORMATIONS

Scientific Secretariat

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Registration

Onsite registration fee: € 30
Preregistration requested.

AZIENDA OSPEDALIERA
UNIVERSITARIA INTEGRATA
VERONA

University of Verona
Department of Neurological, Neuropsychological,
Morphological and Movement Sciences
Neurology Unit, Policlinico G.B. Rossi, Verona

Workshop on

Multimodal Brain Imaging in Epilepsy

Friday, 23rd March 2012
from 13.50 to 19.00

Coordinator:

Prof. Paolo Manganotti

WORKSHOP ON MULTIMODAL BRAIN IMAGING IN EPILEPSY

SCIENTIFIC PROGRAMME

OPENING ADDRESS 13.50 – 14.00

Prof. Antonio Fiaschi

Chairman: *Prof. Paolo Manganotti*

IMAGING EPILEPSY WITH HIGH-DENSITY EEG 14.00 – 14.40

Christoph M. Michel, PhD

Functional Brain Mapping Laboratory Dept. of Fundamental Neurosciences, University Medical School Geneva

INTERICTAL EPILEPTIC DISCHARGES: CONFRONTING MODALITIES 15.00 – 15.40

Christian G. Benar, Eng PhD

UMR 1106 INSERM, Institut des Neurosciences des Systèmes –INS. Faculté de Médecine La Timone, Marseille

Coffee break 16.00 – 16.15

INVESTIGATING INTERICTAL AND ICTAL EPILEPTIC NETWORKS USING COMBINED EEG AND fMRI 16.15 – 16.50

Louis Lemieux, PhD, CSci, MInstP

Centre for Neuroimaging Techniques, Department of Clinical and Experimental Epilepsy, UCL Institute of Neurology Queen Square, London

MODELLING FUNCTIONAL CONNECTIVITY AND THE LINK BETWEEN EEG AND fMRI IN EPILEPSY 17.10 – 17.30

Patrícia Figueiredo, PhD

Assistant Professor, Institute for Systems and Robotics, Departmento Bioengineering, Lisboa

EEG AND fMRI IN THE EPILEPSY UNIT: MORE THAN A RESEARCH TOOL 17.45 – 18.20

Eliane Kobayashi, MD, PhD

Assistant Professor, Department of Neurology and Neurosurgery, Faculty of Medicine, Montreal Neurological Institute and McGill University 3801 University Street Montreal, Quebec

CONCLUSIONS AND SUMMARY 18.40 – 19.00

WORKSHOP ON MULTIMODAL BRAIN IMAGING IN EPILEPSY

ABSTRACT

The recent introduction of brain imaging techniques, such as functional MRI (fMRI)-EEG coregistration and electrical source imaging (ESI), has improved the research and process of evaluation of epileptic disorders. fMRI is performed using blood oxygenation level dependent (BOLD) contrast imaging based on the magnetic properties of haemoglobin. In recent years, EEG-fMRI coregistration has been applied both to the study of focal epilepsy. The possibility of observing BOLD activity modifications related to the paroxysmal discharges, regardless of their morphology, represents an innovative advantage of this technique in epilepsy. ESI has proven its utility in several studies, mainly on patients with lesional epilepsy. The high spatial sampling possible with the new techniques allows a reliable ESI analysis with particular attention to basal brain areas concerned with temporal lobe discharges. A new frontier is the combination of ESI and fMRI not only in the study of epilepsy.

The possibility to combine new MRI methods and new neurophysiological techniques is a field of innovation in neuroscience in the study of brain function but requires new high level skillfulness and the knowledge of pitfalls . This multi-modality approach in the investigation of epilepsy has important and operative application in the clinical management. The leaders in this field of research are present in this short workshop who try to offer a summary of the matter and will try to be open to the discussion.