

**Workshop on Biomedical Instrumentation and Related Engineering
and Physical Sciences**
Saturday September 13th, 2014

Organizers: G. Fountos and I. Valais

PROGRAMME

14:00 – 14:10 **Welcome Speech**

- I. Kandarakis, Head of Biomedical Engineering Department, T.E.I. of Athens, Greece

Round Tables (Hours)

Round Table 1 (1 hour). Medical Imaging

Chairmen: *I. Valais and N. Kalyvas, T.E.I. of Athens, Greece*

14:15 – 14:30 **Focal and diffuse liver disease quantification by means of ultrasound and magnetic resonance imaging**

S. Tsantis

Department of Biomedical Engineering, TEI of Athens, Greece

14:30 – 14:40 **Infrafrontier: The development of a PET/CT imaging lab for small animals**

A. Gaitanis

Department of Biomedical Engineering, BRFAA, Greece

14:40 – 14:50 **CMOS technology and X-ray Imaging**

C. Michail

Department of Biomedical Engineering, TEI of Athens, Greece

14:50 – 15:00 **Novel Nuclear Medicine Imaging Detectors**

S. David

Department of Biomedical Engineering, TEI of Athens, Greece

15:00 – 15:10 **Nanophosphors**

P. Liaparinos

Department of Biomedical Engineering, TEI of Athens, Greece

Round Table 2 (1 hour). In vivo imaging techniques for the assessment of drug delivery across the Blood Brain Barrier

Chairmen: *G. Loudos and E. Ventouras, T.E.I. of Athens, Greece*

15:15 – 15:35 Nanocarriers as drug delivery vehicles for drug delivery across BBB

E. Efthimiadou

Institute for Advanced Materials, Physicochemical processes, Nanotechnology & Microsystems, NCSR "Demokritos" Athens, Greece

15:35 – 15:55 Radiolabelling of nanocarriers for in vivo imaging using nuclear medicine techniques

E. Fragogeorgi

Department of Biomedical Engineering, Technological Educational Institute of Athens, Greece

15:55 – 16:15 Molecular imaging as a tool to image drug delivery across the Blood Brain Barrier: OnconanoBBB project

G. Loudos

Department of Biomedical Engineering, Technological Educational Institute of Athens, Greece

Coffee Break

Round Table 3 (1 hour). Biomedical Data Processing

Chairmen: *P. Asvestas, D. Glotsos and I. Kalatzis, T.E.I. of Athens, Greece*

16:30 – 16:45 Pattern recognition techniques in biological data analysis

S. Kostopoulos

Department of Biomedical Engineering, TEI of Athens, Greece

16:45 – 17:00 Computer Vision techniques on micro-CT

V. Korfiatis

School of Electrical and Computer Engineering, National Technical University of Athens, Greece

17:00 – 17:15 Facilitating Pattern Recognition Systems Design on Parallel GPU Architectures for Breast Lesions Characterization Employing Multimodality Images

K. Sidiropoulos

School of Engineering and Design, Brunel University West London, Uxbridge, UK

17:15 – 17:30 Microscopy imaging in life sciences

D. Glotsos

Department of Biomedical Engineering, TEI of Athens, Greece

Round Table 4 (1 hour). Linking Large - Scale Innovation to Patient – Centered Point of Care Testing

Chairpersons: *M. Kallergi, T.E.I. of Athens, Greece*

17:30 – 17:45 Novel Breast-Imaging Technologies

M. Kallergi

Department of Biomedical Engineering, TEI of Athens, Greece

17:45 – 18:00 Developing alternative visualization methods: A status report

A. Tzavaras

Department of Biomedical Engineering, TEI of Athens, Greece

18:00 – 18:15 The *big* and the *small*: There is room for all

B. Spyropoulos

Department of Biomedical Engineering, TEI of Athens, Greece