



# „ADVANCES IN TELEMEDICINE APPLICATIONS”

## SCIENTIFIC PROGRAMME

Friday, 17 June, 2011

9:00 – 9:15 Opening

### Session I. Telemedicine and eHealth Outcomes

Chairpersons: Piotr Murawski, Tomasz Berdyga, Lech Śliwa

9:15 - 9:30 **System of medical teleconsultations organized by the Military Institute of Medicine to support the Polish peacekeeping and peace enforcement missions.**

**<sup>1</sup>Grzegorz Gielerek, <sup>2</sup>Piotr Murawski**

<sup>1</sup>Military Institute of Medicine, <sup>2</sup>Department of Information Technology, MIM, Warsaw, Poland

9:30 - 9:55 **The telepathology network in Castilla-La Mancha**

**Marcial Garcia Rojo**

Pathology Department, Hospital General de Ciudad Real, Ciudad Real, Spain

9:55 – 10:10 **Telemedicine in audiology and otorhinolaryngology** (*videolecture*)

**Henryk Skarżyński**

Institute of Physiology and Pathology of Hearing, Warsaw, Poland

10:10 -10:25 **"Telefitting": System for remote fitting of speech processors and telerehabilitation of cochlear implant patients** (*videolecture*)

**Arkadiusz Wąsowski, Henryk Skarżyński, Artur Lorens, Anita Obrycka, Adam Walkowiak**

Institute of Physiology and Pathology of Hearing, Warsaw, Poland

10:25-10:40 **"Home Rehabilitation Clinic": Multimedia system for telerehabilitation of hearing impaired Children** (*videolecture*)

**Agnieszka Pankowska, Joanna Solnica, Barbara Waśkiewicz, Piotr H. Skarżyński**

Institute of Physiology and Pathology of Hearing, Warsaw, Poland

10:40-10:55 **Project “TeleMedNet” – the innovation for telemedicine**

**Piotr Murawski**

Department of Information Technology, Military Institute of Medicine, Warsaw, Poland

10:55 -11:10 **System „OLYMPUS labSens” - modern workstation of a pathologist.  
Research system „OLYMPUS BX63” – fully automated acquisition, archiving and analysis of the microscopic slide ”**

**Nikodem Szymański.**

Olympus- Europe.

11:10-11:25 **Coffee break (demonstration of the Olympus systems)**

## **Session II. Telecardiology and Telehealth Outcomes**

**Chairpersons: Ryszard Piotrowicz, Andrzej Chciałowski, Wojciech Kozłowski**

11:25 -11:50 **Telemedicine - technological gadget or future of medicine? Case study:  
Teleconsultation Center 'TeleInterMed'elecardiology**

**Tomasz Berdyga**

National Institute of Cardiology, Warsaw-Anin, Poland

11:50-12:15 **Home Telemonitoring in Heart Failure Rehabilitation**

**Ryszard Piotrowicz**

Department of Cardiac Rehabilitation and Noninvasive Electrocardiology, National Institute of Cardiology, Warsaw - Anin, Poland

12:15 -12:35 **Telemonitoring ECG - a new diagnostic approach**

**Monika Grzęda, Jarosław Kowal**

Ward of Noninvasive Cardiology and Telemedicine Department of Cardiology and Internal Diseases, Military Institute of Medicine

12:35 -12:45 **Mobile phone applications in telemedicine**

**Jan Radwański, Paweł Sowiński**

PRO-PLUS, Warsaw, Poland

12:45-13:00 **Telepathology and teleradiology - similarity of approaches and possibility to use the same infrastructure.**

**<sup>1,2</sup> Vytenis Punys**

<sup>1</sup>Multimedia Engineering Dept., Kaunas University of Technology, Kaunas,

<sup>2</sup>IT Services Dept.,Hospital of Lithuanian University for Health Sciences, Kaunas, Lithuania

13:00-13:15 **Technological standards and development in teleradiology**

**Adam Łukasiewicz**

Department of Radiology, Medical University of Białystok, Poland

13:15-13:25 **Software for the medical pseudoimages analysis based on thermography**

**Piotr Murawski**

Department of Information Technology, Military Institute of Medicine, Warsaw, Poland

13:25-13:40 **Recent achievements in teleorthopaedics**

**Emil Przepiórski**

Department of Rheumaorthopaedics, Institute of Rheumatology, Warsaw, Poland

13:40-14:40

**Lunch**

### **Session III. Telepathology and Image Analysis (part. I)**

**Chairpersons:** **Marcial Garcia Rojo** (Spain), **Vytenis Punys** (Lithuania), **Janina Słodkowska** (Poland)

14:40–15:00 **Immunohistochemistry and Digital Pathology in therapeutic, personalized decisions**

**<sup>1</sup>Janina Słodkowska, <sup>2</sup>Marcial Garcia Rojo, <sup>1</sup>Wojciech Kozłowski**

<sup>1</sup>Department of Pathomorphology, Military Institute of Medicine, Warsaw, Poland;

<sup>2</sup>Pathology Department, Hospital General de Ciudad Real, Ciudad Real, Spain

15:00–15:20 **Correction method used for the archival immunohistochemical images to improve the results of image segmentation**

**<sup>1</sup>Anna Korzynska, <sup>1</sup>Urszula Neuman, <sup>2</sup>Carlos Lopez, <sup>2</sup>Marylene Lejeun, <sup>3</sup>Ramon Bosch**

<sup>1</sup>Nalecz Institute of Biocybernetics and Biomedical Engineering, Polish Academy of Sciences, Warsaw, Poland; <sup>2</sup>Molecular Biology and Research Section and <sup>3</sup>Department of Pathology, Hospital de Tortosa Verge de la Cinta, Tarragona, Spain

15:20–15:35 **Computer-assisted morphometric analysis of the intercellular spaces identified in a biopsy of Gastroesophageal Reflux Disease patients**

**<sup>1,2</sup>Tomasz Markiewicz, <sup>2</sup>Wojciech Kozłowski, <sup>2</sup>Janina Słodkowska, <sup>2</sup>Andrzej Dąbek, <sup>2</sup>Marzena Cichowicz**

<sup>1</sup>Warsaw University of Technology, Warsaw, Poland;

<sup>2</sup>Department of Pathomorphology, Military Institute of Medicine, Warsaw, Poland

15:35-15:55 **Computerized image analysis in the clinical and pathomorphology evaluation - five years studies of the Pathomorphology Department of MIM**

**<sup>1</sup>Wojciech Kozłowski, <sup>1</sup>Janina Słodkowska, <sup>1,2</sup>Tomasz Markiewicz, <sup>1</sup>Jan Patera, <sup>1</sup>Bartłomiej Grala**

<sup>1</sup>Department of Pathomorphology, MIM; <sup>2</sup>University of Technology, Warsaw, Poland.

15:55-16:10 **Automatic image analysis of the colon biopsy supporting the medical diagnosis of the Inflammatory Bowel Disease**

**<sup>1</sup>Michał Kruk, <sup>2,3</sup>Stanisław Osowski, <sup>4</sup>Robert Koktysz**

16:10 – 16:25

**Coffee break**

### **Session III. Telepathology and Image Analysis (part. II)**

**Chairpersons:** Touradj Ebrahimi (Switzerland), Anna Korzyńska (Poland), Tomasz Markiewicz (Poland),

16:25–16:50 **Recent advances in medical image compression**

**Touradj Ebrahimi**

<sup>1</sup>Multimedia Signal Processing Group, Ecole Polytechnique Federale de Lausanne,  
Lausanne, Switzerland

16:50–17:05 **Remote controlled microscopy in the routine pathomorphological diagnostics**

**<sup>1</sup>Adam Pankowski, <sup>2</sup>Juliusz Pankowski**

<sup>1</sup>SilverSoft , Szczecin, <sup>2</sup>Department of Pathology, Pulmonary Hospital, Zakopane, Poland

17:05–17:15 **Texture analysis of the kidney tumours CT images**

**<sup>1,3</sup>Tomasz Markiewicz, <sup>2</sup>Danuta Waśniewska, <sup>2</sup>Lech Waśniewski, <sup>2</sup>Romana Bogusławska-Walecka,  
<sup>1</sup>Wojciech Kozłowski**

<sup>1</sup>Warsaw University of Technology, Warsaw; <sup>2</sup>Department of Radiology and <sup>3</sup>Department  
Pathomorphology, Military Institute of Medicine, Warsaw, Poland

17:15–17:20 *Closing remarks*