PROGRAM
OF THE SEMINAR
Wednesday, March 26th, 2014

15:00 – 15:30  OPENING OF THE SEMINAR

WELCOME ADDRESSES

Prof. Marek Darowski, Interim Director of the International Centre of Biocybernetics Polish Academy of Sciences (Poland)

Prof. Ewaryst Tkacz, Institute of Theoretical and Applied Informatics, Polish Academy of Sciences, Gliwice (Poland); Silesian University of Technology, Faculty of Biomedical Engineering, Zabrze (Poland)

15:30 – 17:30  Session I. BRUXISM - A NEW LOOK AT AN OLD PHENOMENON

Chairman: Prof. Sandro Palla

15:30 – 16:00  “Bruxism as a disease of civilization - the genesis of the project”
Prof. Ewaryst Tkacz, Institute of Theoretical and Applied Informatics, Polish Academy of Sciences, Gliwice (Poland); Silesian University of Technology, Faculty of Biomedical Engineering, Zabrze (Poland)

16:00 – 16:45  “Wake-time bruxism – The great unknown”
Prof. Sandro Palla, University of Zurich, Center of Dental & Oral Medicine, Zurich (Switzerland)

16:45 – 17:30  “Influence of bruxism on a headache”
Prof. Stefan Baron, Medical University of Silesia, Department of Chewing Organ Dysfunctions and Orthodontics, Zabrze (Poland)

Thursday, March 27th, 2014

9:15 – 13:00  Session II. BRUXISM - A NEW LOOK AT AN OLD PHENOMENON

Chairman: Prof. Sandro Palla

9:15 – 10:00  “Mechanisms of jaw motor activation during sleep based on human and animal studies”
Prof. Takaafumi Kato, Osaka University Graduate School of Dentistry, Department of Oral Anatomy and Neurobiology, Osaka University Medical Hospital, Sleep Medicine Center, Osaka (Japan)
10:00 – 10:45  “Bruxism and occlusion”  
Prof. Stefan Baron, Medical University of Silesia, Department of Chewing Organ Dysfunctions and Orthodontics, Zabrze (Poland)

10:45 – 11:15  “Physiological changes in occlusion during childhood and adolescence”  
Prof. Agnieszka Pisulska-Otremba, Medical University of Silesia, Department of Chewing Organ Dysfunctions and Orthodontics, Zabrze (Poland)

11:15 – 11:30  Coffee Break

11:30 – 11:50  “CGRP plasma level changes in patients with temporomandibular disorders, treated with occlusal splints: a randomized clinical trial”  
Dr. Aleksandra Nitecka-Buchta, Dr. Bohdan Marek, Prof. Stefan Baron, Medical University of Silesia, Department of Chewing Organ Dysfunctions and Orthodontics, Zabrze (Poland)

11:50 – 13:00  Round Table discussion summarizing Session I and Session II

13:00 – 14:00 Lunch

14:00 – 17:00 Session III. A NEW DIAGNOSTIC APPROACHES

Chairman: Prof. Stefan Baron

14:00 – 14:20  “HRV analysis during sleep bruxism”  
Dr. Stanisław Pietraszek, Silesian University of Technology, Faculty of Automatic Control, Electronics and Computer Sciences, Institute of Electronics, Department of Medical Electronics, Gliwice (Poland)

14:20 – 14:40  “Bruxism episodes detection based on hybrid methods”  
Dr. Paweł Kostka¹, Prof. Ewaryst Tkacz¹², ¹Silesian University of Technology, Faculty of Biomedical Engineering, Department of Biosensors and Biomedical Signals Processing, Zabrze (Poland), ²Institute of Theoretical and Applied Informatics, Polish Academy of Sciences, Gliwice (Poland)
14:40 – 15:00 “Integration of multimodal image data for the purposes of supporting the diagnosis of the stomatognathic system”

Dr. Agnieszka Tomaka¹, Dr. Michał Tarnawski²,
¹Institute of Theoretical and Applied Informatics, Polish Academy of Sciences, Gliwice (Poland), ²Family Stomatology – Barbara i Michał Tarnawscy, Katowice (Poland),

15:00 – 15:20 “Acquisition of mandible movement with a 3D scanner”

Dr. Michał Tarnawski¹, Dr. Agnieszka Tomaka², ¹Family Stomatology – Barbara i Michał Tarnawscy, Katowice (Poland), ²Institute of Theoretical and Applied Informatics, Polish Academy of Sciences, Gliwice (Poland)

15:20 – 15:40 Coffee break

15:40 – 17:00 Round Table discussion summarizing Session III

Friday, March 28th, 2014

9:20 – 13:00 Session IV. A NEW FRONTIERS OF BRUXISM ANALYSIS METHODOLOGY

Chairman: Prof. Ewaryst Tkacz

9:20 – 10:00 “Bruxism and genetics – a review of existing literature”

Prof. Ivo Provaznik¹, Prof. Ewaryst Tkacz¹²³,
¹Technical University of Brno, Faculty of Electrical Engineering, Institute of Biomedical Engineering, Brno (Czech Republic), ²Institute of Theoretical and Applied Informatics, Polish Academy of Sciences, Gliwice (Poland), ³Silesian University of Technology, Faculty of Biomedical Engineering, Zabrze (Poland)

10:00 – 10:20 “Techniques for processing and segmentation of spatial geometric models”

Dr. Krzysztof Skabek, Institute of Theoretical and Applied Informatics, Polish Academy of Sciences, Gliwice (Poland)

10:20 – 10:40 “Mathematical description of movement vs practical interpretations”

Dr. Leszek Luchowski, Institute of Theoretical and Applied Informatics, Polish Academy of Sciences, Gliwice (Poland)
10:40 – 11:00  “Assumptions for a software tool to support the diagnosis of the stomatognathic system: data collection, visualization of compound models and their motion”
Dr. Dariusz Pojda, Dr. Przemysław Kowalski,
Institute of Theoretical and Applied Informatics, Polish Academy of Sciences, Gliwice (Poland)

11:00 – 11:30  Coffee Break

11:30 – 13:00  Round Table discussion; Summarizing of the Seminar

13:00 – 14:00  Lunch