INTERNATIONAL SYMPOSIUM

BIOMATERIALS: CHALLENGES FOR THE 21st CENTURY

3rd September 2010, 9.00 -17.00 h
Hans-Georg-Waeber-Saal, Schottkystraße 10
School of Engineering (Tech. Fak.) Campus, Erlangen, Germany

9.00  Introduction
A. R. Boccaccini, Institute of Biomaterials, University of Erlangen-Nuremberg

9.10  21st Century Challenges for Biomaterials
L. L. Hench, University of Florida, USA

9.45  Investigating Cellular Behaviour in and on Biomaterials
V. Salih, Eastman Dental Institute, University College London, UK

10.15 – 10.45  Coffee Break

10.45  Novel Electrohydrodynamic Methods for Bubble and Capsule Preparation
M. J. Edirisinghe, Department of Mechanical Engineering, University College London, UK

11.10  Nanoscale-Structured TiO2 Layers for Biomedical Applications
P. Schmuki, S. Bauer, T. Dey, J. Park, K. von der Mark, B. Fabry, K.A. Schlegel
Institute for Surface Science and Corrosion, University of Erlangen-Nuremberg

11.25  Nanoindentation of Biomaterials and Cartilage
M. Göken, K. Durst, O. Franke
Institute of General Materials Properties, University of Erlangen-Nuremberg

11.40  Crystalline CVD-Diamond Coatings for Biomedical Applications
K. Bayerlein, S. Rosiwal, R. Singer
Institute of Science and Technology of Metals, University of Erlangen-Nuremberg

11.55  Advanced Transmission Electron Microscopy of Nanomaterials
E. Spiecker, M. Mackovic, G. Yang, B. Birajdar
Electron Microscopy Group, University of Erlangen-Nuremberg

12.10  Polyhydroxyalkanoates: their Production and Use in Biomedical Applications
I. Roy, School of Biosciences, University of Westminster, London, UK

12.35 – 14.00  Lunch

14.00  Biomacromolecule Adsorption on Polymeric Biomaterials Surfaces
K. Jandt, Institute of Materials Science and Technology, University of Jena

14.30  Cellular Bioceramics for Bone Regeneration
P. Greil, J. Will, A.-K. Maier
Institute for Glass and Ceramics, University of Erlangen-Nuremberg

14.45  Induction of Axial Vascularisation in Bioartificial Tissues
U. Kneser
Department of Plastic and Hand Surgery, University of Erlangen-Nuremberg

15.10 – 15.30  Coffee Break

15.30 – 17.00  Brain Storming Session: “Biomaterials: Challenges and Opportunities”