International Symposium: "10 years Erlangen Institute of Biomaterials"

Date: **November 29th 2019**
9:00 h – 18.00 h

Venue: Bernhard-Ilschner-Hörsaal
H14 (0.61)
Martensstraße 5/7
91058 Erlangen
Germany

Our research activities

- ❑ Scaffolds for Tissue Engineering
  Bioactive glasses and composites
- ❑ Biofabrication and 3D bioprinting
- ❑ Nanomaterials and bioactive coatings for biomedical implants
- ❑ Drug delivery systems and antibacterial materials
  Bone regeneration and vascularisation
- ❑ Cardiac regeneration and wound healing materials
  Materials for dentistry
- ❑ Electrophoretic deposition and electrospinning
- ❑ Cell-biomaterial interactions

Contact Information:

Prof. Dr.-Ing. habil. Aldo R. Boccaccini
Institute of Biomaterials
Building I
Cauerstraße 6
91058 Erlangen
Germany

Phone: +49 (0)9131 85-28601
Fax: +49 (0)9131 85-28602

Email:
aldo.boccaccini@ww.uni-erlangen.de

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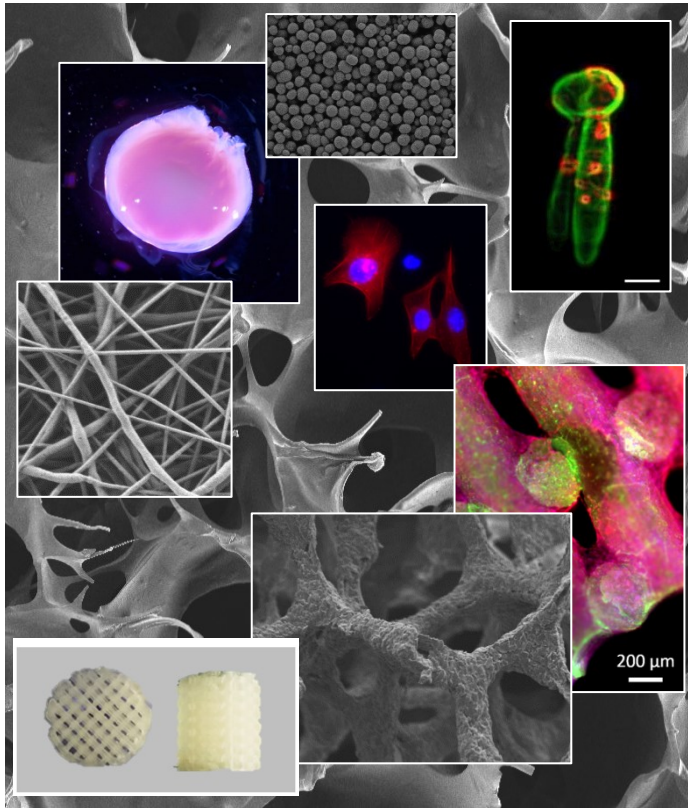
Erlangen Institute of Biomaterials International Symposium



Biomaterials Erlangen
10 YEAR ANNIVERSARY

Program

9.00-9.15h **Welcome and introduction**
Günter Leugering, Vice President, Research, University of Erlangen-Nuremberg, and Aldo R. Boccaccini, Head, Institute of Biomaterials, University of Erlangen-Nuremberg

9.15-9.25h **Bioactive silica-based nanoparticles in magic potions for bone tissue engineering**
João Mano, University of Aveiro, Portugal

9.25-9.35h **Advanced stem cell cultivation for cell based therapies**
Cornelia Kasper, University of Natural Resources and Life Sciences Vienna, Austria

9.35-9.45h **Hyaluronan platform for musculoskeletal regeneration**
Mauro Alini, AO Foundation, Davos, Switzerland

9.45-9.55h **How relevant are in vitro studies of bioactive glasses?**
Leena Hupa, Åbo Akademi Turku, Finland

9.55-10.05h **Nano-structured bioactive glass embedding natural derived bioactive molecules**
Maria Elisa Galarraga, Goethe University Frankfurt am Main, Germany

10.05-10.15h **Visualizing the evolution of crystallization and mineralization of bioactive glasses**
Delia S Brauer, Friedrich Schiller University Jena, Germany

10.15-10.25h **EPD and characterization of PEEK-based composite coatings on titanium alloys for medical applications**
Tomasz Moskalewicz, AGH University of Science and Technology, Krakow, Poland

10.25-10.35h **Electrospinning and beyond**
Dirk W. Schubert, University of Erlangen-Nuremberg, Germany

10.35-10.45h **Glasses and composites at GLANCE**
Monica Ferraris, Politecnico di Torino, Italy

10.45-11.15h **Coffee Break**

11.15-11.30h **Challenges in understanding and controlling the corrosion behaviour of biodegradable metals**
Sannakaisa Virtanen, University of Erlangen-Nuremberg, Germany

11.30-11.40h **Bioactive coatings for biomedical implants**
Julietta V Rau, Italian National Research Council, Rome, Italy

11.40-11.50h **Trends and challenges in the mathematical modeling of soft biomaterials**
Christian Hellmich, TU Vienna, Austria

11.50-12.00h **Relevance of colloidal processing in tissue engineering**
Begona Ferrari, Institute of Ceramics and Glass, Madrid, Spain

12.00-12.10h **Dairy-derived biomaterials**
Timothy E L Douglas, Lancaster University, UK

12.10-12.20h **Mesoporous glass scaffolds upgraded with osteostatin and MSCs for bone defect treatment**
Antonio J Salinas, Complutense University of Madrid, Spain

12.20-12.30h **Promoting the International Students Exchange: the I.DEAR-Materials Program**
Flavio Soldera, University of Saarland

12.30-12.40h **Alginate microcapsules incorporated with SPIONs for biomedical applications**
Maizlinda Izwana Idris, Universiti Tun Hussein Onn, Batu Pahat, Malaysia

12.40-12.50h **Electrophoretic deposition coatings for energy conversion and storage systems**
Federico Smeacetto, Politecnico di Torino, Italy

12.50-13.00h **Research of Biomaterials Lab OTH Regensburg**
Helga Hornberger, OTH Regensburg, Germany

13.00–14.15h **Lunch Break**

14.15-14.30h **Acellular approach to in situ tissue engineering of vascular grafts**
Ranjana Rai, University College London, London, UK

14.30-14.45h **Nanoparticles in regenerative medicine**
Christoph Alexiou, University of Erlangen-Nuremberg, Germany

14.45-14.55h **Electrophoretically deposited chitosan-bioactive glass coatings on Mg-based substrate**
Agnieszka Witecka, Institute of Fundamental Technological Research, Warsaw, Poland

14.55-15.05h **Active sol-gel materials for different applications**
Justyna Krzak, Wroclaw University of Science and Technology, Poland

15.05-15.15h **Extraction of hydroxyapatite and gelatin from black tilapia fish bone and scale**
Hasan Zuhudi Abdullah, Universiti Tun Hussein Onn, Batu Pahat, Malaysia

15.15-15.25h **The Influence of Collagen Structure and Surface Biochemistry on Cell Function and Angiogenesis**
Nima Meyer, University of Cambridge, UK

15.25-15.35h **Natural Polymers of bacterial origin and their use in Biomedical applications**
Ipsita Roy, University of Sheffield, UK

15.35-15.45h **Overview of the activities of the Institute of Research for Ceramics (IRCER / CNRS, University of Limoges) in the field of biomaterials (implants for BTE and biosensors): Focus on additive manufacturing issues.**
Fabrice Rossignol, French National Centre for Scientific Research, Limoges, France

15.45-16.00h **Bioplastics - an eco-friendly alternative**
Marwa Tallawi, Technical University of Munich, Freising, Germany

16.00-16.15h **Coffee Break**

16.15-16.30h **Electrophoretic deposition of chitosan/gelatin/Ag doped mesoporous bioactive glass nanoparticles on 316L SS**
Muhammad Atiq Ur Rehman, Institute of Space Technology, Islamabad, Pakistan

16.30-16.45h **Microfluidic fabrication of micro/nanoparticles for controlled drug delivery**
Wei Li, University of Helsinki, Finland

16.45-17.00h **Colloidal gels and their application as biomaterial inks for 3D printing**
Mani Diba, Rice University, Houston, US

17.00-17.15h **Drug-loaded polylactic acid microparticles integrated in gelatin scaffolds for tissue engineering applications**
Patcharakamon Nooeaid, Srinakharinwirot University, Bangkok, Thailand

17.15-17.30h **Organic–inorganic hybrid bone substitutes based on bioactive glass and polycaprolactone**
Lukas Gritsch, Institut National de Physique Nucléaire et de Physique des Particules, France

17.30-18.00h **Discussion: Future challenges for biomaterials**
Ben Fabry, Raymund Horch, Felix B. Engel, Oliver Friedrich, University of Erlangen-Nuremberg and All participants