

**International Symposium:  
“Erlangen Institute of Biomaterials:  
Inauguration of new building and  
facilities”**

*and*

**3<sup>rd</sup> Erlangen Symposium on Biomaterials:  
“Challenges for the 21st Century”**

Date: **November 28<sup>th</sup> 2016**  
**9:00 h – 17.30 h**

Venue: Institute of Biomaterials  
Building II  
Ulrich-Schalk-Str. 3  
91056 Erlangen  
Germany



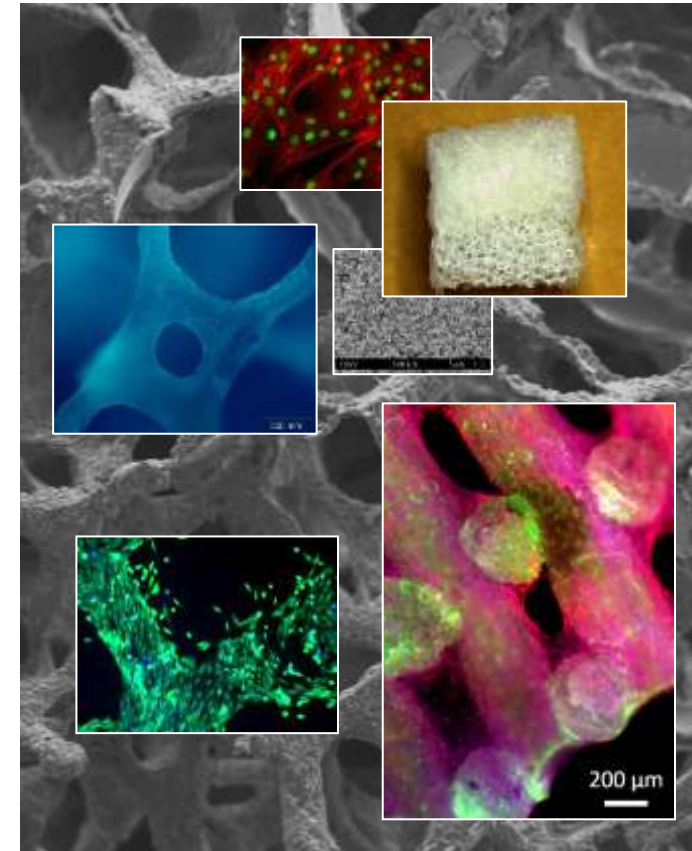
**Erlangen Institute of  
Biomaterials  
International Symposium**

**Contact Information:**

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# Programme

## 9.00-9.15h Welcome and Introduction

Representative of University of Erlangen-Nuremberg and  
Aldo R. Boccaccini  
Head, Institute of Biomaterials  
University of Erlangen-Nuremberg

## 9.15-9.45h Tailored Hydrogels as Biomaterials: From Drug Delivery to Regeneration

Juergen Groll, University of Würzburg

## 9.45-10.15h Surgical Angiogenesis: from Bench to Bedside

Ulrich Kneser, BG Trauma Center  
Ludwigshafen and University of Heidelberg

## 10.15-10.45h Biotribology research in the development of personal care and healthcare devices

Lutz-Christian Gerhardt  
Philips Research , Eindhoven, The Netherlands

## 10.45-11.15h Coffee Break

## 11.15-11.30h The third dimension in Tissue Engineering - optimization of extracellular matrix production on biomimetic scaffolds using advanced multiphoton imaging readouts

Oliver Friedrich  
University of Erlangen-Nuremberg

## 11.30-11.45h Cardiac tissue engineering

Felix Engel, University Hospital Erlangen

## 11.45-12.00h Superparamagnetic Iron Oxide Nanoparticles (SPIONs) for Nanomedicine

Iwona Cicha, University Hospital Erlangen

## 12.00-12.15h Reconstituted collagen biopolymer networks: novel applications in cancer research and tissue engineering

Ben Fabry  
University of Erlangen-Nuremberg

12.15-12.30h **Musculoskeletal Tissue Engineering and Regenerative Medicine in Plastic Surgery**  
Justus Beier, University Hospital Erlangen

## 12.30 – 14.00h LUNCH

14.00-14.30h **Different approaches for blood vessel repair**  
Silvia Fare', Polytechnic of Milan, Italy

14.30-15.00h **Opportunities and challenges of extrusion-based 3D printing and bioprinting**  
Michael Gelinsky, TU Dresden

## 15.00- 15.15h Coffee Break

15.15-15.30h **An overview of 5 years of Biofabrication research and looking ahead to future activities at the Erlangen Institute of Biomaterials**  
Rainer Detsch  
University of Erlangen-Nuremberg

15.30–15.45h **Novel biomaterials by electrospinning: research activities at the Erlangen Institute of Biomaterials**  
Liliana Liverani  
University of Erlangen-Nuremberg

15.45-16.00h **Mechanical aspects in clinical prediction of dental biomaterials**  
Ulrich Lohbauer  
University Hospital Erlangen

16.00-16.15h **Unraveling the mysteries of cancer: when single migrating cells can whisper about their metastatic potential**  
Aldo Leal-Egana  
University of Erlangen-Nuremberg

16.15-17.15h **Round Table: Challenges and opportunities for biomaterials research**  
All

17.15h **Final remarks / Visit of new facilities**  
Aldo R. Boccaccini  
University of Erlangen-Nuremberg

# 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

