



Biology-inspired design concepts are receiving more and more attention in polymer science, paving the way for materials with unprecedented properties including molecular recognition, responsiveness, and self-healing capacity. The 13th Dresden Polymer Discussion and the 8th Max Bergmann Symposium of the Max Bergmann Center of Biomaterials were merged to discuss the most recent developments with key figures pioneering this field using various different approaches.

Program

Monday, April 2, 2012

- 9:00 Opening
Rainer Jordan/Carsten Werner
- 9:30 Andreas Lendlein, Teltow, Germany
Tailoring polymer networks for biomedical applications
- 10:00 Jeffrey Hartgerink, Houston, TX, USA
Designed charged pair interactions control multi-hierarchical self-assembly of collagen mimetic peptides
- 10:30 Coffee Break
- 11:00 Jordan Fletcher, Bristol, UK
Coiled-coil peptides as modular components for the preparation of new biomaterials
- 11:30 Robert Luxenhofer, Dresden, Germany
Defined synthesis of polypeptoids for biomaterials design
- 12:00 Alexander Kabanov, Omaha, NE, USA
Polymeric micelles and polyion complexes for drug delivery
- 12:30 Lunch
- 13:30 Martin Möller, Aachen, Germany
Prepolymers for Aqua- and Biohybrid-Materials
- 14:00 Matthias Lutolf, Lausanne, Switzerland
Synthetic hydrogel engineering to control stem cell behavior
- 14:30 Jürgen Groll, Würzburg, Germany
Side chain functional polysulfides for drug delivery
- 15:00 Coffee Break
- 15:30 Stefan Diez, Dresden, Germany
Biomolecular motors: From cellular function to nanotechnological application
- 16:00 Matthew Tirrell, Chicago, IL, USA
Multivalent Ionic Interactions in Multicomponent Polyelectrolyte Mixtures: From new Physics to new Materials
- 16:30 Break
- 17:00 Poster Session
- 19:00 Supper

Thursday, April 3, 2012

- 9:00 Marcus Textor, Zurich, Switzerland
Biomimetic approaches to surface functionalization for biomedical applications
- 9:30 Jens-Uwe Sommer, Dresden, Germany
Translocation of polymer chains through lipid bilayer membranes. A Monte Carlo Study
- 10:00 Nils Kröger, Dresden, Germany
Functional nanoscale coatings through peptide-induced layer-by-layer mineralization
- 10:30 Coffee Break
- 11:00 Chiara Neto, Sydney, Australia
Functional patterned surface coatings by dewetting of thin polymer films
- 11:30 Michael Schlierf, Dresden, Germany
Single-molecule approaches to biopolymers
- 12:00 Tanja Weil, Ulm, Germany
Tailored Biopolymers from Proteins and Peptides
- 12:30 Lunch
- 13:30 Thomas Scheibel, Bayreuth, Germany
Recombinant spider silk proteins: bio-inspired polymers for particles, films and more
- 14:00 Lino Ferreira, Cantanhede, Portugal
Biomaterials to manipulate the stem cell niche and to improve stem cell engraftment
- 16:00 Sightseeing in Dresden
- 19:00 Conference Dinner at the Restaurant Alte Meister, Theaterplatz 1 a, Dresden

Wednesday, April 4, 2012

- 9:00 Ashutosh Chilkoti, Durham, NC, USA
Genetically engineered polypeptide nanoparticles for drug delivery
- 9:30 Joerg Lahann, Ann Arbor, MI, USA
Multifunctional polymer particles enabled by compartmentalization
- 10:00 Joachim Spatz, Stuttgart, Germany
Biomimetic, nanostructured materials for hematopoietic stem cells
- 10:30 Coffee Break
- 11:00 Tilo Pompe, Leipzig, Germany
Protein and Cell Dynamics at Engineered Polymer Interfaces
- 11:30 Matthew Harrington, Potsdam, Germany
Biological materials as inspiration for self-healing polymers
- 12:00 Michael Grunze, Heidelberg, Germany
In-situ experimental simulations of biomechanical environments
- 12:30 Closing
Rainer Jordan/Carsten Werner
- 13:00 Lunch

Symposium Chairs: Rainer Jordan and Carsten Werner

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Conference Venue: Evangelische Akademie Meissen, Freiheit 16, 01662 Meissen
<http://www.ev-akademie-meissen.de/>

We invite applications for participation and presentation of a poster (please submit a one-page abstract until March 2, 2012).

Name

Surname

Title

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Affiliation

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Address

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Phone

Fax

e-mail

Registration fee (incl. VAT)

- EUR 250 Student EUR 300 (Academic) EUR 500 (Industry)

An invoice will be sent to the address given above for the transfer of the registration fee.

VAT number (required for invoice)

- Participation at the Conference Dinner (EUR 50), April 3, 7 pm, at the Restaurant Alte Meister, Theaterplatz 1 a, 01067 Dresden (<http://www.altemeister.net/de/>).

- Poster Contribution. Title and authors:

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Please return by March 2, 2012:

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