

Contact

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Symposium Chair
Bert Müller, PhD



Symposium Secretary
Verena Grotzinger

We kindly ask you to confirm your participation.

Venue

ZLF, Kleiner Hörsaal
University Hospital Basel
Hebelstrasse 20, CH-4031 Basel



Arrival train station SBB:
Bus #30 to "Bernoullianum", 2 min. walk to ZLF
Arrival train station Badischer Bahnhof Basel:
Bus #30 to "Bernoullianum", 2 min. walk to ZLF

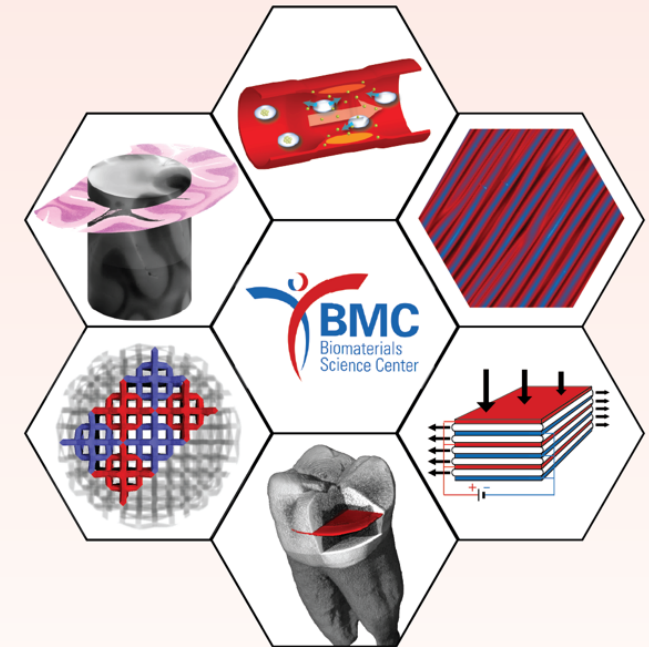
Arrival airport Mulhouse/Basel:
Airport shuttle to train station SBB
Arrival Zurich airport:
Train to station SBB

Arrival car:
City-Parking directly at University Hospital



Symposium in honor of Dr. h.c. Thomas Straumann

10th anniversary Biomaterials Science Center



May 11th, 2017



Universitätsspital
Basel

Program

Dear colleagues and friends,

With the generous endowment from Thomas Straumann, we founded the Biomaterials Science Center (BMC) at the University of Basel in 2007. It's mission: Employing physical principles in multidisciplinary environment to tackle the major medical challenges of the 21st century.

After ten years we are going to celebrate the anniversary with a one-day symposium to share past experience, to discuss current challenges in biomedical engineering and to evaluate future developments for benefitting patients. For this purpose, the four speakers from the symposium held in March 2007 have been invited again. We are proud that all of them followed the invitation and will talk about past and present challenges in our field. In addition, four other outstanding scientists active in materials science and regenerative medicine will present their work and future ideas. During the breaks, the former and current doctoral students will show posters to elucidate the research activities in dentistry, medicine, physics, nanosciences, and biomedical engineering.

It is my pleasure to invite you to broaden your acquaintance with materials- and physics-based research for the improvement of human health and initiating promising initiatives in the triangle: clinics - MedTech industry - university.



Bert Müller, PhD
Thomas Straumann-Chair
of Materials Science in Medicine

- 09:15 *Andrea Schenker-Wicki*: Sponsoring research at the University of Basel
- 09:20 *Edwin Constable*: Interdisciplinary research at the University of Basel
- 09:30 *Conradin Cramer (tbc)*: University – a source of innovation
- 09:35 *Werner Kübler (tbc)*: Impact of physics and engineering to improve patient care

Session 1 (Chair: Katharina Maniura)

- 09:45 *Nadia Benkirane-Jessel*: Nanomedicine of the next decade in the upper Rhine region
- 10:15 *Bradley Nelson*: Engineering in medicine
- 10:45 BMC poster session and coffee break

Session 2 (Chair: Hans-Florian Zeilhofer)

- 11:15 *Irene Zanette*: Hard X-ray imaging for human health
- 11:45 *James Kirkpatrick*: How can pathology contribute to biomaterial and regenerative medicine research?
- 12:15 BMC poster session and buffet lunch

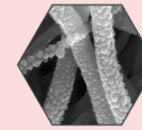
Session 3 (Chair: Lutz Nolte)

- 14:15 *Anne Skov*: Materials development for dielectric elastomer actuators
- 14:45 *Frank Witte*: Magnesium alloy-based implants
- 15:15 BMC poster session and coffee break

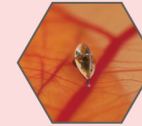
Session 4 (Chair: Julia Herzen)

- 15:45 *Regine Willumeit*: Tailoring the interfaces of implants to human body
- 16:15 *Gabor Kovacs*: Challenges and opportunities of artificial muscles
- 16:45 Closing remarks (Bert Müller)

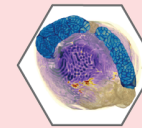
Speakers



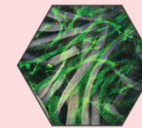
Nadia Benkirane-Jessel, Director of Osteo-articular, Dental Regenerative Nanomedicine at INSERM, focused on biofunctionalization of multilayered polyelectrolyte architectures.



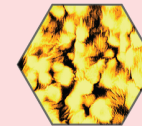
Bradley Nelson, Professor at ETH Zürich, focuses on micro- and nanorobotics. He is in the Guinness Book of World Records for the Most Advanced Mini Robot for medical use.



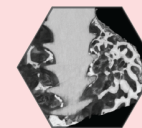
Irene Zanette, Diamond Light Source, develops advanced X-ray phase-contrast and dark-field imaging techniques for biomedical investigations.



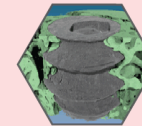
Charles James Kirkpatrick, triple doctorate in science and medicine, Emeritus in pathology at JGU, developing model systems for biomaterials in regenerative medicine.



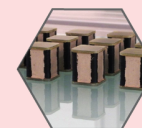
Anne Skov, Head of the Danish Polymer Center, professor at the Technical University Denmark, develops silicone-based elastomers for dielectric elastomer transducers.



Frank Witte, orthopedist, heads research activities on degradable biomaterials at the Julius Wolff Institute, Berlin-Brandenburg Center for Regenerative Therapies, Charité.



Regine Willumeit-Römer, Director of the Institute of Materials Research at Helmholtz Zentrum in Geesthacht, Germany. Research focused on the tissue-to-implant interface.



Gabor Kovacs, EMPA, heading a High-Tech spin-off company on compliant transducers, world-famous in the field of dielectric artificial muscles.