



University
of Basel

Department of
Biomedical Engineering



4th DBE Research Day

**The Department of Biomedical Engineering –
innovative research from bench to bedside**



Wednesday, 5 September 2018
Zentrum für Lehre und Forschung
Hebelstrasse 20, CH-4031 Basel
Register now: dbe-events.dbe.unibas.ch

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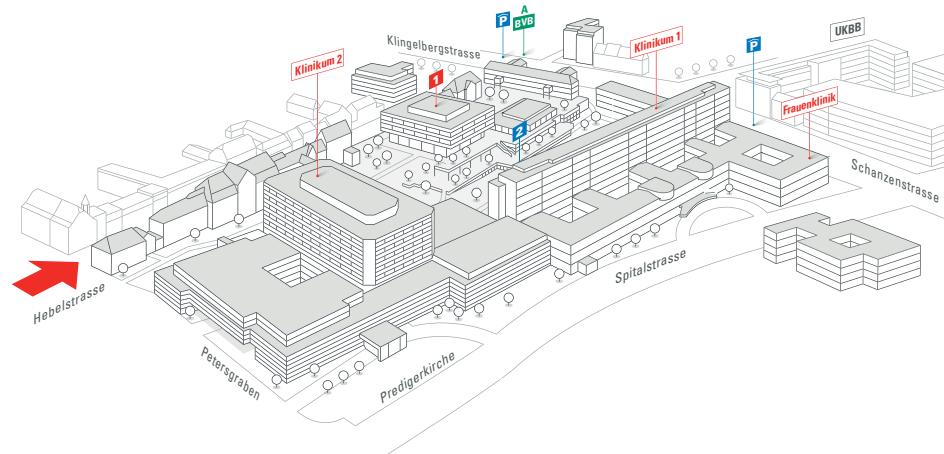
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Dear Guests and Colleagues

The Department of Biomedical Engineering (DBE) bridges the gap between natural science and medicine. Medical doctors, dentists, natural scientists, engineers and partners from the medtech industry cooperate, to advance medical technologies for the benefit of patients. On September 5, 2018, DBE researchers will illustrate their fascinating projects in presentations and during a poster session.

The department is a joint venture of the University of Basel, the University Hospital Basel (USB) and the University Children's Hospital Basel (UKBB). We are proud that this year's welcome speech will be given by Prof. Dr. Urs Frey, Medical Director of the University Children's Hospital Basel. You are warmly invited to join us at the 4th DBE Research Day – see you at the «Zentrum für Lehre und Forschung» of the University Hospital Basel!

Prof. Dr. Philippe C. Cattin
Department Head



1 Zentrum für Lehre und Forschung (ZLF), Hebelstrasse 20

2 Ausgang Hebelstrasse, Universitätsspital Basel und ZLF

P City Parking Einfahrt Schanzenstrasse oder Einfahrt Klingelbergstrasse

A Bus 31, 33, 34, 36, 38 – Universitätsspital

Agenda

08:45	Prof. Dr. Urs Frey Medical Director UKBB	Welcome Speech
08:55	Prof. Dr. Georg Rauter	Medical robotics and its benefits for the MIRACLE project
09:10	Manuela Eugster	Parallel Mechanism for the Stabilization and Guidance of a minimally invasive Laserosteotome
09:25	Dr. Nicolas Gerig	GG1 – collaborative robot for minimally invasive procedures
09:40	Prof. Dr. Azhar Zam	Smart Laser Osteotome: The Future of Bone Cutting
09:55	Hamed Abbasi	Feedback System for a Laserosteotome: Optical and Acoustical Approaches
10:10	Iris Schmidt	Monitoring System for a Laserosteotome: Optical Coherence Tomography (OCT)
10:25	Prof. Dr. Philippe Cattin	Comments on Poster Session
10:30	Coffee Break & Poster Session	
11:15	Dr. Mathieu Sarraçanie	Exploiting the physics of ultra-low field MRI – Update on the AMT Lab progress
11:30	Prof. Dr. Oliver Bieri	MRI of the lung
11:45	Dr. Bram Stieltjes	Translational clinical data-science
12:00	Prof. Dr. Cristina Granziera	Bridging Engineering, Radiology and Neurology: why is it so challenging & exciting?
12:15	Lunch Break	
13:15	Prof. Dr. Pablo Sinues	Translational Breath Research in the Clinic
13:30	Dr. Edgar Delgado-Eckert	Patient phenotyping using longitudinal measurements of asthma biomarkers
13:45	Dr. Nicole Kalberer	Influence of the Laser Microdissection and Pressure Catapulting method on DNA-Quantity and DNA-Quality in forensic samples
14:00	Dr. Georg Schulz	Micro- and nanotomography in the field of biomedical engineering
14:15	Dr. David Wendt	Bioreactor technologies for in vitro models and graft manufacturing
14:30	Dr. Corina Nüesch	Functional biomechanics – assessing functional limitations and adaptations in orthopedic and trauma patients
14:45	Closing of the DBE Research Day	