



Universität
Basel

Department of
Biomedical Engineering



5th DBE Research Day

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



Wednesday, 28 August 2019
Zentrum für Lehre und Forschung
Hebelstrasse 20, CH-4031 Basel
Register online <https://dbe.unibas.ch/>

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Dear Guests and Colleagues

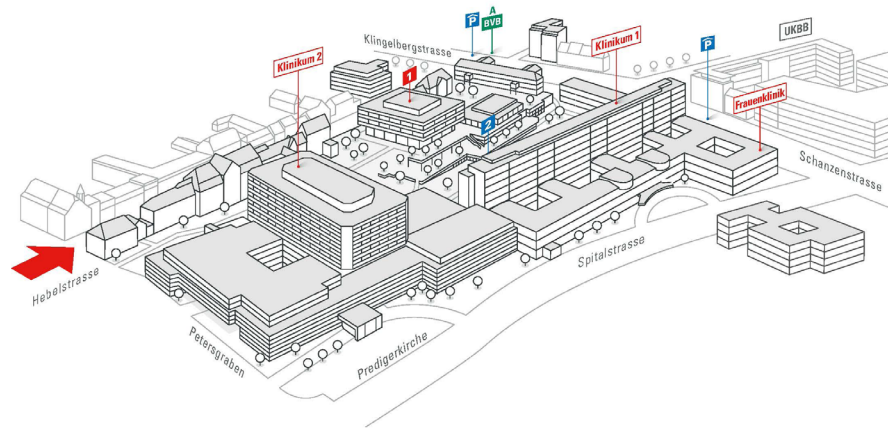
The Department of Biomedical Engineering (DBE) at the University of Basel warmly invites you to the 5th DBE Research Day!

The DBE bridges the gap between natural science and medicine in order to improve procedures and technologies for medical treatment. DBE's goal is to provide tools for advanced patient-specific and evidence-based therapy. On August 28, DBE researchers will illustrate their fascinating projects in presentations and during a poster session.

The DBE is a joint venture of the University of Basel, the University Hospital Basel and the University Children's Hospital Basel, and is associated with researchers from the University Center for Dental Medicine Basel. The exchange between institutions and research fields combines basic science, clinical medicine, and medical technology, which fosters a culture of translating scientific developments into real-world application.

I am looking forward to meeting you during the 5th DBE Research Day at the «Zentrum für Lehre und Forschung» of the University Hospital Basel!
Please register via <https://dbe-events.dbe.unibas.ch/>.

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. H.-F. Zeilhofer | Welcome Speech |
| | Session 1 – Talks | Chair: Dr. Jens Würfel |
| 08:55 | Prof. Dr. Najat Salameh | Adaptable MRI Technology Lab - Interventional and susceptibility artifact-free MR Imaging |
| 09:10 | Dr. Marco Fiorito | Low magnetic field interventional MR |
| 09:25 | Maksym Yushchenko | MR Elastography |
| 09:40 | Prof. Dr. Cristina Granziera | Translational Imaging in Neurology (ThINk) Basel |
| 09:55 | Dr. Riccardo Galbusera | On the relationship between post-mortem brain histo-pathology and advanced MRI in multiple sclerosis patients |
| 10:10 | Po-Jui Lu | Machine-learning-based quantification of axonal damage & repair in multiple sclerosis measured by advanced MRI |
| 10:25 | Prof. Dr. Philippe Cattin | Comments on poster session |
| 10:30 | Coffee Break & Poster Session | |
| | Session 2 – Talks | Chair: Prof. Dr. Raphael Guzman |
| 11:15 | Arsham Hamidi | Integration of long-range optical coherence tomography and Er: YAG laser for smart laserosteotomy |
| 11:30 | Roushanak Hassani | Real-time motion intention recognition for robot-assisted gait rehabilitation |
| 11:45 | Samaneh Manavi | FBG-based shape sensor for tracking fully flexible endoscopes |
| 12:00 | Esther Zoller | Choosing the best handle for a haptic telemanipulator |
| 12:15 | Susanne Daniel | Information on Horizon 2020 calls |
| 12:20 | Lunch Break | |
| | Session 3 – Talks | Chair: Dr. Cordula Netzer |
| 13:30 | Dr. Anirban Sinha | Loss of adaptive capacity in asthmatics revealed by biomarker fluctuation dynamics upon experimental rhinovirus challenge |
| 13:45 | Dr. Kapil Dev Singh | Real-time therapeutic monitoring of valproic acid in exhaled breath |
| 14:00 | Robin Sandkühler | Do we still need manual annotations to learn from? |
| | Session 4 – Speed Pitches | Chair: PD Dr. Arnaud Scherberich |
| 14:15 | Dr. Olivier Braissant | Calorimetry for antimicrobial material testing |
| | Dr. Srinivas Madduri | Bioengineering approaches for peripheral nerve reconstruction |
| | Prof. Dr. Bert Müller | Nanotechnology for human health |
| | Prof. Dr. Florian Thieringer | 3D-printing in cranio-maxillo-facial surgery |
| | Prof. Dr. Eva Scheurer | Forensic imaging in living victims |
| | Prof. Dr. Alexander Navarini | Quantitative dermatology |
| | Prof. Dr. Marios Psychogios | Innovations in neuroradiology |
| 14:50 | Prof. Dr. Philippe Cattin | Closing speech of the DBE Research Day |
| 15:00 | End of the DBE Research Day – feel free to continue discussions at Centrinio | |