University of Basel

Department of Biomedical Engineering

12th DBE Research Day

The Department of Biomedical Engineering: Innovative Research from Bench to Bedside

Wednesday, 26 August 2026
Biozentrum, University of Basel
Spitalstrasse 41, CH 4056 Basel
Register now: dbe-events.dbe.unibas.ch

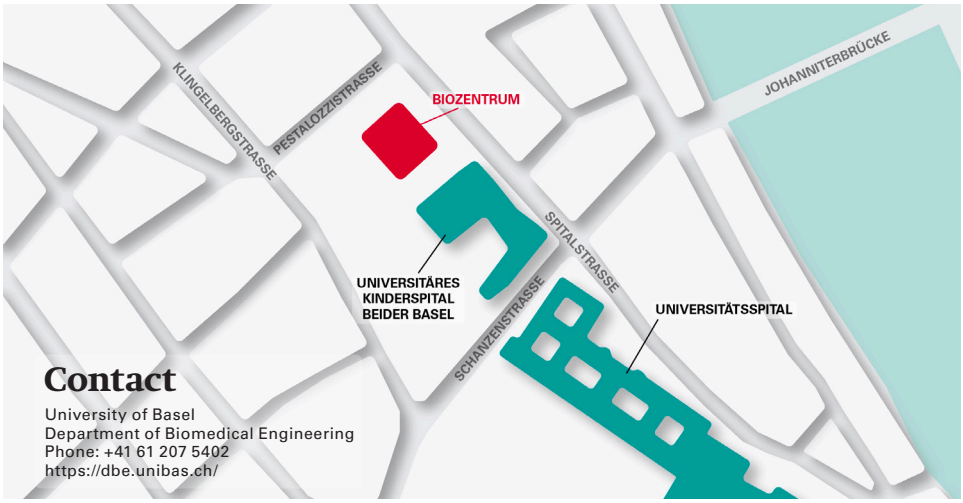
Dear Guests and Colleagues,

Last year, the Department of Biomedical Engineering took significant steps to bring its mission beyond the doors of our labs. We embraced new opportunities to connect more closely with the public: demonstrating how innovation can benefit patients' lives to global audiences at the World Expo in Osaka, and engaging with the local community at Theaterplatz in Basel.

The gap between laboratory research and clinical solutions remains central to our work. But what does bridging this gap actually entail in our day-to-day practice? At the DBE, we believe it depends on collaboration, communication, and the willingness to engage into new contexts. By venturing out of our laboratories and reaching out to potential partners, we open ourselves to new perspectives, foster interdisciplinary partnerships, and ensure that our innovations address real-world challenges. This is the first step toward developing groundbreaking technology that will revolutionize the future of healthcare.

It is in this spirit of connection that we invite you to the 12th edition of the DBE Research Day. We look forward to sharing this moment with you, and continuing to bring the DBE beyond its walls.

Prof. Philippe Cattin
Department Head



Contact

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Agenda
26 August 2026

8.45	**Welcome to the 12th DBE Research Day by Prof. Felix Mahfoud**	
9.00	**Session 1: New Groups | Chair: Dr. Anas Taha**	
9.00	Prof. Viktor Kölzer	Computational and Translational Pathology – Biomedical Engineering for Clinical Impact in Tissue Diagnostics
9.15	PD Dr. Peter Wahl	The CADEPE-THA project
9.30	Prof. Burcu Tepekule	Mathematical Models of Microbiome-Immune Interactions in Early Life
9.45	**Poster Session & Coffee Break**	
11.45	**Session 2: Tandems | Chair: Dr. Maria Licci**	
11.45	Prof. Martin Styner & Prof. Cristina Granziera	AI in Neurology: From Voxels to Patients
12.00	Dr. Mattia Humbel & Dr. Daphne Schönegg	In Vivo Imaging Using Synchrotron Radiation
12.15	Dr. Anna Stoll & Kristina Boger	The Grass is Greener…and the Science is Higher: CANBiome's Interdisciplinary Trip
12.30	Andreas Roser & Rubén Martín Rodríguez	Between the Layers — Collaborating at the Edge of Biomedical Research
12.45	**Lunch Break**	
13.45	**Session 3: Evaluated Group: CIO | Chair: Prof. Niklaus Friederich**	
13.45	Dr. Ferda Canbaz	Center for Intelligent Optics
13.55	Dr. Florian Frank	Can Lasers Improve the Orthopedic Procedures?
14.00	Dr. Francesco Boschetto & Leya Pauly	The Importance of Spectroscopy in Tissue Analysis

14.15	Aikaterina Grava & Milad Mohammadi	Optical Coherence Tomography: See Beyond
14.30	Dr. Arsham Hamidi, Mingyi Liu & Vinamrata Bhardwaj	Smart Arthroscope (LAROSCOPE)
14.45	**Break**	
15.00	**Session 4: Evaluated Group: BIROMED-Lab | Chair: Prof Elke Viehweger**	
15.00	Prof. Georg Rauter	The BIROMED-Lab: Medical Robots from Idea to Translation
15.10	Prof. Carol Hasler	Towards Personalized Biomechanics-Based Surgery in Spinal Deformity
15.20	Dr. Felix Erb	A Structured In Vivo Spinal Loading Framework: From Motion Parametrization to Anatomical Validation
15.30	Dr. Yukiko Tomooka	Medical Miniature Robots: Toward Minimally Invasive Tissue Processing
15.40	Dr. Michael Sommerhalder	LAser RObot CArtilage REgeneration (LAROCARE): Will Robots Bring the Breakthrough for Better Cartilage Integration?
15.50	Dr. Lauren Chee	Enhancing FLOAT Therapy Using Movement-Prediction and Optimized, Activity-Specific Control
16.00	**Award Ceremony | Chair: PD Dr. Claudia Lenz**	
16.10	**Closing Remarks by Elisa Sohrmann**	
16.20	**Get Together Toast**	