



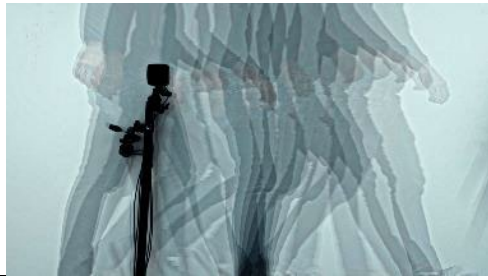
University
of Basel

Department of
Biomedical Engineering

DBE Newsletter

September 2024

Congratulations



to PD Dr. Sangeux on his SNSF grant "Identifying the Causes for Patella Instability"
PD Dr. Morgan Sangeux of Prof. Elke Viehweger's group Clinical Biomechanics in Pediatric Orthopedics and Musculoskeletal Modelling has raised around 650'000 SFR from SNSF. The researchers expect this research project to generate new knowledge on the causes of patella femoral joint instability, contribute new tools to an open-source musculoskeletal modelling platform, and lead to improved clinical decision making for children and adolescents with patella femoral joint instability. [Read more.](#)



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Confederation

Innosuisse – Swiss Innovation Agency

to Prof. Pablo Sinues on his re-election as an Innosuisse Expert

At the Innosuisse Board meeting in September, [Prof. Dr. Pablo Sinues was re-elected as member of the Innosuisse Expert Board](#) for another term until the end of 2025. With this decision, Sinues will enter his third consecutive term as Innosuisse Expert. Experts assist the Innovation Council with examining applications for funding and during accompanying projects. It is their job to endorse, or oppose, applications for innovation projects.



to Dr. Celine Berger on winning the PhD thesis award from the DGRM

Dr. sc. med. Celine Berger from the "Forensic Medicine and Imaging" research group has received the PhD thesis award from the German Society of Legal Medicine (DGRM). The award has been solemnly handed over to her during the annual meeting of the DGRM, which took place beginning of September in Potsdam, Germany. Many congratulations to Celine! [Find more at DBE News.](#)

About us – Highlighted



A Next Generation of Biomedical Engineers

On September 16, the fall semester of the Joint Master Program in Biomedical Engineering has started. Around 50 new students were shown around the labs, got some initial information and met their new colleagues at our Welcome and Info Event. With this fall semester 2024, the Joint Master Program of DBE and FHNW Life Sciences enters its second year. The high application numbers show that the immense prospects of the highly diverse field of biomedical engineering attracts the attention of young talents. [Website Master Program.](#)



Traces on breath – highlighted in UNI NOVA

Prof. Pablo Sinues was interviewed by UNI NOVA to talk about his work in developing a breath analysis platform that identifies molecules in exhaled air to create a "metabolic fingerprint." The article also covers Sinues' academic journey, the start-up Deep Breath Intelligence, and a brief outlook into the future. [Read the full article in UNI NOVA.](#)

About us – We welcome



Britta Brugger, who started her PhD with the Translational Medicine Breath Research (TMBR) group, led by Prof. Pablo Sinues. She completed her master's degree in Bioanalytics at Fachhochschule Nordwestschweiz (FHNW) in Muttenz. For her master's thesis, she focused on optimizing a dia-PASEF proteomics workflow using mass spectrometry, enhancing both data acquisition and analysis. During her PhD, Britta will investigate the heterogeneity of the human breath metabolome in health and disease. Her research includes projects such as the early detection of pneumonia, as well as addressing challenges posed by technological and biological variability across different setups.



Pavlos Panos, who recently joined Prof. Oliver Bieri's research group, focusing on the next generation of Lung MRI. Although his academic journey has been somewhat unrelated to medical imaging, beginning with a Bachelor's degree in Physics, specializing in Particle and Nuclear Physics, followed by a Master's in the same field, he has always been fascinated by the applications of physics in medicine. Over the past four years, Pavlos has been deeply involved in experimental particle physics at CERN, with a primary focus on developing machine learning techniques for new particle searches. Now, he is eager to apply his knowledge to the field of MRI as part of his PhD work and future research.



Dr. Barbara Postolka, who started as a Postdoc in the Functional Biomechanics Group led by Prof. Annegret Mündermann. Since her undergraduate studies in Human Movement Sciences, she is interested in the biomechanics and movement patterns of both healthy individuals and patients with orthopaedic pathologies. After her doctoral studies at ETH Zürich, where she used dynamic videofluoroscopy to quantify *in vivo* joint kinematics, Barbara conducted a 3-year fellowship at KU Leuven to gain further insights into joint motion and loading using *in silico* musculoskeletal modelling. Her research in the Functional Biomechanics Group will focus on using IMU based motion capture for orthosis fitting and clinical applications.

Events



Save the date | 11th DBE Research Day | September 5, 2025 | Biozentrum, Basel

We are happy to let you know that the next DBE Research Day takes place on September 5, 2025. As this year, the event will be held at the Biozentrum.

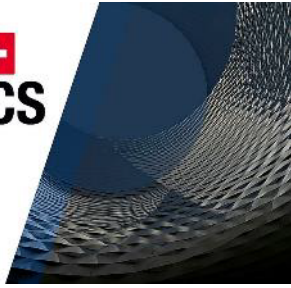


CYBATHLON | October 25-27 | Swiss Arena Kloten

In October the third edition of the [CYBATHLON](#) will take place in Kloten, Zurich. The world's largest competition where people with disabilities tackle tasks using newly developed assistive technologies. Seventy-six international teams from academia and industry will compete across eight disciplines in this unique event. Prof. Georg Rauter, Dr. Nicolas Gerig and Felix Erb are contributing to the event, and many from the BIROMED-Lab join as volunteers - join us, or approach us for questions!"

SWISS ROBOTICS DAY

1 November 2024
Congress Center
and Messe Basel
swissroboticsday.ch



Register Now | Swiss Robotics Day | November 1 | Congress Center and Messe, Basel

This year, the most important Swiss event on robotics will take place in Basel – co-organized by Prof. Georg Rauter and Dr. Nicolas Gerig from BIROMED-Lab. Register now for a comprehensive overview of the latest developments in medical and non-medical robots. [Click here for more information, program and registration.](#)



Science Slam Basel | October 11 | Kulturhaus Hábse, Basel

Researchers from various fields will compete to explain a scientific topic in just eight minutes, using any creative approach—from presentations and props to songs and live experiments. The audience will vote for their favorite slams, and there will also be an exciting supporting program. The event will be in English, with slams in both German and English. [Get your tickets here.](#)



International Open Access Week 2024 | October 21-27 | Online and hybrid in CH

The annual International Open Access Week is a great opportunity for the academic and research community to discuss Open Access, exchange new ideas, and to inspire a wider public to make OA a new norm in science and research. This year's theme continues the call to put "Community over Commercialization" and prioritize approaches to open scholarship that serve the best interests of the public and the academic community. [Click here for the program.](#)

BERN BIOMEDICAL ENGINEERING NETWORK EVENT

Biomedical Engineering Networking Event | November 7 | Bern

Are you a biomedical start-up or thinking of founding one? Don't miss this networking event. Presentations from Innosuisse and the start-up club will highlight different funding and support tools. Euresearch will present the Horizon Europe funding opportunities. You will also hear from testimonials of start-ups. [More information.](#)



The International Annual Conference on AI in Health | November 11-12 | Basel

Hosted by the University of Applied Sciences and Arts (FHNW), this event will explore cutting-edge AI applications in diagnostics, therapeutics, and digital twins in healthcare. Attendees from academia, industry, and clinical practice will engage in dynamic sessions, workshops, and discussions on the future of AI-driven healthcare. [More information.](#)

Seminar Series



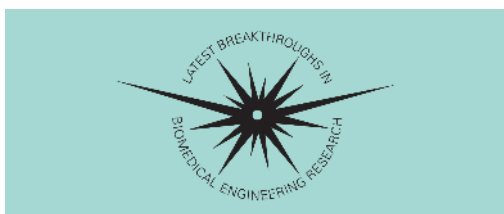
Bridge Walk | Series of lectures on bridging the gap between faculties & disciplines

This [lecture series](#), attempts to critically examine the division between the social and natural sciences and how to bridge the gap at the institutional level. The speakers will analyze the strong separation between these disciplines and how technology organizes political and power relations. They will also consider why certain technologies have stood the test of time while others have not. The Bridge Walk Lectures are co-organised by two PhD candidates of the University of Basel, Mohammad Khair Nahhas (BIROMED-Lab, DBE) and Fares Damien (Near and Middle Eastern Studies) and financed by the Graduate School Social Sciences ([G3S](#)) and the PhD Program Health Sciences ([PPHS](#)).



UniBasel ReproducibiliTea – Journal Club | Every Thursday from October 10 | Online

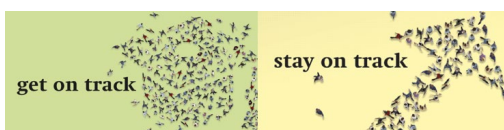
The ReproducibiliTea UniBasel Journal Club discusses topics on reproducibility, replicability, open science and statistics. [More information and registration.](#)



Latest Breakthroughs in Biomedical Engineering Research | Every Thursday | DBE

During this [new seminar series](#), to be held every Thursday from October 10 at 15:30 in the DBE Science LOUNGE, the DBE groups will each week host an expert in their respective field of research for a 45-minute presentation followed by a 15-minute question-and-answer session. The lectures are followed by a networking event in a relaxed atmosphere. Seminar participants will get an overview of the research being carried out at the DBE, and will also have the opportunity to talk directly to national and international experts and meet other researchers.

Calls & Research Funding



Get/Stay on track | Relief options for PhD students & Postdocs with family responsibilities

The University of Basel offers funding for [PhD students](#) and [Postdoctoral researchers](#) who are parents. The support includes (supplementary) childcare, hiring a student assistant, or individual support. Applications can be submitted any time.



SNSF and Innosuisse online information events

Looking for funding for your project? Find out all about the SNSF and Innosuisse funding schemes at three [online information events](#) in October and November 2024.

Postdoctoral Fellowships 2024

[Postdoctoral Fellowship](#) grants for early-career researchers aiming to consolidate their scientific knowledge and develop their academic career in Switzerland. Submission deadline: December 2, 2024

Starting Grants 2025

An [SNSF Starting Grant](#) comes after several years of research after the PhD, or an equivalent qualification or medical degree, during which time the grantees have already conducted research independently and contributed to impactful research in their field. The scheme is open to all disciplines and topics; researchers of any nationality may apply. Applicants can request a budget of up to CHF 1.8 million for a period of five years. Submission deadline: January 15, 2025

New Call – National Centres of Competence in Research (NCCRs)

Long-term research on strategic topics: the SNSF is launching a new series of [National Centres of Competence in Research \(NCCRs\)](#) on behalf of the federal government. This new call is thematically open and is aimed at all disciplines. Submission deadline: February 3, 2025.

Check out the [SNSF website](#) for further calls.

At the Department of Biomedical Engineering, we translate basic science and engineering into medical knowledge and healthcare innovations. We provide high quality education and capacity building for academics, clinicians, and industrial partners. The DBE is a joint venture of the University of Basel, the University Hospital Basel and the University Children's Hospital Basel.

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