



University
of Basel

Department of
Biomedical Engineering

DBE Newsletter

March 2021

Highlighted



Low-Field MRI is on the Rise

The benefits of low-field MRI have been evident for decades, only the path to clinical application seemed to be blocked. This is currently changing with research powerfully striving for translation. The DBE is at the forefront of this development with the AMT Center and co-head Prof. Mathieu Sarraçanie, who appears in [two recent articles](#) discussing the advantages of adaptable MRI systems.



Bottneuro in Forbes' «Spin-Offs to Watch 2021»

The Forbes Magazine for the DACH region has listed DBE spin-off [Bottneuro](#) as one of the «Spin-Offs to Watch 2021», claiming that it is one of the «particularly promising spin-offs from the top 30 universities in Germany, Austria and Switzerland». Please find more detailed information about it at [DBE news](#).

About us – We welcome



Nair Nan von Mühlén started her PhD in the research group CIAN, led by Prof. Philippe Cattin. She has obtained her Bachelor's degree in Nanoscience as well as her Master's degree in Biomedical Engineering here at the University of Basel. For her master thesis, she started developing a reinforcement learning method for automatic dose control in proton radiotherapy. She will continue this work in her PhD, and extend the reinforcement learning method with breathing induced organ motion models.



Álvaro González Jiménez started his PhD at the University of Basel under the supervision of Prof. Alexander Navarini. He got his Bachelor degree in Computer Science from the University of Sevilla (Spain). He worked at NAVER LABS Europe on a project to enable non-experience users to create and maintain applications. After that, Álvaro got his MSc in Data Science at ENSIMAG (France). He did his internship at INRIA, where he researched a robust loss using a heavy-tailed distribution to detect outliers in an unsupervised manner. The topic of his PhD is a differential diagnosis in dermatology using deep learning.

Events



First DBE PhD Day took place in March 2021

On March 19, 2021, the first (virtual) [DBE PhD Day](#) took place, connecting almost 50 researchers through poster sessions, networking opportunities, and interactive lab tours showcasing the groups Magnetic Resonance Physics & Methodology (Prof. Oliver Bieri), Translational Breath Research (Prof. Pablo Sinues), 3D Print Lab (Prof. Florian Thieringer), and Functional Biomechanics (Prof. Annegret Mündermann). After these exciting exchanges, the event was concluded by about 30 DBE PhD and Master students engaging in an online murder mystery game.

SWISS MEDTECH

MDR online Conference on «Software as Medical Device» - March 25, 2021

The online webinar in English will focus the topic «Software as Medical Device» on March 25. The regulatory requirements around «SaMD» will be highlighted – from development to approval to data protection. Please register [here](#).

[MEET THE EXPERT] Implants / ORTHOMANUFACTURE 2021, April 28/29, 2021

[\[MEET THE EXPERT\] Implants](#) is organized in cooperation with the event ORTHOMANUFACTURE in 2021 and will combine two well-known congresses for the implant industry in Europe. This year, the concept of these events is an online congress that is designed equally for manufacturers of implants, suppliers and service providers, as well as for universities and institutes.

ETH zürich



15th EXCITE Zurich Summer School on Biomedical Imaging, September 6-17, 2021

The [EXCITE summer school](#) is dedicated to teaching the basics and wider context necessary to understand recent advances and current challenges in biological and medical imaging. Cutting-edge techniques using a wide range of image-formation mechanisms will be discussed, with a focus on multimodal and multiscale imaging methods, together with supporting technologies such as computer-aided image analysis and modelling. The summer school addresses excellent MSc and PhD students as well as scientists from industry. Admission is decided based on the applicant's curriculum vitae, a statement of purpose and applicant's references. Please apply [here](#) until May 3, 2021.

Calls & Research Funding Deadlines



Investigator Initiated Clinical Trials (IICT) 2021

The special programme for [Investigator Initiated Clinical Trials \(IICTs\)](#) of the Swiss National Science Foundation supports clinical studies on underresearched topics that meet medical as well as social needs. Though important for patients, such study topics remain outside the industry focus. The IICT programme does not provide support for non-randomised and uncontrolled studies. The submission deadline is May 25, 2021.

Sinergia

[Sinergia](#) promotes the interdisciplinary collaboration of two to four applicants who propose breakthrough research. The submission deadline is June 1, 2021.

Good to know



SNSF and Innosuisse to step up cooperation

The [SNSF and Innosuisse](#) have signed an agreement to further strengthen the interaction between science and innovation. Through this agreement, the SNSF and Innosuisse are reiterating their shared understanding of the fact that the innovation chain – from basic research all the way through to novel products and services – requires coordinated and efficient funding.

Regulations: What's new

What changes can you expect in SNSF research funding? [Here](#) you can find the regularly updated page which gives you the latest information about new requirements and opportunities.

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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