

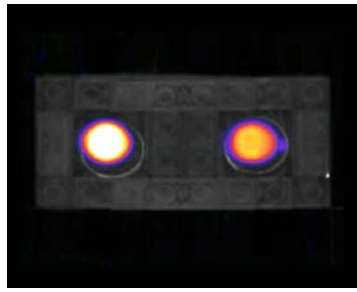
University
of Basel

Department of
Biomedical Engineering

DBE Newsletter

May 2020

Congratulations



on the first prize in the [SNSF's Scientific Image Competition!](#)

to Peter von Niederhäusern, together with Carlo Seppi and Dr. Reinhard Wendler from the DBE and Dr. Nicolas Guillaume from the University Hospital Basel. [The winning entry is called "Transparency in Science"](#) and was submitted in the category 4 "Video Loop". The jury commented: "A mesmerizing loop which puzzles the viewers, challenging their sense of orientation until they finally recognize the familiar shape of a popular toy. A vivid illustration that state-of-the-art research can proceed through a joyful bricolage of serendipity and simplicity, here revealing a behind-the-scenes moment, when an apparatus is merely calibrated before its actual use."



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

Innosuisse is the federal funding agency for science-based innovation. The experts support the Innovation Council in assessing funding applications and during accompanying projects. The experts assist the Innovation Council with examining applications for funding and during accompanying projects.



to PD Dr. Srinivas Madduri on his habilitation at Medical Faculty of Basel University

Srinivas Madduri head of the Center for Bioengineering and Regenerative Medicine at the DBE and his research is focused on repair and regeneration of peripheral nerves, spinal cord and brain injuries in a close collaboration with University Hospital Basel. For the DBE, he teaches in the field of Materials in Medicine, i.e., Biomaterials and Tissue Regeneration.

DBE-Groups Highlighted



Article : Re-Envisioning Low-Field MRI

Prof. Najat Salameh and Prof. Mathieu Sarracanie of the AMT Center have published a fascinating [article](#) in Siemens' MAGNETOM Flash Magazine No. 76/2020. In this article, they outline their project of opening up completely new fields of application for MRI technology.



Uni News about the DBE Startup "Bottmedical"

Bottmedical, founded by members of the BMC-group, has applied for patents and registered trademarks for its first products. This autumn, the "NaturAligner" - a transparent dental splint made of biopolymer – will be launched on the market. Another product is currently being developed to put an end to snoring. Please find more information about it at [Uni News](#) and [DBE News](#).



Collaboration between DBE and USB reflected in the USB's Annual Report 2019

The USB communication team used the [Gazetta article from 2018](#) about SpectoVR for its [Annual Report 2019](#). The [laser robot Carlo](#) is also mentioned with an article in the report. With this communication the successful collaboration between the DBE and the USB is well reflected.



"Nature": SpectoVR in Ophthalmology

A synopsis of the history of ophthalmological imaging in "Nature" addresses a cooperation between Prof. Philippe Cattin, Dr. Peter Maloca (University of Basel/Moorfield's Eye Hospital London) and Adnan Tufail (Moorfield's Eye Hospital London). The article starts with Prof. Hermann von Helmholtz' first ophthalmoscope in 1881 and ends with two cutting edge technologies: An analysis of OCT images of the eye and the use of Cattin's SpectoVR in ophthalmological diagnosis, planning, teaching and patient education. Read the full article [here](#).

About us



DBE Covid-19 - Emergency Operation Plan (EOP-V2)

As of April 27, 2020, the DBE works under an "Emergency Operation Plan V2" (EOP-V2) to be followed by everyone coming to DBE in Allschwil. Maximum 5 people are allowed to be present in the same area (i.e. labs and offices of one research group), 2 people from the same research group may work in one room and external collaborators (e.g. from the hospital) are as of now also allowed on the premises of DBE in Allschwil. Everybody who wants to come has to announce his/her presence (name, room, date, time) 24h in advance to dbe-central-admin@maillist.unibas.ch and has to confirm via [doodle](#) that the [EOP-V2](#) has been read and understood.



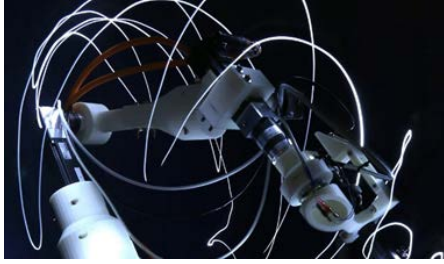
We welcome new scientists at Biomaterials Science Center of Prof. Müller!

Dr. Christine Tanner studied Artificial Intelligence and Mathematics at the University of Edinburgh after working as software engineer for Siemens AG in Munich for 12 years. Then she did her PhD at King's College London on registration of contrast-enhanced MR breast images. There she developed biomechanical models for simulating deformations to validate the registration methods. Extension of these models for surgical guidance as well as multi-modal image registration were topics of her postdoc position at University College London. Thereafter she joined ETH Zurich, where she devised methods for non-rigid motion estimation and spatio-temporal motion prediction for image-guided therapy. Her latest work was on interactive, weakly-supervised segmentation methods based on deep neural networks. At the BMC group she will be working on registration and segmentation of large CT datasets for creating a 3D atlas of the entire human brain.



Dr. Amin Sadeghpour started his scientific career at Sharif University of Technology in Iran. In 2012 he did his PhD in Chemistry at the University of Geneva, followed by postdoc positions at the Scattering Methods Laboratory of Prof. Otto Glatter at the University of Graz and the Lipid Biophysics Laboratory of Prof. Michael Rappolt at the University of Leeds. He has expertise in interface science and lipid self-assemblies, as well as advanced nano-structural analysis by small and wide-angle X-ray scattering. Before joining BMC, he led the small angle scattering studies at EMPA in St Gallen and taught in the MSc program of Biomedical Engineering at DBE. He is a member of the editorial board of an Elsevier book series entitled *Advances in Biomembranes and Lipid Self Assembly*. His main interest includes understanding novel structure-controlled functions in biomaterials.

Events



Medical Robotics Week postponed due to COVID-19 outbreak

The Medical Robotics Week and MESROB 2020 will be postponed due to the COVID-19 outbreak. New dates will be communicated as soon as possible.

Research Funding



Call for proposals: NRP 78 "Covid-19"

Mandated by the Federal Council, the SNSF is launching a call for the National Research Programme "[Covid-19](#)" (NRP 78). The aim is to provide health care recommendations and innovative solutions to fight the coronavirus disease 2019 (Covid-19).

SNF website - calls for proposals

Check the [SNF website](#) regularly to get an overview about the latest calls for proposals.

Good to know



Implementation of the EU Medical Device Regulation (MDR) postponed by one year

In the context of the COVID-19 pandemic, the European Commission and Parliament have decided to postpone the full applicability of the MDR by one year to May 26, 2021. This means that the current revision of the [Swiss Medical Device Regulation](#) will also be postponed to May 26, 2021. The final objective remains for Switzerland to achieve equivalence with EU law.

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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