



University
of Basel

Department of
Biomedical Engineering

DBE Newsletter

December 2018

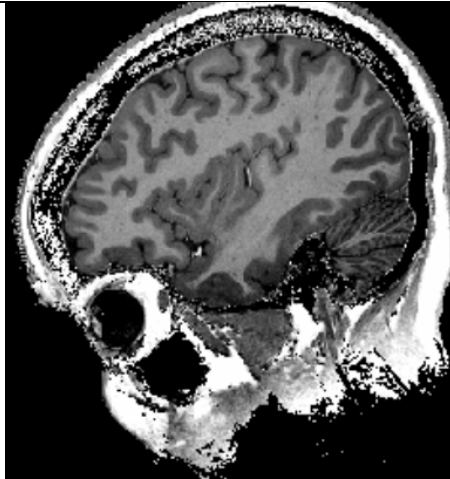
Events



New Year Event at DBE | Invitation on January 24

All DBE members are cordially invited to an informal get-together on January 24, 2019! Let's meet at the beginning of the new year in a relaxed atmosphere to chat about new and running projects and, of course, to enjoy snacks and drinks sponsored by the department. Philippe Cattin promised a very brief "new year's address" on current topics related to our department and hopes to welcome many Allschwil-based researchers as well as researchers at USB and UKBB on behalf of the DBE Executive Board.

See you on January 24 starting at 16h in the study area of the DBE (Gewerbstrasse 14, 3rd floor). Please register [online](#).



Lecture “Using 7T MRI to study the human cerebellum” at USB

Prof Cristina Granziera would like to invite DBE members to the lecture of Dr Wietske Van der Zwaag entitled “Using 7T MRI to study the human cerebellum”, which will take place on Monday December 17 at 12:00h in Hörsaal 5 Klinikum I.

Dr Wietske van der Zwaag currently works at the Spinoza Centre for Neuroimaging in Amsterdam. Her research aims at best harnessing the strong points of 7T in neuroimaging. She is especially interested in functional MRI of finely organized brain structures, such as the cerebellum. Much of her work is directed to the improvement of both the spatial and temporal resolution with which functional MRI (fMRI) data can be acquired. She also works on the improvement of fMRI acquisitions by (i) characterization and removal of the so-called ‘physiological noise’ and (ii) the improvement of post-processing strategies for high-resolution data.



National Future Day 2018 at DBE

On November 8 school children (5th to 7th class) all over Switzerland visited businesses, organizations as well as academic schools and gain insights into various working realities. The goal of National Future Day is to promote open career and life planning for school children, regardless of gender. Also the DBE participated in this important event. With the support of the MIRACLE project, the Biomaterials Science Center and the AMT-Lab an interesting program could be organized. Eight children visited our department and very much enjoyed gaining insights into a broad range of research activities. Building on their positive feedback, it was decided that the DBE will again open its doors for school children during the next Future Day in autumn 2019.

Education



The next round of the Transferable Skills program for doctoral students and postdocs will open on Wednesday, January 23, 2019, at 9.00 a.m. If you are interested in one of the courses, make sure to apply without delay given that the program experiences a high demand.

The course program supports researchers during their dissertation period and beyond and contributes to prepare for a professional career inside or outside of academia. Please find more information on the spring 2019 program [here](#).



PhD defenses at DBE

There are currently roughly 45 doctoral students enrolled in biomedical engineering with fascinating projects. Each PhD defense is an achievement that deserves to be valued, supported, and celebrated by the DBE members. In the future, we would be very happy to be able to inform the entire department on PhD defenses from DBE researchers, and to use those opportunities also to foster the links between research groups within each focal area and beyond.

We therefore invite you to inform us as early as possible of your defenses to make it possible to distribute the information to all DBE members. We understand that advertising the event might lead to more guests and thus additional costs; therefore, the students who advertise their defense will receive a humble financial support by the DBE for the apéro. For further information, please write to news-dbe@unibas.ch.

Research



SWISS NATIONAL SCIENCE FOUNDATION

Eccellenza Grant for Pablo Sinues

Pablo Sinues has attracted an [Eccellenza Grant](#) of the Swiss National Science Foundation. SNSF Eccellenza Grants are aimed at researchers in all disciplines who have recently been appointed as tenure-track assistant professors at a Swiss higher education institution. They can apply for project funds of up to 1,500,000 Swiss francs for five years.

Providing the right drug dose, at the right time, to the right patient is a paradigm for personalized medicine. The objective in this new project in the [group of Botnar-Professor Pablo Sinues](#) at the University Children's Hospital Basel and the Department of Biomedical Engineering is to optimize the therapeutic regimen of pediatric patients to maximize efficacy and minimize side effects. This will be achieved by developing a mass spectrometry-based breath test. Ultimately, this will lead to new opportunities to guide the dosage of drugs with high accuracy, in real-time and in a patient-friendly fashion.

Congratulations to Pablo and all the best for the project!



SERI Seed Money for Azhar Zam

Prof. Azhar Zam received a seed money grant from the State Secretariat for Education, Research and Innovation (SERI) and the [Zurich University of Applied Sciences \(ZHAW\)](#), which is the Leading House for research collaboration with partner institutions in South Asia and Iran. Together with partners from the Isfahan University of Medical Sciences in Iran, he will implement a feasibility study that aims at developing an OCT-based ocular health kiosk to diagnose Diabetic Retinopathy. Congratulations to Azhar!



Vanessa Leung and Roman of the Human Optics Lab (HOL) at DBE have been featured in the Novartis employee magazine "Live"

Via the funding scheme FreeNovation a project on myopia has been supported. The article shed light on the research why myopia is reaching pandemic proportions (particular in Asia) and how the Human Optics Lab at DBE aims to tackle this challenge. Novartis established FreeNovation back in 2016 to support scientists in Switzerland in their pursuit of unorthodox research ideas. So far, 25 investigator teams have taken up the challenge in fields as diverse as digital health, glycobiology and tissue engineering, among others. DBE has already two projects running funded by FreeNovation. Please take a look at the [video](#) that has been shared by Novartis.

Cooperation & Innovation



The section "[Cooperation & Innovation](#)" on the DBE website has been updated. You can now find maps with cooperation partners in Switzerland, Europe and worldwide, an overview of all current DBE spin-offs and a list with patents originating at the department. If you have further content to add, please contact us via news-dbe@unibas.ch.

About Us



**University
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Department Assembly

On November 6, the annual Department Assembly for group leaders and stakeholders took place in Allschwil. After the elections, the Executive Board of the DBE is now composed of the department head Philippe Cattin, Reinald Brunner (UKBB), Oliver Bieri (USB), Ludwig Kappos (USB) and Pablo Sinues (UKBB). Pablo Sinues is also new head of the DBE Teaching Commission.

Furthermore, the potential of the research focal areas of the DBE will be exploited more in the future: Annegret Mündermann for Biomechanics & Biomaterials, Najat Salameh for Imaging, Modelling & Diagnosis, Azhar Zam for Medical Lasers & Robotics, and Srinivas Madduri as well as Arnaud Scherberich for Regenerative Surgery took the responsibility to bring members of the focal areas together in order to strengthen the networks in Basel. The focal area

speakers and the group leaders of the focal areas will provide input to the executive board on strategic matters.

Thank you to all former and new board members as well as speakers for their support of the DBE! In particular, thank you to Prof. Bert Müller for his longstanding efforts for the master program.

You would like to publish news in the newsletter?
Please write us to news-dbe@unibas.ch

The Department of Biomedical Engineering bridges the gap between natural science and medicine in order to improve procedures and technologies for medical treatment. It is a joint venture of the University of Basel, the University Hospital Basel and the University Children's Hospital Basel.

