

Department of Biomedical Engineering

DBE Newsletter July 2024

Congratulations



to Prof. Eva Scheurer on her election as Dean of the Medical Faculty

<u>Prof. Eva Scheurer</u> (Head of the Institute of Forensic Medicine at the University of Basel and Member of the DBE Executive Board) has been elected Dean of the Faculty of Medicine. She will succeed Prof. Primo Schär who follows Torsten Schwede as Vice Rector of Research. We wish them great success in their new role.

Due to her new function Eva Scheurer will resign from her role as member of the executive board of the DBE. Eva has been a very valuable member to the board, as with her great foresight and extensive network she helped to bring the DBE to the next level of excellence.

Thank you very much, Eva for your great input to the development of the DBE in the past years!

Because of Eva's resignation we are open for nominations or applications of group leaders to become a member of the DBE's executive board. If you are interested or want to nominate someone, please contact the head of department, philippe.cattin@unibas.ch.



to Prof. Granziera on her SNSF Grant

Prof. Cristina Granziera has been awarded with an SNSF Grant for her project "iLLUMINATe-MS: A Large-scale, Longitudinal, and MolecUlar investigation of IMagINg Biomarkers of Repair ActTvity in Multiple Sclerosis". The project was granted with CHF 800'000 from the SNSF.



on the Early-Career Grant 2024 for Yukiko Tomooka

Yukiko Tomooka from the BIROMED-Lab has been awarded an <u>Early-Career Grant 2024</u> from the ETH Zurich with her project "Structural and modal analysis of the novel miniature intraoral robot and experimental evaluations". Beyond that, Yukiko's Swiss Government Excellence Scholarship has been extended for a further year.



to Esma Tankus on her IBAM NTN Innovation Booster Grant

Esma Tankus from the Swiss MAM group led by Prof. Florian Thieringer received an MIN Innovation Booster for her project on 3D bioprinted osteochondral constructs.



to Dr. med. Benito K. Benitez who has been awarded the Venia Docendi

At the request of the Faculty of Medicine the Regenz granted the Venia Docendi for Dr. med. Dr. med. dent. Dr. sc. med. des. MHBA Benito K. Benitez for oral and maxillofacial surgery. Benito lectures about craniofacial malformations at the University of Basel and also delivers lectures about craniofacial injuries to medical officers in the Swiss Armed Forces. Benito completes his PhD in the <u>Facial and Cranial Anomalies (FCA)</u> research group led by Prof. Andreas Müller.

About us - Highlighted



DBE Annual Report 2023

The DBE proudly presents its 2023 <u>Annual Report</u>. Take a look at it and marvel at the great achievements the DBE Researchers realized last year!



PhD Summer School

The <u>DBE Summer School 2024</u> revolved around «Scientific Writing & Publishing». At the beautiful village Wattwiller in Alsace, France, 25 students from the PhD program in Biomedical Engineering as well as colleagues from Swiss TPH discussed contributions of 14 speakers from a wide range of disciplines in talks and workshops.



DBE PhD Day on Science Communication

30 PhDs from various research groups, had the opportunity to network in a relaxed atmosphere with a workshop about "Science Communication", different games and a barbecue at the end. Check out more at DBE News.

About us – We welcome



Dr. Zarah Walsh-Korb, junior group leader of the new <u>DBE research group Dynamic Biomaterials</u>. Focusing on mechanoresponsive protein complexes, Walsh-Korb and her team aim to create a foundation for the rational design of responsive, nature-inspired materials that can revolutionize biomedical technologies and, eventually, regenerative medicine.



Dr. Marta Maggioni, who recently started as a postdoc in the BAMM (Basel Muscle MRI) group led by PD Dr. Francesco Santini. Marta became interested in the intersection of physics and medicine during her B.Sc. in Physics Engineering at the Politecnico di Milano, which led her to pursue an M.Sc. in Medical Photonics at Friedrich-Schiller University in Jena, Germany. She completed her PhD in Jena, working on MRI sequences and relaxometry in the musculoskeletal system, with a specific interest in tendons and muscles. She is joining the BAMM group as part of a project focused on open-source MRI developments with applications to muscular dystrophies.



Sabine Matuschik, who lately started her PhD in PD Dr. Santini's research group BAMM. Her academic background is multifaceted. She holds a bachelor's degree in physics from the Technical University of Munich and a bachelor's degree in mechanical engineering from the Baden-Wuerttemberg Cooperative State University. Sabine recently completed her master's degree in medical physics at the Heinrich Heine University in Düsseldorf. She conducted her master's thesis focusing on quantitative sodium (23Na) MRI for paraspinal muscle tissue at 7 Tesla. Her research at BAMM will focus on advancing multiparametric MRI methods for the assessment of human skeletal muscle.



Ayşegül Kılıç who started her PhD in Prof. Georg Rauter's BIROMED-Lab. Ayşegül began her academic journey as a medical student but later switched to Electrical and Electronics Engineering at the Middle East Technical University in Ankara, Türkiye, where she completed both her bachelor's and master's degrees. During her master's studies, she focused on the effects of visual feedback and input predictability on human tracking behavior using a target tracking task. She will join the inSEA2SpineBot team as a PhD student to develop a robotic device that measures in situ spine stiffness in adolescent idiopathic scoliosis, contributing to the development of control algorithms.



Dr. Michael Sommerhalder, who started as a postdoc in the BIROMED-Lab led by Prof. Georg Rauter. Michael started working on robot control and computer vision for upperlimb rehabilitation robots during his Masters at ETH Zurich. During his PhD he developed a polymorphic control framework for complex exoskeletons and investigated the interaction strategies between operating therapist, robot, and patient. Michael will join the LAROCARE team to lead the development of a minimally-invasive smart robotic laser arthroscope.

Events



10th DBE Research Day | August 21, 8:45-15:45 | Biozentrum

We invite you to celebrate the 10th DBE Research Day with us, followed by an apéro. The event showcases DBE's progress in bridging the gap between medicine and engineering. Check out our attractive program and don't forget to register here if you like to join!



Annual Meeting of the SSBE | September 5 | ZHAW Winterthur

The 2024 Annual Meeting of the Swiss Society for Biomedical Engineering (SSBE) is a one-day event for exchange between experts from academia, industry, and clinics. Submit your research abstracts until July 15 and <u>register</u> now to be a part of this event which promotes contacts between members and people interested in the field of biomedical engineering.





Symposium 3D Printing & Additive Manufacturing | September 6-7 | FHNW Muttenz Join this 2-in1 pioneering event. The "6th 3D Printing for Life Sciences" symposium will provide an insight into current state of the art of 3D printing in various disciplines of Life Sciences. The "1st European Healthcare Forum for Additive Manufacturing" (EHFAM Former AM Medical Days) will focus on optimizing resources, enhancing networking opportunities, and integrating research, policy, and application. Attendees will engage with diverse experts, form new partnerships, and gain a deeper understanding of the AM healthcare ecosystem. The event is for free for students and researchers from University Hospital Basel, the Department of Biomedical Engineering and FHNW. Please register here.



UKBB Research Day | November 15, 08:30-18:00 | Biozentrum Basel

Save the date and join the UKBB Research Day (University's Children Hospital Basel) in November 2024. The detailed program will follow.

Calls & Research Funding and Deadlines



European Research Council
Established by the European Commission

ERC Starting Grants open | 2025 Call

After several years of exclusion, researchers with a Swiss host institution are again eligible to apply for the <u>ERC Starting Grants</u> this year (2025 Call). Information about training events will follow soon by the Grants Office of the University of Basel. Submission deadline: October 15, 2024.



Call for research grants on neuromuscular diseases

The SWISS FOUNDATION FOR RESEARCH ON MUSCLE DISEASES (FSRMM) calls for grant applications. The aim of the foundation is to support basic, translational and clinical biomedical research related to muscle and neuromuscular diseases in Swiss Institutions, including projects aiming at improving diagnosis of these diseases. Submission Deadline: August 31, 2024.

Postdoc. Mobility

Postdoc. Mobility fellowships support researchers after the doctorate who wish to conduct a research stay abroad. Submission deadline: August 2, 2024.

Bridge Proof of Concept

The extraordinary **BRIDGE** Proof of Concept call is aimed at young researchers with a Bachelor's or a Master's degree. It is being launched in parallel with the regular call for proposals. Submission deadline: September 2, 2024.



Agora

Agora supports projects that prioritise the involvement of a wider public in scientific research. The scheme aims to disseminate knowledge about science and foster dialogue between researchers and society. Submission deadline: September 17, 2024.

Project funding

The <u>project funding</u> scheme enables qualified researchers to independently carry out projects on topics and research objectives of their own choosing. Submission deadline: October 1, 2024.

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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