

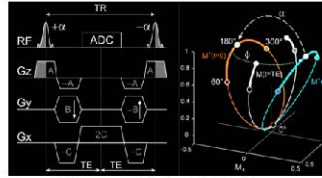
University
of Basel

Department of
Biomedical Engineering

Focal Area Imaging, Modeling & Diagnosis



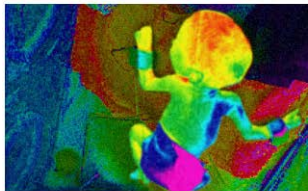
Center for medical Image Analysis & Navigation



Magnetic Resonance Physics & Methodology



Adaptable MRI Technology

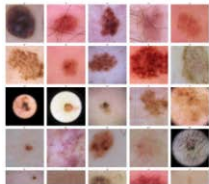


Computational Physiology & Biostatistics

The DBE Focal Area Imaging, Modeling and Diagnosis aims at shaping the future of medical diagnostics by combining unique skills and expertise in the fields of magnetic resonance imaging, X-ray tomography, optics, disease phenotyping, mass spectrometry, big data, deep learning and virtual reality. The research we develop is application-driven, addressing scientific questions that lie at the cross-section between fundamental research and translation to clinical settings.

Research interests in this focal area span a broad spectrum of activities ranging from the development of methods and hardware to advanced software tools for image analysis, navigation, data driven disease phenotyping, and patient tele-monitoring. We continuously reach out to practitioners to enable clinical translation of novel imaging technology, being in adults or children practice or oriented towards forensic medicine.

Key to all research led in this focal area is the leitmotiv that progress in imaging, diagnostic tools and disease phenotyping will foster advances in personalized medicine and provide a deeper understanding of the structure and function of the human body.



Digital Dermatology



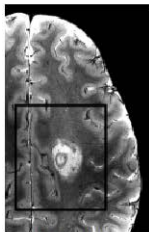
Inst. Forensic Medicine



Translational Medicine Breath Research

Facts and Figures

In June 2019, the Focal Area Imaging, Modeling & Diagnosis consists of 15 research groups and about 60 researchers. They are located at the DBE in Allschwil, the University Hospital, the University Children's Hospital, and at the Institute of Forensic Medicine.



Quantitative BiImaging Group (qbig)



Biomaterials science Center



Human Optics Lab



Translational Imaging in Neurology (ThINk)

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WSS

WERNER SIEMENS-STIFTUNG

