



Scientist Spotlight

Look into //
other disciplines

Maximilian Waldner

Research Group



Latest
Publications



Maximilian Waldner is a clinician scientist with a specialization in gastroenterology. Since the beginning of his scientific career at the Ludwig-Maximilians-Universität München, he has been interested in applications of optical imaging techniques for the evaluation of inflammatory diseases and cancer.

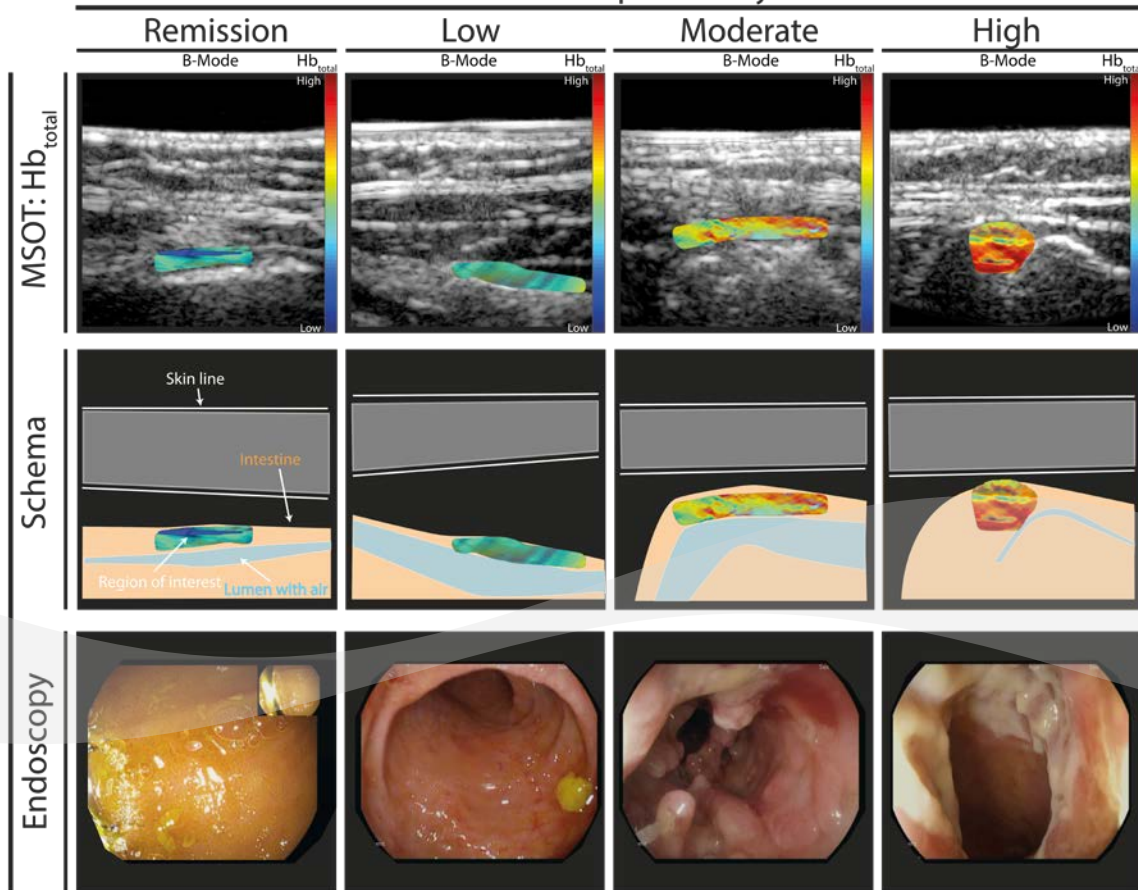
Following his clinical and scientific training in Mainz and Erlangen, he started his own research group as Professor for Functional Imaging in Medicine in Erlangen. His group is interested in exploring new optical techniques to enable the label-free characterization of immune responses in intestinal inflammation and cancer.

His latest publications related to optical technologies cover multispectral optoacoustic tomography on Duchenne muscular dystrophy and inflammatory bowel disease patients. These papers were among the first to show new clinical applications of optoacoustic imaging.

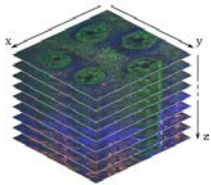
What are the future questions you are working on and what are the particular challenges?

We are currently working on various spectroscopic approaches to aid the diagnosis, characterization and therapeutic management of inflammatory diseases within the gastrointestinal tract. Challenges include the adaptation of existing technologies to the specific scientific question and the interpretation of acquired data. To successfully work on these topics, interdisciplinary research teams are mandatory.

Endoscopic activity



What do you particularly appreciate about Erlangen as a research location?



Erlangen offers a unique environment for translational research on new optical technologies and advanced data analysis methods. This includes SAOT, the Max Planck Institute for the Science of Light, the newly founded Max-Planck-Zentrum für Physik und Medizin as well as the Department for Artificial Intelligence in Biomedical Engineering (AIBE) at the Faculty of Engineering.

What advice can you give to young people who are interested in studying optics-related subjects in Erlangen?

Take advantage of the possibilities offered by the wide range of applications for optical technologies Erlangen offers. Look into other disciplines like biomedicine or data analysis.