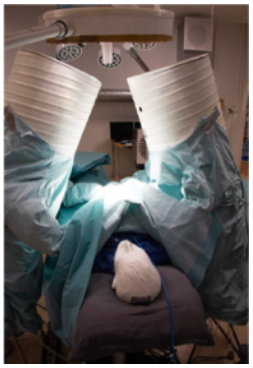
NorMIT
Norwegian Centre for Minimally Invasive Image Guided Therapy and Medical Technologies

NORMIT WISH YOU A GOOD SUMMER!

NEWSLETTER

Opening of a new operating room at NTNU in Trondheim!

In the first week of June, The Institute of Energy and Process technic at NTNU in cooperation with the Operating Room Of The Future opened a laboratory at Gløshaugen Campus. The laboratory is made as a real operating theatre and can be used to study air flow and ventilation systems. Jan Gunnar Skogås gives the professor Lars Erik Bakken the Operating Room Of The Futures door sign as a symbol of the collaboration and integration between NTNU and St. Olavs hospital. We are thrilled to have the opportunity to work together to improve the air quality and reduce the hospital infections!



«Surgeons» at work in the lab. Photo: NTNU

A couple of ongoing projects using NorMIT infrastructure

Professor Lasse Løvstakken at NTNU, ISB. Photo: NTNU

At NTNU Department of Circulation and Image Diagnostics, NorMIT infrastructure is used in research. They use Verasonics's ultrasound machine in various projects dealing with cardiovascular imaging. «High frame rate vector-Doppler imaging for cardiovascular disease, by Ingvild Kinn Ekroll, and Jørgen Avdal is one example and article on this project is now approved for the IEEE International ultrasound symposium.

Furthermore, it is used in projects related to imaging of blood flow "High frame rate cardiac color flow imaging", v / Alessandro Ramalli and Lasse Løvstakken. Here too, article is approved for the IEEE International ultrasound symposium.

Professor Catharina D Davies at NTNU, Physics dpt. Photo: NTNU

Catharina D Davies at NTNU, department of Physics reports that the NorMIT ultrasound infrastructure from FUS instruments In autumn 2018 and spring 2019, has been used by PhD fellow Stein-Martin Fagerland to treat spontaneous prostate tumors that grow in mice. The mice were injected with nanoparticles with the cytotoxic cabazitaxel and the microbubble sonovue and prostate received ultrasound treatment. We have previously done similar research with tumors that grow subcutaneously and had very good results and wanted to proceed with a more clinically relevant tumor model.

Professor Bjørn Angelsen at NTNU, ISB. Photo: NTNU

Bjørn Angelsen reports that at NTNU ISB, they have used the NorMIT infrastructure called SURF Technology in the PhD for Johannes Kvam. He defended his thesis on May 6 with a thesis showing new and interesting methods for tissue characterization by the two-frequency method. In this connection, Johannes and others have developed a lot of new sound waves for the ultrasound scanner, which is available for future projects.

The support from NorMIT has been and will be central to this activity.

NorMIT infrastructure

Trondheim

Oslo

The NorMIT infrastructure in Trondheim and Oslo can be booked for research. Enter normit.no , select your institution and book now! We are a national research infrastructure to serve researchers with top modern equipment!

Ragnhild Marie Undseth, MD, PhD, radiologist and head of radiology at The Intervention Centre,

Ragnhild M Undseth, MD, PhD is the group leader of Magnetic Resonance-Guided High-Intensity Focused Ultrasound Research groupand and radiologist and head of radiology at The Intervention Centre at the NorMIT node in Oslo.

At The intervention Centre, NorMit infrastructure is used for clinical research in several settings.In our new hybrid suites, clinical studies are performed both on humans and animals (pigs). Our CT scanner, with sliding gantry solution, is used for perioperative procedures in angiographic settings, to monitor thermal ablation of liver tumors to optimize the treatment. Our advanced MRI labs are used by at least 10 different research groups including one that is assessing the properties of glioblastomas during MRI-guided per operative brain surgery. Non-invasive surgery is performed on uterine fibroids using Magnetic Resonance-Guided High-Intensity Focused Ultrasound (HIFU).
This fall we are expanding our HIFU activity to include the treatment of abnormal presence of endometrial tissue within the myometrium (adenomyosis).

Go to normit.no for more information!

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