



FROM VISION TO DECISION

NEWSLETTER YEAR 2, NUMBER 4

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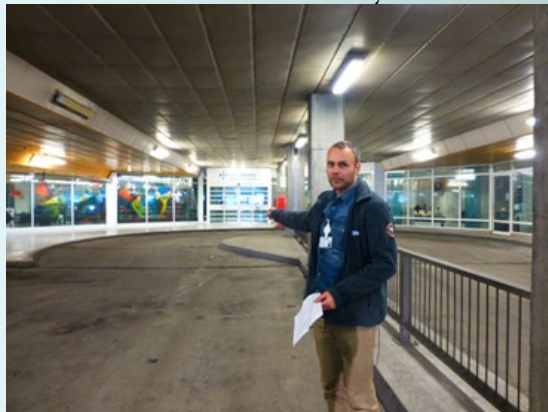
5021 Bergen, Norway

Dear MedViz Supporter

The headline news in this number is about the new opportunities for improved diagnostic follow-up of clinical patients and also for advanced imaging research. We have also started a new series of interviews with PhD students and young researchers in the MedViz research cluster. In this number we have had the pleasure of meeting **PhD student MD Judit Haász**, who is carrying out her brain research in cooperation with three different departments at UiB. Finally we have also visited the NARMA (Norwegian Association for Research Managers and Administrators) **Conference at Gardermoen**.

News: Unique opportunities for MRI research

According to Department Director Aslak Aslaksen there is currently intense activity at the Department of Radiology, Haukeland University Hospital (HUH), to plan the installation of two novel, state-of-the-art 3Tesla Magnetic Resonance Imaging (MRI) systems. The technical project leader Tommy Vassnes from Technical Department, HUH, shows us the area in the Northern part of the parking deck in Sentralblokken, HUH, where space is allocated for the new equipment. -We have met some challenges in finding an appropriate area, both suitable according to the specifications from the supplier in terms of insulation from the surroundings and to the weight tolerance in the building, Vassnes states. -The placement of the equipment should also fulfill the requirements for the medical team of users and of course be easily accessible to the patients.



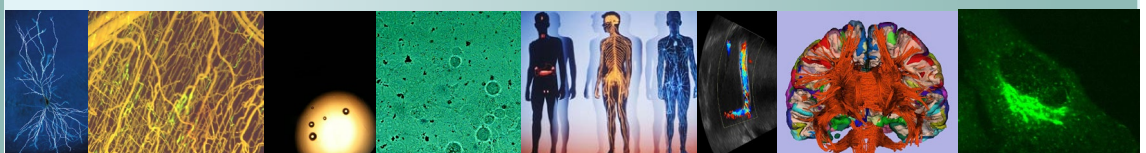
Technical Project leader Tommy Vassnes shows the Northern part of the parking deck in Sentralblokken where space is allocated for the two new MRI machines. See detailed drawings [here](#).

The equipment has come in place due to a generous private donation by Trond Mohn through the Bergen Medical Research Foundation (BMFS). -This opens unique opportunities for improved diagnostic follow-up of clinical patients including monitoring of treatment effects. Furthermore, it offers excellent opportunities for advanced imaging research, says Head of Research Coordination Renate Grüner at Department of Radiology, HUS.

cmr



HELSE BERGEN
Haukeland University Hospital



For many reasons MRI is the method of choice in imaging research. MRI provides excellent soft tissue contrast and is thus extremely sensitive to abnormal changes in tissues. MRI provides structural, physiological and molecular imaging within the same imaging session. MRI can easily be repeated (no ionising radiation is involved) which is of high importance in longitudinal studies particularly in children or healthy control participants. The enthusiasm for high magnetic field strengths (3Tesla versus 1.5Tesla) is due to the fact that the magnitude of the MRI signal increases linearly with field strength, hence allowing for better spatial coverage, faster acquisitions or higher sensitivity.

In Bergen, imaging scientists and their close collaborators in the clinic and academia have over many years proven that they can utilize advanced imaging equipment through publishing their research results in highly recognized international journals and manage to compete for advanced research grants (ERC). In particular, the Bergen fMRI group, Head Prof. Kenneth Hugdahl, has shown the potential of utilizing high field MRI as a primary research tool (the current 3Tesla system was installed in 2003), and will continue to explore and develop novel methodology on the new MRI systems in their ongoing research. Once installed it is foreseen that the new MRI systems will play a pivotal role in the imaging research in Bergen, especially in the fields of advanced neuroimaging, paediatric imaging and multimodal cancer imaging. -Thus, the frontiers of current knowledge will continue to be challenged from Bergen now that state-of-the-art equipment of utmost importance is coming in place, says Renate Grüner.

News: Eulerian Video Magnification for Revealing e.g. Baby breathing

<http://people.csail.mit.edu/mrub/vidmag/>

<http://www.nrk.no/vitenskap-og-teknologi/1.10932731>

Late events

15.01.2013

The MedViz Conference 2013 in retrospective.

<https://www.thieme-connect.de/ejournals/pdf/10.1055/s-0032-1319355.pdf>

16.-17.04.2013

The **NARMA** (Norwegian Association for Research Managers and Administrators) Conference took place at Gardermoen this week.

Upcoming events

25.04.2013

MedViz Walk&Talk goes to Nattlandsfjellet. We will be leaving in private cars at 16:00 from the Northern Exit in Sentralblokken. Please bring some food and proper clothing. The MedViz Walk&Talk is mostly informal talking during slow walking. Open to everyone!

26.04.2013

Visual Computing Forum talk at the Høyteknologisenteret, UiB or at Vil Vite senteret.

30.04.2013

Deadline for applications to generate a new MedViz project. See our **advertisement** on page 5.

22-24.05.2013

The **Nordic Congress of the Joint Societies of Radiology, Radiography and Medical Physics** will take place in Bergen on 22-24 May 2013. With the aim to stimulate participation by PhD candidates from other Norwegian cities, MedIm – Norwegian Research School in Medical Imaging will provide a limited number of travel and accommodation grants for this event. The MedIm support will also cover the registration fee. See more details in the MedViz Newsletter from March.

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