



4<sup>th</sup> Annual Trondheim MRI Seminar

ISMIRM Nordic Chapter Meeting

Clinical 7T –

Nordic MRI research -

From brain to body

in a changing world

## Program

# October 24-25 2018

Kvinne-Barn Senteret – KBA, St. Olavs Hospital

Trondheim

We proudly present a team of international speakers from the US, UK, The Netherlands, Finland, Sweden and Norway

 **NTNU**  
Norwegian University of  
Science and Technology

 **ST. OLAVS HOSPITAL**  
TRONDHEIM UNIVERSITY HOSPITAL

 **ISMIRM ONE**  
COMMUNITY  
FOR CLINICIANS  
AND SCIENTISTS

 **SIEMENS**  
Healthineers

  
NordicNeuroLab

 **NASJONAL KOMPETANSETJENESTE** ISMIRM  Nordic Chapter  
for funksjonell MR

 **PHILIPS**

# 4th Annual Trondheim MRI Seminar and ISMRM Nordic Chapter Meeting

October 24 2018

- 08:00 – 16:00 Clinical 7T – From brain to body  
@ Kvinne-Barn-senteret, St. Olavs Hospital
- 16.00 – 18.00 Social gathering  
@ Trondheim's Science Centre, Vitensenteret  
Or a short walk through the historic city of Trondheim
- 19:00 **Dinner @ Hotel Scandic Nidelven**



October 25 2018

- 08:00 – 16:00 Nordic MRI research - in a changing world  
@ Kvinne-Barn-senteret, St. Olavs Hospital

Note: @ 14:30: Vote for the best poster/oral abstract presentation

4<sup>th</sup> Annual Trondheim MRI Seminar  
 Clinical 7T – From brain to body  
 October 24 2018

0800-08.30	Registration, coffee
08.30-09.00 Chair: Tone F. Bathen	<b>Opening by Gunnar Morken</b> Director Research, Innovation and Education NTNU/St. Olavs Hospital  <i>MRI in Trondheim – A short retrospect and the road leading to clinical 7T MRI</i> Prof. Olav Haraldseth
09.00-09.40 Chair: Asta Håberg	<i>fMRI and grid cells</i> Prof. Christian Döllner, NTNU
09.40-10.20	<i>7T MRI in neuroradiology, present practices and future potential</i> Prof. Thomas P. Naidich, Mount Sinai, USA
10.20-10.40	BREAK
10.40-11.20 Chair: Asta Håberg	<i>The Swedish National 7T facility: status after three years</i> Researcher Karin Markenroth Bloch, Lund University
11.20-12.00	<i>From sounds to words: Examining the dynamic in effective connectivity during speech perception</i> Prof. Karsten Specht, University of Bergen
12.00-13.00	LUNCH
13.00-13.40 Chair: Tone F. Bathen	<i>Towards clinical metabolic imaging at 7 Tesla</i> Assist. Prof. Jannie Wijnen, UMC Utrecht
13.40-14.20	<i>Ultra-high field MR in body-oncology</i> Associate Professor Tom Scheenen, Radboud UMC
14.20-14.40	BREAK
14.40-15.20 Chair: Pål Erik Goa	<i>Sequences for human neuroimaging at 7T and beyond</i> Assist. Prof. Benedict Poser, Maastricht University
15.20-16.00	<i>7T <sup>31</sup>P MRS to study metabolism</i> Professor Chris Rodgers, University of Cambridge
16.00 -	<b>Practical information; Dinner and Social activities</b> Tone F. Bathen and Neil P. Jerome

# ISMRR Nordic Chapter Meeting

## Nordic MRI research - in a changing world

### October 25 2018

0800-08.30	Registration, coffee
08.30-08.40	Welcome by Karin Markenroth Bloch
08.40-09.10	<p><b>Session personalized medicine (Chair: Helle J. Simonsen)</b></p> <p><i>Precise and individualized stimulation medicine – the role of magnetic resonance imaging to guide therapeutic brain stimulation</i></p> <p>Prof. Hartwig Roman Siebner, Hvidovre Hospital, University of Copenhagen</p>
09.10-09.40	<p><i>Multimodal brain characterization: the key for precision medicine in aging and dementia</i></p> <p>Prof. Carl-Johan Boraxbekk, Umeå University</p>
09.40-10.00	Sponsor presentations (Siemens Healthineers and Philips)
10.00-10.30	BREAK and poster presentations
10.30-11.00	<p><b>Session Big Data/Deep Learning (Chair: Renate Gruner)</b></p> <p><i>From unstructured (MRI) data to medically relevant information</i></p> <p>Simon Kohl, PhD student in Computer Science, German Cancer Research Center</p>
11.00-11.30	<p><i>“Radiomics”</i></p> <p>Prof. Radka Stoyanova, University of Miami</p>
11.30-12.00	Oral <b>abstract presentations</b> - see program next page
12.00-13.00	LUNCH and poster presentations (12.30 – 13.30)
13.00-14.30	Oral <b>abstract presentations</b> - see program next page
14.30-14.40	Voting time / Break
14.40-15.10	<p><b>Session New MRI contrast mechanisms (Chair: Marius Widerøe)</b></p> <p><i>New contrast mechanisms in MRI for quantitative imaging of articular cartilage</i></p> <p>Dr. Mikko J. Nissi, University of Eastern Finland</p>
15.10-15.40	<p><i>Cerebral perfusion and oxygen consumption during hypoxic exposure in patients with obstructive sleep apnea and freedivers</i></p> <p>Dr. Mark Bitsch Vestergaard, Post Doc, Rigshospitalet, Copenhagen</p>
15.40-16.00	<b>Announcement of prize winner - Adjourn</b>



# ISMRR Nordic Chapter Meeting

## Nordic MRI research - in a changing world

### *Abstract presentations*

October 25 2018

10.00-10.30	BREAK – poster presentations in the lobby
11.30-12.00	Oral abstract presentations – part I <i>Detection of lentiviral HSV-TK/GCV therapy in C6 Glioma using hyperpolarized [1-13C] pyruvate by <b>Riikka Nivajärvi</b>, University of Eastern Finland</i>  <i>Multicolor metabolic quantitative CEST (mmqCEST): high resolution imaging of brain metabolites by <b>Vitaliy Khlebnikov</b>, University Medical Center Utrecht, the Netherlands</i>
12.00-13.00	LUNCH
13.00-14.30	Oral abstract presentations – part II <i>The impact of multimodal 7T MRI in presurgical evaluation of epilepsy patients by <b>G. Opheim</b>, Neurobiology Research Unit, Rigshospitalet, Copenhagen, Denmark.</i>  <i>Effects of sampling rate in Dynamic Contrast Enhanced MRI of the TMJ in a small group of children by <b>Lea Sjurine Starck</b>, University of Bergen, Norway</i>  <i>Clinical impact of MR-based attenuation correction in dementia evaluation with 18F-FDG PET/MRI by <b>Silje Kjærnes Øen</b>, Norwegian University of Science and Technology, NTNU, Norway</i>  <i>Effects of melatonin treatment after neonatal hypoxic-ischemic brain injury in rats – a long term MRI study by <b>Axel K.G. Nyman</b>, NTNU, Trondheim University Hospital Norway</i>  <i>A quality control system for automated prostate segmentation on T2-weighted MRI by <b>Mohammed R. S. Sunoqrot</b>, NTNU, Norway</i>  <i>Rotating Frame Relaxation Time Mapping for Cardiac Magnetic Resonance Imaging by <b>Timo Liimatainen</b>, University of Oulu, Finland</i>
15.40-16.00	All abstract and poster presenters on stage - Announcement of prize winner Adjourn