



ISMIRM BENELUX CHAPTER

Sixth annual meeting
20th January 2014
Maastricht

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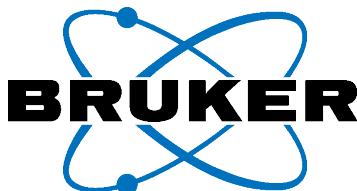
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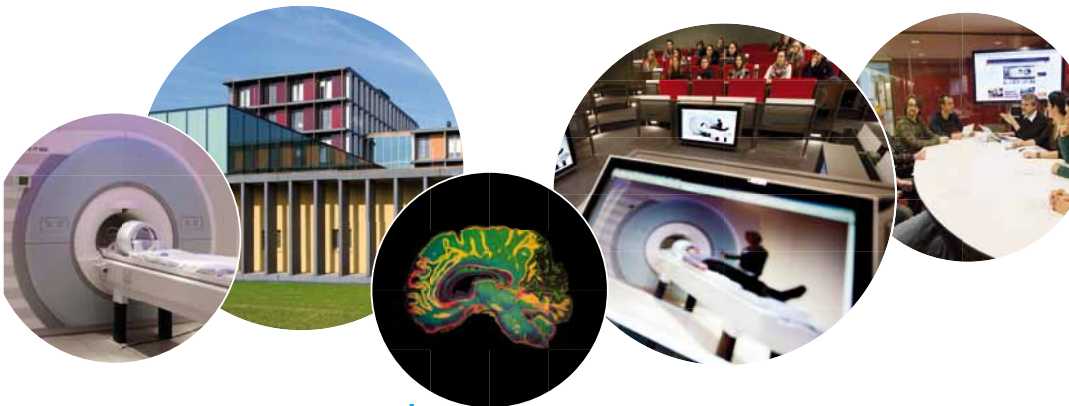
What elements are required to enable advances in imaging?

- ☐ Open access
- ☐ State-of-the-art technology
- ☐ Network of experts in methodology and analysis
- ☐ Strong local clinical research community
- ☐ Availability of technical support
- ☐ Willingness to collaborate
- ☒ **ALL OF THE ABOVE**

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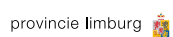
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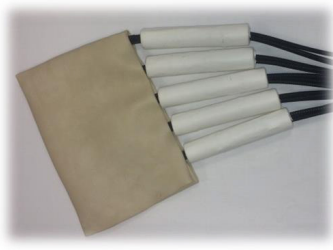
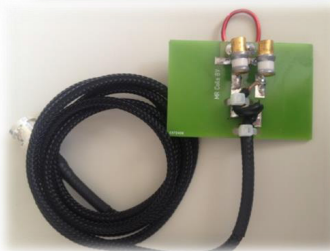
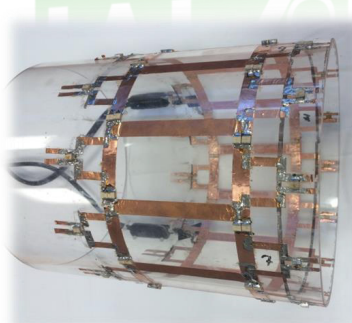
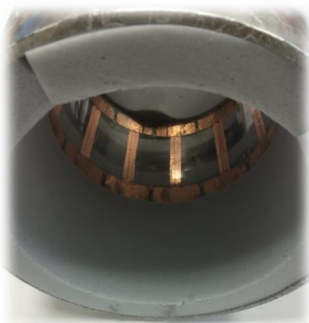
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Dear Participant,

We would like to welcome you to the sixth annual meeting of the ISMRM Benelux Chapter, which is being held at the Amrâth Grand Hotel de l'Empereur in Maastricht. The Grand Hotel is housed in a monumental Jugendstil building and is located in the historic city centre of Maastricht. We hope that you will enjoy the nice mixture of history and modernity of the environment and that such combination will inspire great ideas for new magnetic resonance techniques in medicine and biology.

The main aim of the meeting is to work and think together. As a result, new projects and collaborations will develop within a larger community to achieve much bigger advancements in the field of magnetic resonance imaging. During the meeting you are provided with different ways to share knowledge and ideas within the community. Firstly, there are 4 vibrant parallel sessions during which young investigators get the opportunity to present their great scientific work. In order to meet the interests of everyone, we divided the sessions into more technical (spectroscopy, MR methods, high field) and clinically oriented (cancer, preclinical, cardiovascular, perfusion, neuro) topics. Furthermore, at the end of each morning parallel session, there are the poster teasers. These are meant to give researchers a chance to persuade participants to pay a visit to their poster and exchange thoughts.

Additionally, next to an extensive scientific program, there is also the opportunity to socialize and network during the breaks and lunch, with the option to keep the discussion going over drinks and dinner. We encourage you to take advantage of all these opportunities to strengthen your network and to exchange ideas with the other researchers. We hope that many new interesting collaborations can develop during the meeting and lead to great scientific innovations.

Lastly, we would like to thank the following people that made this meeting possible: our sponsors, for their generous contributions; the ISMRM Benelux Chapter board, for their support; the reviewers, for rating the abstracts; the chairmen, for moderating the scientific sessions and, most importantly, the authors of the 115 abstracts we received this year. I would also like to thank my fellow organizers for their hard work: it has been a great adventure and you are the best team I could have possibly hoped for.

On behalf of the organizing committee 2014,

Matteo Bastiani

Chair ISMRM Benelux Organizing Committee 2014

ISMRM Benelux 2014

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Maarten Naeyaert, Bio-Imaging Lab, Antwerp/BE *Communication & Registration*

!!! GET INVOLVED !!!

Join the organizing committee for next year's meeting!

If interested, please contact this year's organizing committee (meeting2014@benelux-ismrm.org) or the members of the board.

Don't forget to join the 'ISMRM Benelux Chapter' discussion group on **LinkedIn** !!!

Program Overview

09.30	Welcome with Coffee / Tea
10.00	Plenary Program: Welcome and Introduction - Ballroom
10.15	Start Parallel Session 1 (Followed by poster teasers) Cancer - Josephine Preclinical - Ballroom
11.15	Break
11.45	Start Parallel Session 2 (Followed by poster teasers) Cardiovascular - Josephine Spectroscopy - Ballroom
12.30	Start Poster Session - Marie Louise (runs until 14:30)
13.00	Lunch Visit sponsors
13.45	Annual Members Meeting - Ballroom
14.30	Start Parallel Session 3 Perfusion - Josephine MR Methods / RF Engineering - Ballroom
15.45	Break
16.15	Start Parallel Session 4 High Field - Josephine Neuro - Ballroom
17:30	Reception with live music
18:00	Dinner

Josephine

Cancer

Moderators of Oral Session

Tom Scheenen

Astrid van Lier

Radboud University Medical Center, Nijmegen, The Netherlands University Medical Center Utrecht, Utrecht, The Netherlands

PRES1-01 Tom Schreurs - Quantitative multi-parametric MRI of tumor response to photodynamic therapy

Biomedical NMR, Department of Biomedical Engineering, Eindhoven University of Technology, Eindhoven, the Netherlands

PRES1-02 Eline Vos - Multiparametric MR imaging for the assessment of prostate cancer aggressiveness at 3 Tesla

Department of Radiology, Radboud University Nijmegen Medical Center, Nijmegen, The Netherlands

PRES1-03 R. Klaassen - Motion correction of high temporal 3T Dynamic Contrast Enhanced MRI of pancreatic cancer - preliminary results

Department of Oncology, Academic Medical Center, Amsterdam, The Netherlands

PRES1-4 Florence Colliez - Is R1 of lipids related to pO2 ? Lessons from two tumor models

Louvain Drug Research Institute, Biomedical Magnetic Resonance Research Group, Université Catholique de Louvain, Brussels, Belgium

Poster teasers:		
PT1-03	PT2-07	PT4-01
PT2-01	PT3-02	PT4-03
PT2-03	PT3-05	PT4-04
PT2-05	PT3-06	PT4-05

Ballroom

Preclinical

Moderators of Oral Session

Gustav Strijkers

Technical University Eindhoven, Eindhoven, The Netherlands

Benedicte Descamps

Gent University, Gent, Belgium

PRES2-01 Tine Verreet - In vivo characterization of morphological changes in prenatally irradiated mice using MRI

Radiobiology Unit, Molecular and Cellular Biology, Belgian Nuclear Research Centre, SCK•CEN, Mol, Belgium

PRES2-02 Lisbeth Van Ruijssevelt - Auditory Functional MRI in Awake Zebra Finches: a Feasibility Study

Bio-Imaging Lab, Department of Biomedical Sciences, University of Antwerp, Antwerpen, Belgium

PRES2-03 Jules L. Nelissen - A novel MR compatible indentation setup to study the etiology of pressure ulcers and related deep tissue injury

Biomedical NMR, Department of Biomedical Engineering, Eindhoven University of Technology, Eindhoven, The Netherlands

PRES2-04 Ting Yin - Assessment of pancreatic islets using optical projection tomography and magnetic resonance imaging

Biomedical MRI unit, Department of Imaging and Pathology, KU Leuven, Belgium; Molecular Small Animal Imaging Center (MoSAIC), KU Leuven, Belgium

Poster teasers:

PT4-06	PT4-11	PT5-06
PT4-07	PT5-01	PT6-01
PT4-09	PT5-03	PT6-04
PT4-10	PT5-04	PT6-06

Josephine

Cardiovascular

Moderators of Oral Session

Bastiaan van Nierop

University Medical Center Utrecht, Utrecht, The Netherlands

Jaco Zwanenburg

University Medical Center Utrecht, Utrecht, The Netherlands

PRES3-01 Paul de Heer - Improved Cardiac 1H-MR Spectroscopy at 3T: Effect of High Permittivity Materials

C.J. Gorter Center for High Field MR, Department of Radiology, Leiden University Medical Center, Leiden, The Netherlands

PRES3-02 Marloes Marteijn - Monitoring the efficacy and retention of collagen I-Matrigel for treating myocardial infarction

Biomedical NMR, Department of Biomedical Engineering, Eindhoven University of Technology, Eindhoven, The Netherlands

PRES3-043 Merih Cibis - Comparison between magnitude and direction of 4D phase contrast MRI based and computational fluid dynamics based wall shear stress calculations in healthy carotid bifurcations

Biomedical Engineering, Erasmus Medical Center, Rotterdam, The Netherlands

Poster teasers:

PT6-07	PT7-05	PT7-09
PT6-09	PT7-06	PT7-10
PT6-10	PT7-07	PT7-11
PT7-02	PT7-08	PT7-12
PT7-04		

Ballroom

Spectroscopy

Moderators of Oral Session

Jannie Wijnen-Peters

University Medical Center Utrecht, Utrecht, The Netherlands

Firat Kara

University of Antwerp, Antwerp, Belgium

PRES4-01 Lucas Lindeboom - Resting acetylcarnitine concentration in skeletal muscle, as measured with long TE 1H-MRS, is associated with insulin sensitivity

Departments of Human Biology and Radiology, MUMC+, Maastricht, The Netherlands

PRES4-02 Tessa van de Lindt - Fast water suppression for high resolution MRSI by frequency selective spokes pulses at 7T

Image Sciences Institute, University Medical Center Utrecht, Utrecht ,The Netherlands

PRES4-03 Sharon Janssens - Effect of caloric and non-caloric sweeteners on liver lipid metabolism in rats

Biomedical NMR, Department of Biomedical Engineering, Eindhoven University of Technology Eindhoven, The Netherlands

Poster teasers:		
PT7-13	PT8-06	PT8-15
PT8-01	PT8-09	PT8-16
PT8-04	PT8-10	PT8-18
PT8-05	PT8-14	PT8-21

Josephine

Perfusion

Moderators of Oral Session

Jacobus Jansen

Maastricht University Medical Center, Maastricht, The Netherlands

Elisabeth Jonckers

University of Antwerp, Antwerp, Belgium

PRES5-01 Dennis F R Heijtel - Accuracy and precision of pseudo-continuous arterial spin labeling perfusion during baseline and hypercapnia: a head-to-head comparison with 15O H2O positron emission tomography

Department of Radiology, Academic Medical Center, Amsterdam, the Netherlands

PRES5-02 Sophie Schmid - Comparison of velocity and acceleration selective arterial spin labeling with 15O H2O positron emission tomography

C.J. Gorter Center for High Field MRI, Radiology, Leiden University Medical Center

PRES5-03 Hanke J. Schalkx - Pre- and postprandial arterial and portal venous liver perfusion using selective spin labeling MRI with Look-Locker read-out

Dep. Radiology, University Medical Center, Utrecht, The Netherlands

PRES5-04 Harm J van de Haar - Increased Blood-Brain Barrier Leakage in Alzheimer's Disease Detected with Dual Time-Resolution Dynamic Contrast Enhanced MRI

University of Maastricht, Maastricht, The Netherlands

PRES5-05 Frank Simonis - Determination of tissue thermal parameters from RF heating monitored by MR thermometry

University Medical Center Utrecht, The Netherlands

PRES5-06 Eidrees Ghariq - The Dependency of Cerebral Blood Flow on End-tidal CO2 Pressur

C.J. Gorter Center for High Field MRI, Department of Radiology, Leiden University Medical Center (LUMC), Leiden, Zuid-Holland, Netherlands

Ballroom

MR Methods RF Engineering

Moderators of Oral Session

Benedikt Poser

Maastricht University, Maastricht, The Netherlands

Jan Willem Beenakker

Leiden University Medical Center, Leiden, The Netherlands

PRES6-01 Rik PM Moonen - A comparison of two sequences for spectral imaging of 19F-containing emulsions

Eindhoven University of Technology

PRES6-02 Gwendolyn Van Steenkiste - Super-resolution reconstruction of diffusion parameters from multi-oriented diffusion weighted images

Visionlab, University of Antwerp, Antwerp, Belgium

PRES6-03 Ellis Beld - Automated correction method allowing phase-based detection of contrast enhancement in DCE-MRI

Department of Radiotherapy, University Medical Center Utrecht, Utrecht, The Netherlands

PRES6-04 Stefano Mandija - Characterizing electrical interactions of tissue with time-varying gradient fields: simulations and measurements

Image Sciences Institute, University Medical Center Utrecht, Utrecht, The Netherlands

PRES6-05 Rasim Boyacioglu - Improving sensitivity and specificity for RS fMRI using multiband multi-echo EPI at 7T

MR Techniques in Brain Function, Donders Institute for Brain, Cognition and Behaviour, Nijmegen, The Netherlands

PRES6-06 Houshang Amiri - Sensitivity and dual-label detectability of 19F MRI: an optimized clinical setup for cell tracking at 3T

Department of Radiology, Radboud University Medical Centre, Nijmegen, The Netherlands

Josephine

High Field

Moderators of Oral Session

Maarten Versluis

Leiden University Medical Center, Leiden, The Netherlands

Anna Andreychenko

University Medical Center Utrecht, Utrecht The Netherlands

PRES7-01 Wyger Brink - Implications of Dielectric Pads on Dual-Transmit SAR Behaviour

Leiden University Medical Center

PRES7-02 Mathijs Buijs - Cortical Phase Shifts in Healthy Aging at 7 Tesla

Department of Radiology, C.J. Gorter Center for High Field MR, Leiden University Medical Center, Leiden, The Netherlands

PRES7-03 Michel Italiaander - High SNR bilateral breast MRI with a dual transmit, 26-channel receive RF coil with simultaneous 31P CSI at 7 tesla

MR Coils BV, Drunen, Netherlands

PRES7-04 Tijl van der Velden - Correction of B0 field fluctuations in the breast at 7 tesla by fitting a dipole field to field probe data

University Medical Center Utrecht Utrecht The Netherlands

PRES7-05 Mark W. J. M. Gosselink - High resolution T1p-mapping in human wrist cartilage with a SAR and SENSE optimized coil at 7T

Imaging Division, University Medical Center Utrecht, Utrecht, Utrecht, The Netherlands

PRES7-06 Edmond Balidemaj - Experimental electric field and dielectric tissue property mapping using a regularized CSI-EPT reconstruction method

Radiotherapy, Academic Medical Center, Amsterdam

Moderators of Oral Session

Alard Roebroek

Maastricht University, Maastricht, The Netherlands

Carson Ingo

Leiden University Medical Center, Leiden, The Netherlands

PRES8-01 Raf H.M. van Hoof - Comparison of various Dynamic Contrast-Enhanced MRI model parameters in carotid plaques

Department of Radiology, Maastricht University Medical Center, Maastricht, The Netherlands and Cardiovascular Research Institute Maastricht (CARIM), Maastricht University, Maastricht, The Netherlands

PRES8-02 Frank C.G. van Bussel - Hippocampal Intravoxel Incoherent Motion Imaging in Type 2 Diabetes Mellitus and memory impairment

Radiology, Maastricht University Medical Center

PRES8-03 Thibo Billiet - Investigating the long-term effects of systemic chemotherapy on brain white matter using multi-shell diffusion MRI and myelin water imaging

Translational MRI, Imaging & Pathology, KU Leuven & Radiology, University Hospitals Leuven, Leuven, Belgium; Medical Imaging Research Center, Leuven, Belgium

PRES8-04 Daan Christiaens - Global tractography of multi-shell diffusion data

ESAT-PSI, Department of Electrical Engineering, KU Leuven, Leuven, Belgium

PRES8-05 Jasper Verbree - Are blood flow measurements by means of Transcranial Doppler valid under different levels of end-tidal CO₂? A high resolution MRI study at 7 Tesla of the middle cerebral artery diameter under hypo- and hypercapnic conditions

C.J. Gorter Center for High Field MRI, Department of Radiology, Leiden University Medical Center, Leiden, The Netherlands

PRES8-06 Alex Bhogal - Investigating BOLD signal properties under targeted hyperoxia combined with progressive hypercapnia at 7T

University Medical Center Utrecht

Notes

Notes
