Program Overview

9:00 **Registration and Coffee**

9:30 **Morning program** *Auditorium North*

- 9:30 **Welcome**
- 9:45 **Plenary Talk: A. Heerschap** - Some landmarks in the early penetration of MR in the Benelux
- 10:15 **Power Poster Presentations**

11:00 **Coffee Break** sponsored by MR SOLUTIONS

11:30 **Parallel Session 1: Oral presentations**

- **Diffusion** *Auditorium North*
- **Cancer** *Auditorium South*

12:30 **Parallel Session 2: Workshops** *Rooms specified on page 7*

- **ISMRM Benelux** - Annual Members Meeting
- **Bruker** - High resolution PET insert for high field preclinical MRI: comparison between single and three rings systems using 7T field strength
- **Philips** - Philips MR Research tools
- **Scannexus** - How to make complicated seem easy: 9.4T MRI for the non-expert user
- **NWO** (former STW) - How to get money?

13:00 **Lunch (continues during poster session)**

13:30 **Poster Session**
13:30 - 14:00 odd-numbered posters present
14:00 - 14:30 even-numbered posters present

14:30 **Parallel Session 3: Oral presentations**

- **Neuro** *Auditorium North*
- **MR Methods** *Auditorium South*

16:00 **Coffee Break** sponsored by GE Healthcare

16:30 **Parallel Session 4: Oral presentations**

- 16:30 **Spectroscopy** *Auditorium North*
  Perfusion *Auditorium South*
- 17:15 **Clinical Studies** *Auditorium North*
  RF Engineering *Auditorium South*

18:00 **Award Ceremony** *Auditorium North*

18:15 **Reception**

19:00 **Walking Dinner** (Registration Required)

Power Posters

Moderators of Power Poster Session

Paul de Heer
AMC Amsterdam

Jan-Willem Beenakker
Leiden UMC

PP-001 Dimitri Welting

Sodium MRI of the thyroid gland at 7 tesla

Imaging Division, University Medical Center, Utrecht, NL

This work shows the potential of sodium imaging of the thyroid gland in vivo at 4mm isotropic resolution integrated to 1H imaging. An optimized setup combined with tuned sequences and B1 corrections enables quantitative sodium mapping of the thyroid gland and its surrounding tissue. The thyroid gland has the highest concentration of sodium in this part of the neck, estimated to be 64.5 mmol/L in vivo. Sodium imaging might open up the detection of (lymph node) metastases, as they are expected to exceed the healthy concentration of sodium detected in the head and neck region.

PP-002 Stephan Meesters

Stability metrics for optic radiation tractography: towards damage prediction after resective surgery

Department of Mathematics & Computer Science, University of Technology Eindhoven, NL
Academic Center for Epileptology Kempenhaeghe & Maastricht UMC+, Heeze, NL

An accurate delineation of the optic radiation (OR) is useful in reducing the risk of a visual field deficit after temporal lobe resective surgery. However, tractography, especially of the probabilistic kind, is prone to generate spurious (false-positive) streamlines that are poorly aligned with the surrounding bundle. Fiber-to-bundle coherence measures are applied to identify and remove spurious fibers, which together with test-retest parameter estimation can provide a reconstruction of the OR that is robust to the stochastic realization of probabilistic tractography. Pre- and post-operative comparison of the OR is performed for epilepsy patients to quantify the accuracy of damage prediction.

PP-003 Jolanda Spijkerman

Quantitative measurements of perivascular spaces at 7T, using a semi-automatic tracking method

Department of Radiology, University Medical Center Utrecht, Utrecht, NL

Currently, perivascular spaces (PVS) are mostly investigated with qualitative measures. In this work, PVS in the centrum semiovale were tracked using a semi-automatic method, and PVS length and tortuosity were determined. Univariate and multivariate linear regression was performed for age, number of tracked PVS, PVS length, and PVS tortuosity. The results show that quantitative assessment of PVS beyond counting is feasible, and a significant positive association between PVS length and the number of tracked PVS was found. These quantitative measurements may be more suitable than qualitative methods to investigate PVS.

Power Posters

Moderators of Power Poster Session

Paul de Heer
AMC Amsterdam

Jan-Willem Beenakker
Leiden UMC

PP-004 Lisanne Kok

Magnetic Resonance Neurography (MRN) in the abdomen: feasibility of imaging the celiac plexus with motion-compensated 3D SHINKEI

University Medical Center Utrecht, Utrecht, NL

Recently, the 3D-SHINKEI (3D nerve-SHeath signal increased with INKed rest-tissue RARE Imaging) sequence was introduced for peripheral MR neurography. This method uses an improved Motion Sensitized Driven Equilibrium (iMSDE) prepulse to suppress muscle and slow flow signal, for improved visualization of peripheral nerves. Applying this method in the abdomen would provide the potential to image the celiac plexus, which is involved in various pain mechanisms, e.g. due to pancreatic cancer and other upper gastrointestinal malignancies. In this work, we show the feasibility of MRN of the celiac plexus in volunteers by using cardiac and respiratory motion-compensated 3D SHINKEI.

PP-005 Carrie Wismans

Metabolic differences between asymptomatic C9orf72 carriers and non-carriers assessed by brain 7T MRSI

Department of Neurology, Brain Center Rudolf Magnus, University Medical Center Utrecht, Utrecht, NL

Amyotrophic lateral sclerosis (ALS) is an incurable and fatal neurodegenerative disease, which is caused by a C9orf72 repeat expansion in 9% of the cases. This mutation may cause changes of brain metabolism in patients but whether it affects brain metabolism in pre-symptomatic mutation carriers was not studied before. We used 7 Tesla magnetic resonance spectroscopic imaging (MRSI) to study brain metabolism in asymptomatic carriers of the C9orf72 repeat expansion and found lower concentrations of glutamate and N-acetylaspartate+N-acetylaspartylglutamate in the left putamen compared to non-carriers. This might indicate asymptomatic neuronal loss, a developmental defect or possibly a protective mechanism against ALS.

PP-006 Liesbeth Vanherp

Detection of in vivo biomarkers in fungal brain infection models with potential determination of cell viability

Biomedical MRI, KU Leuven, Leuven, Belgium

Animal models of cerebral infection by the pathogenic yeasts Cryptococcus neoformans and C. gattii were used to longitudinally assess disease progression by use of anatomical and diffusion-weighted MRI as well as MR spectroscopy. MR spectroscopy identified trehalose as an in vivo biomarker that can be used or quantification of the fungal load in living animals. These results have the potential to assist

Power Posters

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Paul de Heer
AMC Amsterdam

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Leiden UMC

in the differential and etiological diagnosis of brain lesions in patients, whereby MR spectroscopy is a safer, non-invasive and rapid method in comparison to traditional invasive diagnostic methods such as CSF sampling or biopsies.

PP-007 Oscar Van der Heide

In-vivo Validation of MR-STAT: Simultaneous Signal Localization and Quantifcation of Tissue Parameters on a 3T Clinical MR-System

Center for Image Sciences, UMC Utrecht, Utrecht, NL

MR-STAT is a framework for obtaining quantitative parameter maps from a single short scan. It is based on a time domain model. Large numerical inversion problems are solved to simultaneously localize signal and estimate tissue parameters. In this work we demonstrate the first experimental in-vivo results obtained with a clinical MR system.

PP-008 Lena Vaclavu

Associations between white matter lesions, age, and 4D flow MRI hemodynamics in 69 patients with Sickle Cell Disease

Department of Radiology, Academic Medical Center, Amsterdam, NL

Intracranial hemodynamics including wall shear stress (WSS) play a role in initiating vaso-occluion in Sickle Cell Disease (SCD). Additionally, 30% of patients have white matter lesions (WMLs), which may be related to ischemic damage due to vaso-occlusion. We investigated the relationships between impaired hemodynamics (velocity, WSS, flow, and lumen area) and WMLs. Our aim was to assess the age-related range of hemodynamic 4D-flow MRI parameters in SCD and to relate them to WMLs in SCD. Our results show that age is an important factor when comparing patients with controls on hemodynamics, and while WMLs coincide with low velocity and WSS in SCD, age is a significant factor precluding the direct establishment of a causal relationship between 4D-flow hemodynamics with WMLs.

Diffusion

Moderators of Oral Presentation Session

Ben Jeurissen
University of Antwerp

Anneriet Heemskerk
UMC Utrecht

O-001 Gaetan Duchene
Quantification of pore size distributions using double diffusion encoding: assessment of the feasibility on a clinical syste
Medical imaging dept., St-Luc University hospital, Universite Catholique de Louvain, Brussels, BE

O-002 Samuel St-Jean
Combined upsampling and denoising for diffusion MRI data
Image Sciences Institute, University Medical Center Utrecht, NL

O-003 Julie Hamaide
Correlation of striatal remodeling with changes in song performance: a longitudinal diffusion tensor imaging study of adult male zebra finches
Bio-Imaging Lab, University of Antwerp, Wilrijk, BE

O-004 Luuk Voskuilen
Crossing muscle fibres in the tongue resolved using constrained spherical deconvolution
Department of Head and Neck Oncology and Surgery, Netherlands Cancer Institute, Antoni van Leeuwenhoek Hospital, Amsterdam, NL;
Department of Radiology, Academic Medical Center, Amsterdam, NL;
Department of Oral and Maxillofacial Surgery, Academic Centre for Dentistry Amsterdam and Academic Medical Center, University of Amsterdam and VU University Amsterdam, Amsterdam, NL

Cancer

Moderators of Oral Presentation Session

Mangala Srinivas
Radboud UMC

Rob Tijssen
UMC Utrecht

O-005 Frits van Heijster
In vivo hyperpolarized [1-13C]pyruvate and [18F]-FDG PET/CT studies of prostate cancer metastasis xenografts in mice
Dept. Radiology and Nuclear Medicine, Radboud University Medical Center, Nijmegen, NL

O-006 Ellis Beld
Simultaneous MR imaging and control of an MR compatible afterloader: feasibility of real-time HDR brachytherapy source tracking
Department of Radiotherapy, UMC Utrecht, NL

O-007 Isabell Bones
4DMRI for RT planning; novel precise amplitude binning in the presence of irregular breathing
Radiotherapy department, Academic medical center, Amsterdam, NL;
Laboratory of Medical Physics/Faculty of Medical Engineering and Technomathematics, University of applied sciences Aachen, Germany

O-008 Hui Shan Chan
Eigentumors of dynamic contrast-enhanced MR images of the breast for prediction of treatment failure
Imaging Sciences Institute, UMC Utrecht, NL

Workshops

Some of our Sponsors as well as the NWO are offering informative workshops on various topics taking place during a short parallel session. The annual members meeting of our chapter to which all participants of the meeting are invited, will also be held at this time.

Bruker Sponsored Workshop *- South 1*

High resolution PET insert for high field preclinical MRI: comparison between single and three rings systems using 7T field strength

Based on the newly designed single ring PET insert using monolythic crystals, we extended the device to 3 rings providing an axial field of view of 14.4 cm. We hereby provide the comparison of the 2 systems in terms of sensitivity, resolution, and image quality. From our first evaluation, we concluded that sub-milimeter spatial resolution, combined with accurate photon DOI determination, make it possible to return high resolution reconstructed images. Several applications were already performed with the single ring PET insert to illustrate the benefit of combining simultaneously PET and MRI, using high field preclinical MRI system (Bruker Biospec, 7T).

Philips Sponsored Workshop *- North 2+3*

Philips MR Research Tools

The workshop gives an overview of available MR research tools that Philips offers to its users like: PPE, RECON2.0 and PRIDE2.0.

Scannexus Sponsored Workshop *- South 4*

How to make complicated seem easy: 9.4 T MRI for the non-expert user

Cutting edge MRI equipment, such as the Maastricht 9.4 T system, can be extremely complex to operate. Additional transmit channels, extra safety checks, and other differences to clinical MRI systems create workflows that can be daunting to the non-expert user. In order to increase the accessibility of the 9.4 T to the general research community, a combination of automation and reorganization has been used to greatly simplify these procedures. We will describe how we have been able to do this, with examples of the high quality images that result.

Technology Foundation NWO *- South 2+3*

How to get money?

Writing a grant application is a difficult task. In this workshop we will explain what to expect in an application procedure, especially the NWO Veni-round. What are the important parts of your proposal, how does a committee member or reviewer look at your application and what are do's and don'ts?

ISMRM Benelux Board *- North 4*

Annual Members Meeting

In parallel to the sponsored workshops, the board of the ISMRM Benelux will host the annual members meeting of the ISMRM Benelux Chapter. During this year's meeting we will again discuss the current status of the Chapter. The meeting is open to everyone and especially to those willing to participate in future activities of the chapter! More specifically, the agenda points comprise an evaluation of the present and previous annual meeting, a financial report and a discussion on future activities. You are welcome to present your own ideas to bring our chapter into fruition.

Neuro

Moderators of Oral Presentation Session

Benedicte Descamps
Ghent University

Elisabeth Jonkers
Univesity of Antwerp

O-009 Jurgen Peerlings
Comparing the spatial integrity of 7T and 3T MR images for image-guided radiotherapy in neuro-oncology
Department of Radiation Oncology (MAASTRO), GROW - School for Oncology and Developmental Biology, Maastricht University Medical Center+, Maastricht, NL
Department of Radiology and nuclear medicine, Maastricht University Medical Center+, Maastricht, NL

O-010 Michael Belloy
Dynamic resting state fMRI in mice: detection of Quasi-Periodic Patterns
Bio-Imaging Lab / Department of Biomedical Sciences, University of Antwerp, Antwerp, BE

O-011 Luc van Vucht
Quantitative MRI of extraocular muscles in the clinical evaluation of systemic diseases
Department of Ophthalmology, Leiden University Medical Center, Leiden, NL
Department of Radiology, C.J. Gorter Center for High-field MRI, Leiden University Medical Center, Leiden, NL

O-012 Jasmien Orije
In vivo Diffusion tensor imaging to unravel the contribution of thyroid hormones in seasonal neuroplasticity in European Starlings (Sturnus vulgaris)
Bio-Imaging Lab / Department of Biomedical Sciences, University of Antwerp, Antwerp, BE

O-013 Ayodeji Adams
Measurements of cardiac related pulsatile volumetric strain in grey and white matter brain tissue with high resolution DENSE at 7T
Department of Radiology, University Medical Center Utrecht, Utrecht, NL

O-014 Marjolein Verly
Aberrant intrinsic functional connectivity of the language network in rolandic epilepsy
Department of Neurosciences, KU Leuven, Leuven, BE

O-015 Michelle Solleveld
The acute pharmacological MRI response to a citalopram challenge is modulated by earlier selective serotonin reuptake inhibitor exposure in an age dependent manner
Department of Radiology, Academic Medical Center Amsterdam, Amsterdam, NL
Swammerdam Institute for Lifesciences/Center for Neurosciences, University of Amsterdam, Amsterdam, NL

MR Methods

Moderators of Oral Presentation Session

Nico van den Berg
UMC Utrecht

Bram Coolen
AMC Amsterdam

O-016 Robin Navest
3D motion quantification based on the temporal evolution of the noise covariance matrix of a receive array
Department of Radiotherapy, Center for Image Sciences, University Medical Center Utrecht, Utrecht, NL

O-017 Alexandra Cristobal-Huerta
Accelerated 3D GRASE for T2 and PD Weighted High Resolution Images
Department of Radiology and Nuclear Medicine, Erasmus MC, Rotterdam, NL

O-018 Sander Brinkhof
Correlation of 7T gagCEST MRI with Electromechanical and Biochemical Properties of Femoral Articular Cartilage
Department of Radiology, University Medical Center Utrecht, Utrecht, NL

O-019 Maddy Daemen
Interleaved 31P-MR spectroscopy and cine 1H-MR imaging of the human heart at 3 Tesla
Department of Radiology, Academic Medical Center, Amsterdam, NL
Biomedical NMR, Department of Biomedical Engineering, Eindhoven University of Technology, Eindhoven, NL

O-020 Stefano Mandija
Investigating the relation between electrical conduction and tissue composition with proton and sodium MRI
Center for Image Sciences, University Medical Center Utrecht, Utrecht, NL

O-021 Francisco J. Fritz
kT-STEAM: kT-points 3D STEAM at 9.4T for high resolution whole brain T1 and T2 weighted MRI ex vivo
Cognitive Neuroscience Department, Maastricht University, Maastricht, NL

O-022 Bart Steensma
DREAM-based B1-shimming for cardiac imaging at 7T
Imaging Division, University Medical Center Utrecht, Utrecht, NL

Spectroscopy

Moderators of Oral Presentation Session

Lucas Lindeboom
Maastricht University

Firat Kara
University of Antwerp

O-023 Yvonne Bruls

The increase in skeletal muscle acetylcarnitine concentrations is more pronounced after exercise compared to a high-energy meal

Departments of Radiology, NUTRIM School for Nutrition and Translational Research in Metabolism, Maastricht University Medical Center, Maastricht, NL

O-024 Sourav Bhaduri

Reduction of Acquisition time by Partition of the sIgnal Decay in Spectroscopic Imaging (RAPID-SI) technique: Simulation results on a 2D application

Department of Radiology, University of Ghent, Gent, BE

O-025 Nienke Sijtsema

4-Dimensional spin echo for prostate 1H MRSI at 7T using a multi-transmit system

Imaging Division, University Medical Center, Utrecht, NL

Perfusion

Moderators of Oral Presentation Session

Dimo Ivanov
Maastricht University

Sophie Schmid
Leiden UMC

O-026 Lennart Geurts
Small vessel specific cerebrovascular reactivity with 7 tesla 2D Qflow MRI
Department of Radiology, University Medical Center Utrecht, Utrecht, NL

O-027 Kritstof Govaerts
The effects of a Western-type diet on the cerebrovascular response to hypercapnia in a double transgenic mouse model for Alzheimer's Disease
Imaging & Pathology, KU Leuven, Leuven, BE

O-028 Piet Bladt
Optimal Sampling Strategy for Pseudo-Continuous Arterial Spin Labeling MRI
Vision Lab, Department of Physics, University of Antwerp, Antwerp, BE

Clinical Studies

Moderators of Oral Presentation Session

Pim van Ooij
AMC Amsterdam

Jacobus Jansen
Maastricht UMC

O-029 Judith Olde heuvel
Evaluation of the Pelvic Organ Prolapse using an Upright MRI-Scan
Faculty of Science and Technology, University of Twente, Enschede, NL; Gynaecology department, University Medical Center, Utrecht, NL

O-030 Charlotte Sleurs
Measuring white matter structure in solid tumor survivors: a fixel-based versus voxel-based approach
Department of Pediatric Hematology and Oncology, University Hospitals Leuven, KU Leuven, BE

O-031 Robert Holtackers
Dark-Blood Late Gadolinium Enhanced MRI: A Novel Method without Additional Magnetization Preparation for Improved Myocardial Scar Detection
Division of Imaging Sciences and Biomedical Engineering, King's College London, London, UK

RF Engineering

Moderators of Oral Presentation Session

Ingmar Voogt
UMC Utrecht

Wyger Brink
Leiden UMC

O-032 Cezar Alborahal

The potential of a 256-Channel receive-only array for accelerated Cardiac Imaging at 3T

MR Coils B.V., Zaltbommel, NL

O-033 Jeroen van Gemert

Fast 3D Design of High-Permittivity Pads for Dielectric Shimming using Model Order Reduction and Nonlinear Optimization

Circuits and Systems, Delft University of Technology, Delft, NL

O-034 Thomas Ruytenberg

Dielectric resonator antenna receive array at 7 Tesla using detunable ceramic resonators

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

Poster Index

Poster	First author	Title
Body		
p001	van Baalen	Kidney tumor characterization with diffusion-MRI: diffusion-tensor and tri-exponential modeling
p002	Franklin	Quantitative comparison of time-SLIP and Triple Inversion Recovery (TIR) non-contrast enhanced MRI for renal angiography
p003	de Jonge	Dynamic MRI For Bowel Motility Imaging â€“ How Fast And How Long?
p004	de Heer	Free breathing T2* mapping of the Liver using a compressed sensing reconstruction
p005	Damen	Quantitative T1 and T2 measurements of pancreas at 7 Tesla using a multi-transmit system
p006	de Boer	Automated renal motion correction using fat-images derived from Dixon reconstruction of DCE MRI
Cancer		
p007	Zhou	Monoexponential and IVIM model of diffusion weighted imaging in solitary pulmonary nodules- a preliminary study
p008	Maspero	Clinical evaluation of automatic localization of prostate gold Fiducial Markers for MR-only Radiotherapy
p009	Klawer	Robust arterial input functions by fitting the complex DCE-MRI signal: a test-retest study in prostate cancer
p010	Acciardo	Imaging markers of response to combined BRAF - MEK inhibition in melanoma
p011	van Houdt	Reliable T2 mapping of prostate with high spatial resolution within five minutes
p012	van Pelt	Development of an MRI-protocol for radiotherapy treatment guidance in gastric cancer
p013	Swider	Rational design of PLGA-perfluorocarbon nanoparticles for biomedical applications
Data processing		
p014	van Rijssel	Susceptibility-induced local Î"B0 variations are essential for predicting EPI distortions in the breast
p015	van Ormondt	Simultaneous processing of two-dimensional hyperpolarised 13C-MRS data directly in the time-domain.
p016	Klooster	Accelerated intermittent theta burst stimulation, applied to the left DLPFC, influences dynamics in depression related networks
p017	Fuchs	A first order Induced Current Density Imaging and Electrical Properties Tomography Method in MRI
p018	Bruijnen	The efficacy of existing k-space correction methods for 2D golden angle radial sampling on clinical 1.5T and 3T systems
p019	Peper	Compressed Sensing accelerated 4D flow MRI using a pseudo spiral Cartesian sampling technique with random undersampling in time
p020	Silva	Reduction of Lipid Artifacts in Brain 1H MRSI using Point Spread Function Prior Knowledge
Diffusion		
p021	Vroling	Origin of diffusion anisotropy in human kidney: a combined DTI and IVIM study
p022	Liebrand	Which white matter bundles are associated with treatment efficacy in deep brain stimulation of the ventral internal capsule for OCD and MDD?

13:00 - 13:30 presenters of odd numbered posters must be present a
13:40 – 14:10 presenters of even numbered posters must be available

Poster Index

Poster	First author	Title
p023	Baron	Accuracy of ADC measurements with an Ultrashort Echo Time Diffusion Weighted stimulated echo 3D Cones sequence (DW-STEAM 3D Cones UTE)
p024	Haakma	MR imaging of the cervical spinal cord in patients with spinal muscular atrophy and healthy controls
p025	Mesri	Investigating the effect of ignoring gradient nonuniformities on DTI measures
High Field		
p026	Grech Fonk	High resolution imaging of the optic chiasm at 7T MRI improves lesion detection and tumour delineation compared to 3T
p027	Himmelreich	High resolution PET insert for high field preclinical MRI: evaluation of single ring system using 7T field strength
p028	Krikken	Monitoring neoadjuvant chemotherapy in breast cancer patients using CEST and 31P-MRS at 7 tesla
p029	van der Velden	Concurrent use of 4 gradient axis enables eddy current compensation of an unshielded gradient insert coil
p030	Wezel	Effect of head motion on B0 shimming based on magnetic field probes
MR Methods		
p031	Stemkens	Real-time prospective bulk motion exclusion for robust 3D free-breathing abdominal imaging
p032	Shcherbakova	SNR analysis and sequence parameter optimization for T1 and T2 mapping using an ellipse fitting approach of phase cycled bSSFP data
p033	Dou	Longitudinal in vivo 19F MR imaging by ZTE of 19F labeled calcium phosphate cement implanted in bone defects in the rat
p034	Kruseman	Kalman-Filter reconstruction for highly corrupted MR fingerprinting data
p035	Wolf	Detection of Changes in the Creatine Kinase Cycle Rate in the Human Visual Cortex During Visual Stimulation with Filter Exchange 1H MR Spectroscopy (FEXSY) at 7T
p036	Ferrer	Field drift-correction of PRFS temperature mapping using fast interleaved non selective free induction decay (FID) readouts
p037	Coolen	The sparse signal in the noise: variable averaging and CS
p038	Schoormans	3D black-blood DCE-MRI using radial stack-of-stars acquisition and CS reconstruction: application in carotid and femoral arteries
Muskuloskeletal		
p039	Mazzoli	Dynamic knee imaging using 4D self-gated MRI with compressed sensing reconstruction
p040	Schröder	A novel approach to measure tibial component migration by low field markerless magnetic resonance imaging
p041	Heskamp	Disease progression in skeletal muscles of Myotonic Dystrophy Type 1 evaluated using quantitative MRI
p042	Hooijens	Phosphodiester-levels in muscle assessed using 31P MRS are an early marker for disease activity in DMD
p043	Tsui	The magic angle effect can (partially) explain load-induced increases in meniscal T2 and T1
p044	Nelissen	Longitudinal characterization of deformation-induced skeletal muscle damage by T2-mapping, DWI and MRE
p045	Monte	Assessing muscle injuries with Diffusion Tensor Imaging (DTI) and IVIM modeling
p046	Baligand	Stimulated Echo DTI in skeletal muscle of patients with Becker Muscular Dystrophy

13:00 - 13:30 presenters of odd numbered posters must be available
13:40 – 14:10 presenters of even numbered posters must be available

Poster Index

Poster	First author	Title
p047	van Asten	Evaluating T2 relaxation times in muscles of muscular dystrophy patients; which fitting model to choose?
p048	Burakiewcz	Multiparametric imaging with STEAM-DTI of calf muscles in a patient with a leg cast: a longitudinal case study
p049	Kogelman	Potential of Stimulated Echo Diffusion-weighted Imaging as Disease Marker in Duchenne Muscular Dystrophy
p050	Hemke	Feasibility of GRASP DCE-MRI in children with Juvenile Idiopathic Arthritis (JIA)
Neuro		
p051	Lindenholz	High-resolution MR vessel wall imaging after intra-arterial treatment for acute ischemic stroke
p052	Jonckers	Cocaine applied in a "binge paradigm" induces a region-specific and persistent brain circuitry modulation.
p053	Dieleman	Intracranial vessel wall imaging in suspected cerebral vasculitis: evaluation of diagnostic value and treatment effects using 3T and 7T MRI.
p054	Gsell	Use of Pharmacological MRI (phMRI) to understand the mechanisms leading to convergent procognitive effects of 5-HT6 serotonergic receptors agonist (EMD-386088) and antagonist (SB-271046).
p055	Drenthen	Myelin Water Fraction estimation using a two-step exponential model
p056	Wong	Spectral Diffusion IVIM Analysis of Enlarged Perivascular Spaces in Cerebral Small Vessel Disease
p057	Arts	Investigating potential pulsatility effects in the cerebral microcirculation using multi-echo BOLD fMRI at 7T
p058	van Duin	Reward Learning and dopamine release in adults with 22q11DS: a study using MRI and [18F]fallypride positron emission tomography.
p059	Markuerkiaga	An in vivo study of BOLD laminar responses as a function of echo time and magnetic field
p060	van der Kleij	Decreased borderzone perfusion is related to brain parenchymal volume loss after subarachnoid hemorrhage
p061	van der Plas	More and faster: multi-timepoint ASL at 150ms time-resolution with whole brain coverage by combining time-encoding, Look-Locker, Multi-Band and flip-angle sweep
p062	Harnandez-Tamames	Partial Volume Correction and Transit Time correction effect in absolute perfusion quantification with 3D Pseudo-Continuous Arterial Spin Labelling
Preclinical		
p063	Kara	Hypothalamic pituitary gonadal axis deregulation alters resting state functional connectivity in a mouse model of Alzheimer's disease
p064	Klaassen	Multi-agent dynamic contrast enhanced MRI to assess vascular changes induced by prolonged VEGFR2 inhibition in oesophageal cancer
p065	Peeters	Dynamic Nuclear Polarization across the barrier: a Focused Ultrasound approach
p066	Braeckman	Characterizing microstructural alterations in a rat model of mild traumatic brain injury: a multishell diffusion MRI analysis
p067	Munting	Using time-encoded pCASL to study vascular function in a mouse model of Alzheimers disease
p068	van Zandwijk	Feasibility study for implementing low-field MRI with SPIO nanoparticles for endovascular interventions: An alternative to X-ray guided techniques
RF Engineering		
p069	Tokaya	MRI based RF safety characterization of implants using the implant response matrix: a simulation study.

13:00 - 13:30 presenters of odd numbered posters must be available
13:40 – 14:10 presenters of even numbered posters must be available

Poster Index

Poster	First author	Title
p070	Meliadò	Fast method to get an upper bound of the maximum SAR10g for body coil arrays
p071	Brink	Efficient Analysis of Dielectric Materials in Coupled RF Coil Configurations
p072	Hayawi	Bilateral breast coil with fractionated dipole antennas for homogeneous bilateral breast imaging at 7T
p073	van Leeuwen	A lightweight gradient insert coil for high resolution brain imaging
p074	Koolstra	Improved Image Quality and Decreased Power Deposition in the Spine at 3T using Extremely High Permittivity Materials
p075	Batzakis	Initial experiences with a whole-body birdcage transmit coil and 16-element receive array for cardiac 31P-MRS at 7T
p076	Versteeg	Integrating PET detectors in a wide bore 1.5 T MR system: a simulation study
Spectroscopy		
p077	Lindeboom	Homonuclear spectral editing to measure ectopic lipid composition in vivo with 1H-MRS
p078	van Veenendaal	Glutamate quantification by PRESS or MEGA-PRESS: accuracy, repeatability, and concordance
p079	van Uden	31P spectroscopic imaging of the human brain at 3T: effect of NOE and 1H-decoupling
p080	Philips	Initial results of combined 1H and 31P spectroscopic imaging of the prostate at 7 Tesla
p081	Doorenweerd	Proton magnetic resonance spectroscopy indicates preserved cerebral biochemical composition in Duchenne muscular dystrophy males
p082	van Kalleveen	31P MRS in a liver metastasis patient using a surface coil at 7T
p083	Milde	Profiling of lipid composition in the human liver with 1H MRS at 7T
p084	Manders	High-fat diet feeding in mice may partially protect the heart from pressure overload induced heart failure - a longitudinal study of cardiac metabolism and function

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