

ESMRMB 2019
October 3-5, 2019

Thursday, October 3, 2019

08:00-09:00 Room 1 - Willem Burger Zaal	I01	ASL as an Alternative to Gadolinium
	Moderation:	Sokolska, M., United Kingdom Steketee, R., Rotterdam, Netherlands
08:00-08:30	I01.01	Perfusion Boscolo Galazzo, I. <i>University of Verona, Department of Computer Science, Verona, Italy</i>
08:30-09:00	I01.02	Angiography Suzuki, Y. <i>University of Oxford, Oxford, United Kingdom</i>
08:00-09:00 Room 2 - Van Weelde Zaal	I02	Introduction to Machine Learning
	Moderation:	Rockall, A., London, United Kingdom Yousefi, S., Leiden, Netherlands
08:00-08:30	I02.01	Roadmap: From Clinical Need to Translatable Tool Booth, T. ^{1,2} <i>¹King's College London, School of Biomedical Engineering and Imaging Sciences, London, United Kingdom, ²King's College Hospital, Neuroradiology, London, United Kingdom</i>
08:30-09:00	I02.02	Concepts and Lexicon of Machine Learning in Medical Imaging Langs, G. <i>Medical University of Vienna, Computational Imaging Research Lab, Vienna, Austria</i>
08:00-09:00 Room 3 - Ruys & van Rijckevorsel Zaal	I03	Practical Approaches to Efficient MRI
	Moderation:	Syrgiamiotis, V., Greece Kappert, P., Netherlands
08:00-08:30	I03.01	Optimising Patient Management Castillo, J. ^{1,2} <i>¹Mater Dei Hospital, San Gwann, Malta, ²Mater Dei Hospital, Medical Imaging, San Gwann, Malta</i>
08:30-09:00	I03.02	Image Quality Versus Scan Time at 3T: Getting the Balance Right Hayes, M. <i>Sports Surgery Clinic, Diagnostic Imaging, Dublin, Ireland</i>
09:15-09:30 Room 1 - Willem Burger Zaal	I04	Opening Ceremony
09:30-10:15 Room 1 - Willem Burger Zaal	I04.01	Flow, Diffusion and Perfusion MRI: An Evolution Over 30 Years Flow, Diffusion and Perfusion MRI: An Evolution over 30 Years Ståhlberg, F. <i>Lund University, Lund, Sweden</i>

10:30-11:30 Room 1 - Willem Burger Zaal	I05	Gadolinium-free Imaging
	Moderation:	Quattrocchi, C. C. , Italy Nederveen, A., Netherlands
10:30-11:00	I05.01	The Good, the Bad and the Ugly of Gadolinium Radbruch, A. <i>University of Essen, Radiology, Essen, Germany</i>
11:00-11:30	I05.02	Technical Solutions of Gadolinium-Free MRI and their Application Gowland, P. <i>Nottingham, United Kingdom</i>
11:45-12:45 Room 2 - Van Weelde Zaal		Industry Lunch Symposium
13:00-14:30 Room 1 - Willem Burger Zaal	I06	Gadolinium-free Cardiac Imaging
	Moderation:	Coolen, B., Netherlands Dekkers, I., Leiden, Netherlands
13:00-13:30	I06.01	T1-rho as an Alternative to Late Gadolinium Enhancement Froeling, M. <i>University Medical Center Utrecht, Department of Radiology, Utrecht, Netherlands</i>
13:30-14:00	I06.02	T1 Mapping in Rest and Under Stress Ferreira, V. <i>University of Oxford, Division of Cardiovascular Medicine, Radcliffe Department of Medicine, Oxford, United Kingdom</i>
14:00-14:30	I06.03	Cardiac Arterial Spin Labeling Kober, F. <i>Aix-Marseille Univ, CNRS, CRMBM, Marseille, France</i>
13:00-14:30 Room 2 - Van Weelde Zaal	S01	Diffusion Imaging
	Moderation:	Hoinkiss, D. C., Bremen, Germany Jansen, J., Netherlands
13:00-13:10	S01.01	Asymptotic behavior of the Direction-Averaged Diffusion Signal using Planar Tensor Encoding Afzali, M.¹, Aja-Fernandez, S.², Jones, D. K.¹ <i>¹Cardiff University Brain Research Imaging Centre (CUBRIC), School of Psychology, Cardiff University, Cardiff, United Kingdom, ²Laboratorio de Procesado de Imagen (LPI), Universidad de Valladolid, Valladolid, Spain</i>
13:10-13:20	S01.02	Separating intra- and extra-axonal susceptibility effects using a Diffusion-Filtered Asymmetric Spin Echo (D-FASE) sequence Kleban, E.¹, Tax, C. M. W.¹, Rudrapatna, U. S.¹, Jones, D. K.¹, Bowtell, R.² <i>¹Cardiff University, Cardiff University Brain Research Imaging Centre (CUBRIC), School of Psychology, Cardiff, United Kingdom, ²University of Nottingham, Sir Peter Mansfield Imaging Centre (SPMIC), School of Physics & Astronomy, Nottingham, United Kingdom</i>
13:20-13:30	S01.03	On fiber orientation distribution peak selection for diffusion MRI fiber tractography Zhylyka, A.¹, Leemans, A.², Pluim, J.¹, De Luca, A.² <i>¹Eindhoven University of Technology, Biomedical Engineering, Eindhoven, Netherlands, ²University Medical Center Utrecht, Image Sciences Institute, Utrecht, Netherlands</i>
13:30-13:40	S01.04	Influence of diffusion pipeline on data analysis: UK Biobank example for

		age-diffusion dependences Maximov, I. I., Alnaes, D., Westlye, L. T. <i>University of Oslo, Oslo, Norway</i>
13:40-13:50	S01.05	Generalized Stejskal-Tanner Equation. Practical meaning for MRI Krzyżak, A. ¹ , Obuchowicz, R. ² ¹ AGH University of Science and Technology, Kraków, Poland, ² Collegium Medicum of Jagiellonian University, Kraków, Poland
13:50-14:00	S01.06	Microscopic Diffusion Anisotropy Imaging As Potential Biomarker For The Pathogenesis Of Multiple Sclerosis Lesions Martinez-Heras, E. ¹ , Andorrà, M. ¹ , Solana, E. ¹ , Radua, J. ² , López-Soley, E. ¹ , Montejo, C. ¹ , Pulido-Valdeolivas, I. ¹ , Saiz, A. ¹ , Llufrí, S. ¹ ¹ Hospital Clinic Barcelona, IDIBAPS and Universitat de Barcelona, Center of Neuroimmunology, Laboratory of Advanced Imaging in Neuroimmunological Diseases, Barcelona, Spain, ² IDIBAPS and CIBERSAM, Department of Clinical Neuroscience, Karolinska Institutet, Stockholm, Sweden; Department of Psychosis Studies, Institute of Psychiatry, Psychology and Neuroscience, King's College London, London, UK, Barcelona, Spain
14:00-14:10	S01.07	Watson vs. Bingham Distributions in NODDI Measures for 22q11.2 Copy Number Variants (CNVs) causing brain alterations Villalon-Reina, J. ¹ , Nir, T. ¹ , Jahanshad, N. ¹ , Kushan, L. ² , Bearden, C. E. ² , Thompson, P. M. ¹ ¹ University of Southern California, Imaging Genetics Center, Los Angeles, United States, ² University of California Los Angeles, Semel Institute for Neuroscience and Human Behavior, Los Angeles, United States
14:10-14:20	S01.08	COMPARISON OF CLINICALLY FEASIBLE DWI TECHNIQUES FOR THE MICROSTRUCTURAL CHARACTERIZATION OF NEURODEGENERATIVE AND DEMYELINATING DISEASES. A SIMULATION STUDY Oliviero, S. ¹ , Del Gratta, C. ² ¹ Università degli Studi di Chieti Pescara G. D'Annunzio, Neuroscience, Imaging, and Clinical Sciences; ITAB, Chieti, Italy, ² Università degli Studi di Chieti Pescara G. D'Annunzio, Neuroscience, Imaging, and Clinical Sciences; ITAB, Chieti, Italy
14:20-14:30	S01.09	Optimized b-value distributions for triexponential liver IVIM Riexinger, A., Laun, F. <i>University Hospital Erlangen, Friedrich-Alexander-University (FAU), Radiology, Erlangen, Germany</i>
13:00-14:30 Room 3 - Ruys & van Rijkevorsel Zaal	S02	MR Signals & Artefacts
	Moderation:	Marques, J., Netherlands de Bruin, P., Netherlands
13:00-13:10		Introduction Marques, J. <i>Radboud University, Nijmegen, Netherlands</i>
13:10-13:20	S02.02	Simulation frame work for predicting flip angles in echo-train sequences Blaimer, M. ¹ , Breuer, F. ¹ , Weber, D. ¹ , Malik, S. ² , Herold, V. ³ ¹ Fraunhofer Institute for Integrated Circuits (IIS), Magnetic Resonance and X-Ray Imaging, Würzburg, Germany, ² King's College, Biomedical Engineering Department, London, United Kingdom, ³ University of Würzburg, Experimental Physics 5, Würzburg, Germany
13:20-13:30	S02.03	In-vitro validation of clinically relevant PC MRI methods using the SYNC SPI method as a gold standard Bruschewski, M., John, K., Grundmann, S. <i>University of Rostock, Institute of Fluid Mechanics, Rostock, Germany</i>
13:30-13:40	S02.04	Myelin water imaging using the transient phase of an inversion-recovery balanced steady-state-free-precession (IR-bSSFP) measurement Blaimer, M. ¹ , Zehe, D. ² , Pfister, J. ¹ , Bartsch, A. ³ , Breuer, F. ¹ , Jakob, P. ² ¹ Fraunhofer Institute for Integrated Circuits (IIS), Magnetic Resonance and X-

		<i>Ray Imaging, Würzburg, Germany, ²University of Würzburg, Experimental Physics 5, Würzburg, Germany, ³Heidelberg University Hospital, Department of Neuroradiology, Heidelberg, Germany</i>
13:40-13:50	S02.05	Fat deblurring in golden angle radial stack-of-stars water-fat imaging for navigator-gated abdominal fat quantification Zöllner, C. ¹ , Kronthaler, S. ¹ , Böhm, C. ¹ , Ruschke, S. ¹ , Diefenbach, M. ¹ , Franz, D. ¹ , Beck, G. M. ² , Peeters, J. M. ² , Karampinos, D. C. ³ <i>¹Technical University of Munich, Department of Diagnostic and Interventional Radiology, School of Medicine, München, Germany, ²Philips Healthcare, Best, Netherlands, ³Technical University of Munich, Department of Diagnostic and Interventional Radiology, School of Medicine, Munich, Germany</i>
13:50-14:00	S02.06	Pre-emphasis of Twisting Radial Lines (TWIRL) using the Gradient System Transfer Function (GSTF) at 7T Eirich, P. ¹ , Wech, T. ¹ , Stich, M. ¹ , Reiter, T. ² , Schreiber, L. M. ³ , Köstler, H. ¹ <i>¹University Hospital Würzburg, Department of Diagnostic and Interventional Radiology, Würzburg, Germany, ²University Hospital Würzburg, Department of Internal Medicine I, Würzburg, Germany, ³University Hospital Würzburg, Chair of Cellular and Molecular Imaging, Würzburg, Germany</i>
14:00-14:10	S02.07	Impact of head motion on SMS-accelerated fMRI: GRAPPA versus no GRAPPA Fouto, A. ¹ , Nunes, R. G. ¹ , Silva, N. A. ² , Ruiz-Tagle, A. ³ , Figueiredo, P. ¹ <i>¹ISR-Lisboa/LARSyS and Department of Bioengineering, Instituto Superior Técnico, Universidade de Lisboa, Lisbon, Portugal, ²Hospital da Luz Learning Health, Lisbon, Portugal, ³ISR-Lisboa/LARSyS and Department of Bioengineering, Instituto Superior Técnico, Universidade de Lisboa, Lisbon, Portugal</i>
14:10-14:20	S02.08	MOCO-MAP using a TWIRL trajectory Portmann, J. , Wech, T., Eirich, P., Köstler, H. <i>University Hospital of Würzburg, Department of Diagnostic and Interventional Radiology, Würzburg, Germany</i>
14:20-14:30	S02.09	Strategies for gradient duty cycle reduction in high resolution gradient echo imaging Leupold, J. ¹ , Hesse, L. ² , Weigel, M. ³ , Wapler, M. ⁴ , Bär, S. ¹ <i>¹University Medical Center Freiburg, Radiology - Medical Physics, Freiburg, Germany, ²Botanischer Garten der Universität Freiburg, Plant Biomechanics Group, Freiburg, Germany, ³University Hospital Basel, Department of Radiology, Division of Radiological Physics, Basel, Switzerland, ⁴University of Freiburg, Department for Microsystems Engineering, Freiburg, Germany</i>
13:00-14:32 Room 4 - Plate & Van der Vorm Zaal	S03	Cancer Imaging
	Moderation:	Knutsson, L., Sweden Niendorf, T., Germany
13:00-13:02	S03.00	Glioma MR Imaging 2.0: a new European Cooperation in Science & Technology (COST) Action Clement, P. ¹ , Hirschler, L. ² , Jančálek, R. ³ , Keil, V. ⁴ , Maumet, C. ⁵ , Petr, J. ⁶ , Smits, M. ⁷ , Zhao, M. ⁸ , Warnert, E. A. H. ⁷ <i>¹Ghent University, Ghent, Belgium, ²Leiden University Medical Center, Leiden, Netherlands, ³St Anne's University Hospital Brno, Neurosurgery, Brno, Czech Republic, ⁴University Hospital of Bonn, Radiology & Neuroradiology, Bonn, Germany, ⁵Univ Rennes, CNRS, Inserm, Inria, Rennes Cedex, France, ⁶Institute of Radiopharmaceutical Cancer Research, Helmholtz Zentrum Dresden Rossendorf, Dresden, Germany, ⁷Erasmus MC, Radiology & Nuclear Medicine, Rotterdam, Netherlands, ⁸University of Oxford, Institute of Biomedical Engineering, Oxford, United Kingdom</i>
13:02-13:12	S03.01	Cell labeling with Gd-based MRI agents using sonoporation Patrucco, D. , Tarso, G., Garello, F., Terreno, E. <i>University of Torino, Department of Molecular Biotechnology and Health Sciences, Torino, Italy</i>
13:12-13:22	S03.02	MR-based treatment planning for proton beam therapy of ocular tumors Beenakker, J.-W. ¹ , Fleury, E. ² , Hassan, M. ³ , Jaarsma-Coes, M. ¹ , Stoel, B. ³ ,

		Webb, A. ³ , Hoogeman, M. ² , Trnková, P. ² <i>¹Leiden University Medical Center, Departments of Radiology and Ophthalmology, Leiden, Netherlands, ²Erasmus Medical Center & Holland Proton Therapy Center, Radiation Oncology, Rotterdam, Netherlands, ³Leiden University Medical Center, Department of Radiology, Leiden, Netherlands</i>
13:22-13:32	S03.03	Early assessment of external beam radiotherapy response in an animal model of small-intestine neuroendocrine tumour (GOT1) using VERDICT modelling of diffusion MR data Lundholm, L., Montelius, M., Jalnefjord, O., Shubbar, E., Swanpalmer, J., Forssell-Aronsson, E., Ljungberg, M. <i>Institute of Clinical Sciences, Sahlgrenska Cancer Center at Sahlgrenska Academy, University of Gothenburg, Department of Radiation Physics, Gothenburg, Sweden</i>
13:32-13:42	S03.04	Cluster-based evaluation of T2* for early and longitudinal tumor radiotherapy response assessment in a small-intestine neuroendocrine tumor model Montelius, M. ¹ , Lundholm, L. ¹ , Jalnefjord, O. ² , Shubbar, E. ¹ , Swanpalmer, J. ¹ , Forssell-Aronsson, E. ¹ , Ljungberg, M. ¹ <i>¹University of Gothenburg, Institute of Clinical Sciences, Department of Radiation Physics, Gothenburg, Sweden, ²Sahlgrenska University Hospital, Medical Physics and Biomedical Engineering, Gothenburg, Sweden</i>
13:42-13:52	S03.05	Differentiation of Benign and Malignant Ovarian Tumors by Dynamic Contrast-enhanced Magnetic Resonance Imaging. Olimov, B. ¹ , Lapteva, M. ¹ , Beregov, M. ¹ , Kossov, F. ¹ , Panichenko, I. ² , Panov, V. ¹ , Tyurin, I. ¹ <i>¹Russia National Oncology Center, radiology, Moscow, Russian Federation, ²Russia National Oncology Center, Radiosurgery, Moscow, Russian Federation</i>
13:52-14:02	S03.06	Quantitative dynamic contrast enhancement in uveal melanoma Jaarsma-Coes, M. ¹ , van Houdt, P. ² , van der Heide, U. ² , Beenakker, J.-W. ¹ <i>¹Leiden University Medical Center, Radiology & Ophthalmology, Leiden, Netherlands, ²the Netherlands Cancer Institute, Department of Radiation Oncology, Amsterdam, Netherlands</i>
14:02-14:12	S03.07	Assessing histology structures by ex vivo MR microscopy texture analysis in peritoneal carcinomatosis implants Tardieu, M. ¹ , Khellaf, L. ² , Cardoso, M. ³ , Sgarbura, O. ² , Colombo, P.-E. ² , Goze-Bac, C. ³ , Nougaret, S. ¹ <i>¹Montpellier Cancer Research institute (IRCM), INSERM U1194, University of Montpellier, Montpellier, France, ²Montpellier Cancer Institute (ICM), Montpellier, France, ³L2C, UMR 5221, BioNanoNMRI group, CNRS, University of Montpellier, Montpellier, France</i>
14:12-14:22	S03.08	Daily IVIM and weekly DCE time trends in prostate cancer patients during radiation treatment Kooreman, E. ¹ , van Houdt, P. ¹ , Nowee, M. ¹ , van Pelt, V. ¹ , Tree, A. ² , Hall, W. ³ , van der Heide, U. ¹ <i>¹The Netherlands Cancer Institute, Department of Radiation Oncology, Amsterdam, Netherlands, ²The Institute of Cancer Research and the Royal Marsden NHS Foundation Trust, Joint Department of Physics, London, United Kingdom, ³Medical College of Wisconsin, Department of Radiation Oncology, Milwaukee, United States</i>
14:22-14:32	S03.09	Direct comparison of different methods proposed for enhanced conspicuity and discriminability of prostate cancer on diffusion-weighted imaging (DWI) Sprinkart, A. M., Marx, C., Block, W., Thomas, D., Kukuk, G., Mürtz, P. <i>University of Bonn, Dept. of Radiology, Bonn, Germany</i>
13:00-14:00 The Stage	L01	Molecular Imaging, Spectroscopy & Animal Models
	Moderation:	Sappey-Marinier, D., France López-Larrubia, P., Madrid, Spain
13:00-13:02	L01.01	Non-invasive imaging of vascular inflammation during the onset and progression of angiotensin-II induced formation of abdominal aortic aneurysm in apoE deficient mice by ¹H/¹⁹F MRI Temme, S. ¹ , Yakoub, M. ² , Bouvain, P. ¹ , Jacoby, C. ¹ , Schrader, J. ³ , Stegbauer,

		J. ² , Flögel, U. ¹ <i>¹University of Düsseldorf, Molecular Cardiology / Experimental Cardiovascular Imaging, Düsseldorf, Germany, ²University of Düsseldorf, Experimental Nephrology, Düsseldorf, Germany, ³University of Düsseldorf, Molecular Cardiology, Düsseldorf, Germany</i>
13:02-13:04	L01.02	Addressing long-term fate of iron oxide nanoparticles(ION) and specific MRI cell tracking by combining MRI and mass spectrometry with ⁵⁷Fe-ION Masthoff, M. ¹ , Beuker, A. ¹ , Buchholz, R. ² , Karst, U. ² , Heindel, W. ¹ , Wildgruber, M. ¹ , Faber, C. ¹ <i>¹University Hospital Muenster, Institute of Clinical Radiology, Muenster, Germany, ²University of Muenster, Institute for Inorganic and Analytical Chemistry, Muenster, Germany</i>
13:04-13:06	L01.03	Strategies to avoid isoflurane chemical shift artefacts in high sensitivity <i>in vivo</i>¹⁹F MRI Staal, X. ¹ , Veltien, A. ² , van Riessen, N. K. ¹ , Heerschap, A. ¹ , Srinivas, M. ¹ <i>¹Radboudumc, Tumor Immunology Lab, Nijmegen, Netherlands, ²Radboudumc, Department of Radiology, Nijmegen, Netherlands</i>
13:06-13:08	L01.04	¹⁹F-MR probe with tunable biodegradability Jirak, D. ¹ , Ziolkowska, N. ¹ , Galisova, A. ¹ , Kolouchova, K. ² , Sedlacek, O. ² , Hruby, M. ² , Hajek, M. ¹ <i>¹Institute for Clinical and Experimental Medicine, Prague, Czech Republic, ²Institute of Macromolecular Chemistry, Prague, Czech Republic</i>
13:08-13:10	L01.05	New class of biodegradable responsive phosphorus-containing contrast agent for ¹H/³¹P MR Ziółkowska, N. ^{1,2} , Jiráková, D. ² , Hrubý, M. ³ , Vít, M. ² , Pechrová, Z. ³ <i>¹Charles University, First Faculty of Medicine, Institute of Biophysics and Informatics, Prague, Czech Republic, ²Institute for Clinical and Experimental Medicine, Department of Computed Tomography, Magnetic Resonance and Clinical Experimental Spectroscopy, Prague, Czech Republic, ³Institute of Macromolecular Chemistry, Czech Academy of Sciences, Supramolecular polymer systems department, Prague, Czech Republic</i>
13:10-13:12	L01.06	Free radical mapping in the lung by OMRI using an accelerated 3D FSE sequence Rivot, A., Massot, P., Pham, T. T. V., Mellet, P., Parzy, E., Thiaudière, E. <i>Magnetic Resonance Center, UMR5536, CNRS, University of Bordeaux, Bordeaux, France</i>
13:12-13:14	L01.07	Reliability and reproducibility of ¹H-MR Spectroscopy for measurement of cerebral glutathione Anton, A. ¹ , Edden, R. A. ² , Wilkinson, I. D. ¹ <i>¹University of Sheffield, Academic Radiology, Sheffield, United Kingdom, ²The Johns Hopkins University School of Medicine, Baltimore, MD, United States</i>
13:14-13:16	L01.08	Estimation of T₂ Relaxation Times and Absolute Quantification of Metabolites in the Human Brain at 9.4 T Murali-Manohar, S. ¹ , Borbath, T. ¹ , Henning, A. ² <i>¹Max Planck Institute for Biological Cybernetics, MRZ, Tuebingen, Germany, ²UT Southwestern Medical Center, Advanced Imaging Research Center, Dallas, Texas, United States</i>
13:16-13:18	L01.09	Hepatic water T₂ is longer in the morning vs. evening in healthy lean subjects Mevenkamp, J. ¹ , Veeraiyah, P. ¹ , Roumans, K. H. M. ² , Wildberger, J. E. ¹ , Schrauwen, P. ² , Schrauwen-Hinderling, V. B. ¹ , Lindeboom, L. ¹ <i>¹Maastricht University Medical Center, Departments of Radiology and Nuclear Medicine, Maastricht, Netherlands, ²Maastricht University, Nutrition and Movement Sciences, Maastricht, Netherlands</i>
13:18-13:20	L01.10	Protein unfolding affects the sodium triple-quantum signal Kleimaier, D., Hu, R., Schad, L. R. <i>Heidelberg University, Computer Assisted Clinical Medicine, Mannheim, Germany</i>
13:20-13:22	L01.11	An <i>in vivo</i> proton magnetic resonance spectroscopy study with multi-echo-time technique for concurrent quantification and T₂ measurement targeting glutamate Yoo, C.-H. ¹ , Baek, H.-M. ² , Woo, D.-C. ³ , Choe, B.-Y. ¹ <i>¹The Catholic University of Korea, Seoul, South Korea, ²Gachon University,</i>

		<i>Department of Health Sciences and Technology, Incheon, South Korea, ³Asan Medical Center, Asan Institute for Life Sciences, Seoul, South Korea</i>
13:22-13:24	L01.12	Reduction of Ghost Artifacts in ³¹P EPSI Using a Gradient Impulse Response Model Dang, H. N., Ladd, M. E., Bachert, P., Korzowski, A. <i>German Cancer Research Center (DKFZ), Division of Medical Physics in Radiology, Heidelberg, Germany</i>
13:24-13:26	L01.13	An MRS Phantom Design with Multiple Compartments for Mimicking IDH Mutant and IDH Wild-Type Brain Tumors Gursan, A. ¹ , Sahin, H. ¹ , Altun, B. ¹ , Talas, A. T. ¹ , Hatay, G. H. ¹ , Kocaturk, O. ¹ , Garipcan, B. ¹ , Dincer, A. ² , Ozturk-Isik, E. ¹ <i>¹Bogazici University, Institute of Biomedical Engineering, Istanbul, Turkey, ²Acibadem Mehmet Ali Aydinlar University, Department of Radiology, Istanbul, Turkey</i>
13:26-13:28	L01.14	Gray and white matter cerebral aspartate concentrations measured with J-edited MRS Menshchikov, P. ^{1,2} , Manzhurtsev, A. ³ , Ublinskiy, M. ¹ , Akhadov, T. ¹ , Semenova, N. ² <i>¹Clinical and Research Institute of Emergency Pediatric Surgery and Traumatology, Radiology, Moscow, Russian Federation, ²Semenov Institute of Chemical Physics of RAS, Biophysics, Moscow, Russian Federation, ³Emanuel Institute of Biochemical Physics of RAS, Moscow, Russian Federation</i>
13:28-13:30	L01.15	Keyhole reconstruction of multiparametric ³¹P MRSI Neumann, S., Breitling, J., Ladd, M. E., Bachert, P., Korzowski, A. <i>German Cancer Research Center, Heidelberg, Germany</i>
13:30-13:32	L01.16	One week high-fat diet alters MTR, T2 and ADC values in the mouse hypothalamus and reward centers Campillo, B. W., Cerdan, S., Lopez-Larrubia, P., Lizarbe, B. <i>Instituto de Investigaciones Biomédicas "Alberto Sols" CSIC, Madrid, Spain</i>
13:32-13:34	L01.17	Free diffusion increases coinciding with enhanced glymphatic clearance during initial tau burden loading in a mouse model of tauopathy determined using NODDI and contrast enhanced MRI. Colgan, N. ¹ , Harrison, I. ² , Machhada, A. ² , Ismail, O. ³ , Wells, J. ² , O'Callaghan, J. ² , Zhang, H. ⁴ , Siow, B. ² , Lythgoe, M. ² <i>¹National University of Ireland Galway, Physics, Galway, Ireland, ²University College London, Centre for Advanced Biomedical Imaging, London, United Kingdom, ³University College London, London, United Kingdom, ⁴University College London, Centre for Medical Image Computing, London, United Kingdom</i>
13:34-13:36	L01.18	Imaging Changes in Blood Brain Barrier Permeability in a Human African Trypanosomiasis Mouse Model using Diffusion Weighted Multiple Boli Arterial Spin Labelling Paterson, S. ¹ , Vallatos, A. ² , Rodgers, J. ³ , Gallagher, L. ¹ , Carberry, L. ¹ , Holmes, W. ¹ <i>¹University of Glasgow, Institute of Neuroscience and Psychology, Glasgow, United Kingdom, ²University of Edinburgh, Edinburgh, United Kingdom, ³University of Glasgow, Glasgow, United Kingdom</i>
13:36-13:38	L01.19	Magnetic resonance imaging approaches to follow-up the outcome of a glioblastoma rat model with anti-inflammatory -NSAIDs and SAIDS-treatments Cabete, I. ¹ , De Galdo, A. ² , Guillén Gómez, M. J. ² , Arias-Ramos, N. ² , López-Larrubia, P. ² <i>¹University of Coimbra, Coimbra, Portugal, ²Instituto de Investigaciones Biomédicas, CSIC/UAM, Madrid, Spain</i>
13:38-13:40	L01.20	In vivo MRI assessment of the pharmacological opening of the blood brain barrier by intraperitoneal mannitol injection in mice Tessier, A., Bernard, M., Viola, A., Perles-Barbacaru, T.-A. <i>Aix-Marseille University, CRMBM UMR CNRS 7339, Marseille, France</i>
13:40-13:42	L01.21	withdrawn
13:42-13:44	L01.22	Transgenerational neuroprotection of polyphenol supplementation in neonatal hypoxia-ischemia Dumont, U. ¹ , Sanchez, S. ¹ , Beauvieux, M.-C. ¹ , Pellerin, L. ¹ , Deffieux, D. ² ,

		<p>Quideau, S.², Chateil, J.-F.¹, Bouzier-Sore, A.-K.¹, Roumes, H.¹ ¹Centre de Résonance Magnétique des Systèmes Biologiques UMR 5536 CNRS Université de Bordeaux, BORDEAUX, France, ²Univ. Bordeaux, ISM (CNRS-UMR 5255), TALENCE, France</p>
13:44-13:46	L01.23	<p>Exploring the potential of magnetic susceptibility-based MRI for identifying microstructural degradation in arterial vessels Stone, A. J.¹, Tornifoglio, B.¹, Johnston, R. D.¹, Kerskens, C.², Lally, C.¹ ¹Trinity College Dublin, Trinity Centre for Bioengineering & Department of Mechanical and Manufacturing Engineering, Dublin, Ireland, ²Trinity College Dublin, Trinity College Institute of Neuroscience, Dublin, Ireland</p>
13:46-13:48	L01.24	<p>Renal functional and metabolic sex differences in rats – assessed with hyperpolarized [1-¹³C]pyruvate MR Qi, H., Wen, Y., Mariager, C. Ø., Nielsen, P. M., Bertelsen, L. B., Stødkilde-Jørgensen, H., Laustsen, C. Aarhus University, The MR Research Centre, Department of Clinical Medicine, Århus N, Denmark</p>
13:48-13:50	L01.25	<p>In vivo and ex vivo quantification of hepatic fatty acid in mice fed with CDAA-diet using magnetic resonance spectroscopy at 9.4 T Xavier, A.¹, Zacconi, F.², Eykyn, T.³, Plaza, B.³, Phinikaridou, A.³, Andia, M.¹ ¹Pontificia Universidad Católica de Chile, Biomedical Imaging Center, Santiago, Chile, ²Pontificia Universidad Católica de Chile, Faculty of Chemistry, Santiago, Chile, ³King's College London, School of biomedical engineering and imaging sciences, London, United Kingdom</p>
13:50-13:52	L01.26	<p>Mouse model of kit-induced cancer: initial results of MRI-based monitoring of disease progression Kraiger, M.¹, Rathkolb, B.², Fuchs, H.¹, Calzada-Wack, J.¹, Klein-Rodewald, T.¹, Wolf, E.², Gailus-Durner, V.¹, Hrabě de Angelis, M.¹ ¹Helmholtz Zentrum München / Institute of Experimental Genetics, German Mouse Clinic, Munich, Germany, ²Ludwig-Maximilians-University München/ Institute of Molecular Animal Breeding and Biotechnology, Gene Center, Munich, Germany</p>
13:52-13:54	L01.27	<p>Functional MRS of GABA+, GABA- and macromolecules in human visual cortex at 3 Tesla Yakovlev, A.¹, Manzhurtsev, A.², Menshchikov, P.³, Ublinskii, M.⁴, Akhadov, T.⁴, Semenova, N.² ¹Lomonosov Moscow State University, Physics, Moscow, Russian Federation, ²Emanuel Institute of Biochemical Physics of the Russian Academy of Sciences, Moscow, Russian Federation, ³Semenov Institute of Chemical Physics of the Russian Academy of Sciences, Moscow, Russian Federation, ⁴Clinical and Research Institute of Emergency Pediatric Surgery and Trauma, Moscow, Russian Federation</p>
13:54-13:56	L01.28	<p>Lesion volume and metabolic changes in focal brain ischemia in rats treated with human induced pluripotent stem cell-derived neural precursors Ziótkowska, N.^{1,2}, Romanyuk, N.³, Jendelová, P.³, Jiráček, D.² ¹Charles University, First Faculty of Medicine, Institute of Biophysics and Informatics, Prague, Czech Republic, ²Institute for Clinical and Experimental Medicine, Department of Computed Tomography, Magnetic Resonance and Clinical Experimental Spectroscopy, Prague, Czech Republic, ³Institute of Experimental Medicine, Czech Academy of Sciences, Department of Neuroregeneration, Prague, Czech Republic</p>
13:56-13:58	L01.29	<p>Gadolinium Deposition in the brain following intravenous injection of GBCAs: Did we focus on the wrong locations? Richter, H.¹, Jeibmann, A.², Fingerhut, S.³, Radbruch, A.⁴, Sperling, M.⁵, Karst, U.⁵ ¹Clinic for Diagnostic Imaging, Vetsuisse faculty, Diagnostic Imaging Research Unit, Zürich, Switzerland, ²University hospital Münster, Institute of Neuropathology, Münster, Germany, ³University Münster, Münster, Germany, ⁴University Clinic Essen, Essen, Germany, ⁵University Münster, Institute of Inorganic and Analytical Chemistry, Münster, Germany</p>
13:58-14:00	L01.30	<p>MRI characterization of long-term cerebral alterations in a NHEJ deficient mouse model following low dose irradiation at the juvenile stage. Mouton, L.^{1,2}, Etienne, O.³, Barrière, D. A.⁴, Pérès, E.⁵, de Villartay, J.-P.⁶, Boumezbeur, F.⁴, Boussin, F.⁷, Le Bihan, D.⁴ ¹CEA/NeuroSpin, Gif sur Yvette, France, ²CEA/NeuroSpin/Frédéric Joliot</p>

		<i>Institutes, Gif sur Yvette, France, ³Stem Cells and Radiation, CEA, INSERM, Université Paris Sud, Université de Paris, LRP, UMR Genetic Stability, Fontenay-aux-Roses, France, ⁴CEA/NeuroSpin/Frédéric Joliot Institute, Gif sur Yvette, France, ⁵Normandie Univ, UNICAEN, CEA, CNRS, ISTCT/CERVOxy group, UMR6030 GIP CYCERON, Cean, France, ⁶Institut Imagine, INSERM, Université Paris Descartes Sorbonne Paris Cité, Laboratory "Genome Dynamics in the Immune System", UMR1163, Paris, France, ⁷Stem Cells and Radiation, CEA, INSERM, Université Paris Sud, Université de Paris, LRP, UMR Genetic Stability,, Fontenay-aux-Roses, France</i>
13:00-14:00 Scientific Exhibition	SE01	Software Exhibits Data Analysis: MR Imaging
	SE01.01	BreastIS: An Analysis Software for Breast Magnetic Resonance Imaging of Breast Bayrambas, B. ¹ , Hatay, G. H. ¹ , Yegin, K. ² , Ozturk-Isik, E. ¹ ¹ Bogazici University/Biomedical Engineering Institute, Istanbul, Turkey, ² Ege University, Electrical and Electronics Engineering, Izmir, Turkey
	SE01.02	VoxLogicA: Voxel-based Logical Analyser Ciancia, V. ¹ , Belmonte, G. ² , Latella, D. ¹ , Massink, M. ¹ ¹ Consiglio Nazionale delle Ricerche, Istituto di Scienza e Tecnologie dell'Informazione 'A. Faedo', Pisa, Italy, ² Azienda Ospedaliera Universitaria Senese, Medical Physics, Siena, Italy
	SE01.03	BASIL: Bayesian Inference for Quantitative Arterial Spin Labelling Perfusion Chappell, M. A. , Zhao, M. Y., Kennedy McConnell, F., Suzuki, Y., Craig, M. <i>University of Oxford, Institute of Biomedical Engineering & Wellcome Centre for Integrative Neuroimaging, Oxford, United Kingdom</i>
	SE01.04	Image reconstruction pipeline Luesebrink, F. ¹ , Luesebrink, F. ² , Mattern, H. ² , Oeltze-Jafra, S. ¹ , Oeltze-Jafra, S. ³ , Speck, O. ² , Speck, O. ³ , Speck, O. ⁴ , Speck, O. ⁵ ¹ Otto-von-Guericke University, Department of Neurology, Medicine and Digitalization, Magdeburg, Germany, ² Otto-von-Guericke University, Institute for Physics, Biomedical Magnetic Resonance, Magdeburg, Germany, ³ Center for Behavioral Sciences, Magdeburg, Germany, ⁴ German Center for Neurodegenerative Disease, Magdeburg, Germany, ⁵ Leibniz Insitute for Neurobiology, Magdeburg, Germany
	SE01.05	Platform for Enhanced Diffusion MRI Data Processing Pipeline to Guide Tumor Neurosurgery Krahulec, D. ¹ , Thiele, F. ² , Versluis, M. ¹ , de Bruin, P. ¹ , van de Ven, K. ¹ , Breeuwer, M. ¹ ¹ Philips Healthcare MR, Best, Netherlands, ² Philips GmbH Innovative Technologies, Research Laboratories, Aachen, Germany
	SE01.06	Quantiphys: Quantitative Analysis of Physiological MRI Chappell, M. A. , Croal, P., Zhao, M. Y., Craig, M. <i>University of Oxford, Institute of Biomedical Engineering & Wellcome Centre for Integrative Neuroimaging, Oxford, United Kingdom</i>
	SE01.07	CEST Simulations: Toolbox for Bloch-McConnell equations with arbitrary number of pools Herz, K., Scheffler, K., Zaiss, M. <i>MPI for Biological Cybernetics, Tuebingen, Germany</i>
15:00-16:00 Room 1 - Willem Burger Zaal	I07	The Role of Efficient MRI in Animal Imaging
	Moderation:	Wachsmuth, L., Muenster, Germany Hoerr, V., Jena, Germany
15:00-15:30	I07.01	Scanning Without Anaesthesia Gröhn, O. <i>University of Eastern Finland, A. I. Virtanen Institute, Kuopio, Finland</i>

15:30-16:00	I07.02	Fast Imaging Miroux, S. <i>CNRS, RMSB UMR5536, Bordeaux, France</i>
15:00-16:00 Room 2 - Van Weelde Zaal	S04	Gadolinium-free Imaging: Perfusion MRI
	Moderation:	Petr, J., Germany Vaclavu, L., Netherlands
15:00-15:10	S04.01	Combining Variational Optimization and Deep Learning for efficient ASL image quality enhancement Schwarzbach, M. A. ¹ , Spann, S. M. ¹ , Hammernik, K. ² , Aigner, C. S. ¹ , Pock, T. ² , Stollberger, R. ¹ ¹ Graz University of Technology, Institute of Medical Engineering, Graz, Austria, ² Graz University of Technology, Institute of Computer Graphics and Vision, Graz, Austria
15:10-15:20	S04.02	Measurement of microstructural compartment blood flow based on partial volume correction of ASL MRI using neurite orientation dispersion and density imaging (NODDI) Asllani, I. ¹ , Petitclerc, L. ² , Bozzali, M. ¹ , van Osch, M. ² , Cercignani, M. ¹ ¹ University of Sussex, Brighton, United Kingdom, ² Leiden University Medical Center, Leiden, Netherlands
15:20-15:30	S04.03	Examination of optimised PLD protocols for pCASL accounting for dispersion and macrovascular contamination over a prolonged ATT range Zhang, X. , Kennedy McConnell, F., Woods, J. G., Okell, T. W., Chappell, M. A. <i>University of Oxford, Institute of Biomedical Engineering & Wellcome Centre for Integrative Neuroimaging, Oxford, United Kingdom</i>
15:30-15:40	S04.04	Kinetics of Arterial Blood Transport in the Lung Assessed by PCASL True-FISP Imaging Martirosian, P. ¹ , Seith, F. ² , Pohmann, R. ³ , Schwartz, M. ¹ , Küstner, T. ¹ , Scheffler, K. ³ , Nikolaou, K. ² , Schick, F. ¹ ¹ University Hospital of Tübingen, Section on Experimental Radiology, Tübingen, Germany, ² University Hospital of Tübingen, Department of Diagnostic and Interventional Radiology, Tübingen, Germany, ³ Max Planck Institute for Biological Cybernetics, Tübingen, Germany
15:40-15:50	S04.05	Unchanged location of watershed areas after revascularization therapy in patients with asymptomatic internal carotid-artery stenosis Schmitzer, L. , Kaczmarz, S., Sollmann, N., Zimmer, C., Preibisch, C., Göttler, J. <i>Technical University of Munich, School of Medicine, Klinikum rechts der Isar, Department of Neuroradiology, Munich, Germany</i>
15:50-16:00	S04.06	Introduction of Venous Velocity Selective Inversion to measure venous blood T₂ Schmid, S. , Franklin, S. L., van der Plas, M. C., van Osch, M. J. <i>C.J. Gorter Center, LUMC, Radiology, Leiden, Netherlands</i>
15:00-16:00 Room 3 - Ruys & van Rijckevorsel Zaal	S05	UHF Acquisition & Artefact Corrections
	Moderation:	Niendorf, T., Germany Markenroth-Bloch, K., Sweden
15:00-15:10	S05.01	Tier system for RF safety assessment of custom built RF coils Steensma, B. , Klomp, D., Luijten, P., van den Berg, N., Raaijmakers, A. <i>University Medical Center Utrecht, Utrecht, Netherlands</i>
15:10-15:20	S05.02	Improving 7T brain scans for anatomical and functional modalities by reducing B1+ inhomogeneity; Pads or Universal Pulses? Roos, T. , Knapen, T., van der Zwaag, W. <i>Spinoza Centre for Neuroimaging, Amsterdam, Netherlands</i>

15:20-15:30	S05.03	<p>High-resolution 3-point Dixon liver imaging at 7T with B1+ homogenization using 8-channel phase shimming in parallel transmission</p> <p>Runderkamp, B.¹, Strijkers, G.², Caan, M.², van der Zwaag, W.³, Nederveen, A.¹</p> <p>¹Amsterdam UMC, location AMC, Radiology & Nuclear Medicine, Amsterdam, Netherlands, ²Amsterdam UMC, location AMC, Biomedical Engineering & Physics, Amsterdam, Netherlands, ³Spinoza Centre for Neuroimaging, Amsterdam, Netherlands</p>
15:30-15:40	S05.04	<p>Correction of temporal B0-fluctuations in ultra high resolution quantitative multi-parametric mapping (MPM) at 7T</p> <p>Vaculciakova, L., Podranski, K., Edwards, L. J., Pine, K. J., Weiskopf, N.</p> <p>Max Planck Institute for Human Cognitive & Brain Sciences, Neurophysics, Leipzig, Germany</p>
15:40-15:50	S05.05	<p>Isotropic High-Resolution DIADEM-VAT at UHF</p> <p>Tung, Y.-H.¹, In, M.-H.², Ahn, S.³, Sciarra, A.⁴, Speck, O.¹</p> <p>¹Otto von Guericke University Magdeburg, Department of Biomedical Magnetic Resonance, Magdeburg, Germany, ²Mayo Clinic, Department of Radiology, Rochester, United States, ³Siemens Healthcare, San Francisco, United States, ⁴Otto von Guericke University Magdeburg, Medicine and Digitalization, University Department of Neurology, Magdeburg, Germany</p>
15:50-16:00	S05.06	<p>Development of a dedicated flexible ¹H-³¹P RF coil for cardiac MR spectroscopy at 7 T</p> <p>Roat, S.¹, Vit, M.², Schmid, A. I.¹, Laistler, E.¹</p> <p>¹Medical University of Vienna, Division MR Physics, Center for Medical Physics and Biomedical Engineering, Vienna, Austria, ²Technical University of Liberec, Liberec, Czech Republic</p>
15:00-16:00 Room 4 - Plate & Van der Vorm Zaal	S06	Breast Imaging
	Moderation:	Rockall, A., London, United Kingdom Wijnen, J., Netherlands
15:10-15:20	S06.02	withdrawn
15:20-15:30	S06.03	<p>Q-space imaging is more sensitive to breast tumour heterogeneity than conventional diffusion MRI</p> <p>Senn, N.¹, Masannat, Y.², Husain, E.³, Siow, B.⁴, Heys, S.², He, J.¹</p> <p>¹University of Aberdeen, Aberdeen, United Kingdom, ²Aberdeen Royal Infirmary, Breast Unit, Aberdeen, United Kingdom, ³Aberdeen Royal Infirmary, Pathology, Aberdeen, United Kingdom, ⁴The Francis Crick Institute, MRI Unit, Aberdeen, United Kingdom</p>
15:30-15:40	S06.04	<p>Lipid composition of whole breast tumour is associated with lymphovascular invasion (LVI)</p> <p>Cheung, S. M.¹, Masannat, Y.², Husain, E.³, Mallikourti, V.¹, Heys, S. D.², He, J.¹</p> <p>¹University of Aberdeen, Aberdeen, United Kingdom, ²Aberdeen Royal Infirmary, Breast Unit, Aberdeen, United Kingdom, ³Aberdeen Royal Infirmary, Pathology Department, Aberdeen, United Kingdom</p>
15:40-15:50	S06.05	withdrawn
15:50-16:00	S06.06	<p>Impact of respiration-induced B₀-fluctuations on image blurring in diffusion breast imaging</p> <p>Palm, T.¹, Pistel, M.¹, Ohlmeyer, S.¹, Wenkel, E.¹, Janka, R.¹, Hensel, B.², Uder, M.¹, Laun, F. B.¹</p> <p>¹University Hospital Erlangen, Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU), Institute of Radiology, Erlangen, Germany, ²Friedrich-Alexander-Universität Erlangen-Nürnberg, Max-Schaldach-Stiftungsprofessur, Center for Medical Physics and Engineering, Erlangen, Germany</p>
15:00-15:30	L02	From Low to High Field MRI: Hardware, Safety, QA

The Stage		
	Moderation:	Stöcker, T., Germany Zivkovic, I., Netherlands
15:00-15:02	L02.01	Low magnetic field MR imaging Salameh, N. , Sarraçanie, M. <i>University of Basel / Laboratory for Adaptable MRI Technology, Department of Biomedical Engineering, Allschwil, Switzerland</i>
15:02-15:04	L02.02	Characterization of poly(sodium acrylate)/sodium silicate hydrogels with Low Field NMR Relaxometry Habina, I. ¹ , Krzyżak, A. T. ¹ , Mastalska-Popławska, J. ² , Stempkowska, A. ³ <i>¹AGH University of Science and Technology, Faculty of Geology, Geophysics and Environmental Protection, Cracow, Poland, ²AGH University of Science and Technology, Faculty of Materials Science and Ceramics, Cracow, Poland, ³AGH University of Science and Technology, Faculty of Mining and Geoengineering, Cracow, Poland</i>
15:04-15:06	L02.03	B₀ Mapping and Image Reconstruction in Low Field Permanent Magnet MRI Systems Koolstra, K. ¹ , O'Reilly, T. ¹ , Börnert, P. ² , Webb, A. ¹ <i>¹Leiden University Medical Center, Radiology, Leiden, Netherlands, ²Philips Research Hamburg, Hamburg, Germany</i>
15:06-15:08	L02.04	Fast Field-Cycling MRI for molecular dynamics imaging Broche, L. ¹ , Ross, J. ¹ , Davies, G. ¹ , Macleod, M. J. ² , Lurie, D. ¹ <i>¹University of Aberdeen, Aberdeen Biomedical Imaging Centre, Aberdeen, United Kingdom, ²NHS Grampian, Aberdeen, United Kingdom</i>
15:08-15:10	L02.05	Flexible multi-turn multi-gap coaxial coils: investigation of size- and shape-adaptation for different anatomical targets at 1.5, 3 and 7 Tesla Nohava, L. ¹ , Czerny, R. ² , Obermann, M. ² , Pichler, M. ² , Felblinger, J. ³ , Frass-Kriegl, R. ² , Ginefri, J.-C. ¹ , Laistler, E. ² <i>¹Université Paris-Sud/CNRS, Université Paris-Saclay, IR4M (Imagerie par Résonance Magnétique et Multi-Modalités), UMR 8081, Orsay, France, ²Medical University of Vienna, Division MR Physics, Center for Medical Physics and Biomedical Engineering, Vienna, Austria, ³Université de Lorraine, Inserm, IADI, Nancy, France</i>
15:10-15:12	L02.06	A highly flexible array with high intrinsic inter-element decoupling at 7T Zivkovic, I. , Ruytenberg, T., Webb, A. <i>Leiden University Medical Center, Radiology Department, Leiden, Netherlands</i>
15:12-15:14	L02.07	Fast and unconditionally safe in vivo MR head protocol for home-made coil prototype assessment at 7T Vignaud, A. ¹ , Mauconduit, F. ¹ , Gras, V. ¹ , Girard, O. ² , Kober, F. ² , Hertz-Pannier, L. ¹ , Raaijmakers, A. ³ , Boulant, N. ⁴ , Abdeddaim, R. ⁵ <i>¹CEA\NeuroSpin & Université Paris-Saclay, Gif-Sur-Yvette, France, ²Aix-Marseille Université, CNRS, CRMBM, Marseille, France, ³University Medical Center, Department of Radiology & Eindhoven University of Technology, Department of Biomedical Engineering, Utrecht & Eindhoven, Netherlands, ⁴CEA, NeuroSpin & Université Paris-Saclay, Gif-Sur-Yvette, France, ⁵Aix Marseille Université, CNRS, Centrale Marseille, Institut Fresnel, Marseille, France</i>
15:14-15:16	L02.08	Suitability analysis of different phantom fluids for MR image artifact measurements with a 7 T MR system Spronk, T. ¹ , Kraff, O. ¹ , Kreutner, J. ² , Schaeffers, G. ³ , Quick, H. ¹ <i>¹Erwin L. Hahn Institute for MR Imaging, University of Duisburg-Essen, Essen, Germany, ²MR: comp GmbH, Testing Services for MR Safety & Compatibility, Gelsenkirchen, Germany, ³MRI-STaR-Magnetic Resonance Institute for Safety, Technology and Research GmbH, Gelsenkirchen, Germany</i>
15:16-15:18	L02.09	Theoretical CNR of PERES coil array for neural current UHF MRI Solis, S. ¹ , Martin, R. ¹ , Vazquez, F. ¹ , Marrufo, O. ² , Rodriguez, A. ³ <i>¹Universidad Nacional Autónoma de México, Facultad de Ciencias, Departamento de Física, México City, México, ²National Institute of Neurology and Neurosurgery MVS, Department of Neuroimaging, México City, México, ³Universidad Autónoma Metropolitana Iztapalapa, Department of Electrical Engineering, México City, México</i>
15:18-15:20	L02.10	Development of the First Dual-Function Head & Neck Hyperthermia Applicator: The MRcollar

		<p>Bellizzi, G. G.¹, Sumser, K.¹, Forner, R.², Drizdal, T.³, van Rhoon, G. C.¹, Hernandez Tamames, J. A.⁴, Yeo, D. T.⁵, Paulides, M. M.⁶</p> <p>¹Erasmus MC Cancer Institute, Department of Radiation Oncology, Rotterdam, Netherlands, ²UMC Utrecht, Dept. Radiology, Utrecht, Netherlands, ³Czech Technical University in Prague, Department of Biomedical Technology, Prague, Czech Republic, ⁴Erasmus MC Cancer Institute, Department of Radiology, Rotterdam, Netherlands, ⁵GE Global Research, Niskayuna (NY), United States, ⁶Eindhoven University of Technology, Department of Electrical Engineering, Eindhoven, Netherlands</p>
15:20-15:22	L02.11	<p>'Model of Categories/Areas for Items' introduced for a unifying assignment of MR safety and compatibility test methods</p> <p>Schaefers, G., Engels, H.</p> <p>MRI-STaR - Magnetic Resonance Institute for Safety, Technology and Research GmbH / MR:comp GmbH, Gelsenkirchen, Germany</p>
15:22-15:24	L02.12	<p>Construction and Characterization of an Automatized Measurement System for Low Friction Surface Method according to ASTM F2213-17</p> <p>Malik, D.¹, Kreutner, J.¹, Görtz, W.¹, Schaefers, G.²</p> <p>¹MR COMP GmbH, Gelsenkirchen, Germany, ²MRI-STaR - Magnetic Resonance Research Institute for Safety, Technology and Research GmbH, Gelsenkirchen, Germany</p>
15:24-15:26	L02.13	<p>Experimental approach to evaluate currents on an AIMD-Lead using Rogowski coils</p> <p>Hammersen, V.¹, Scholz, S.², Goertz, W.², Stoeber, U.³, Kreutner, J.¹, Schaefer, G.²</p> <p>¹MRI-STaR GmbH, Gelsenkirchen, Germany, ²MR:comp GmbH, Gelsenkirchen, Germany, ³Fachhochschule Muenster, Physikalische Technik, Burgsteinfurt, Germany</p>
15:26-15:28	L02.14	<p>Effect of the BSD-2000 3D/MR hyperthermia applicator on MR Image Quality</p> <p>Sumser, K.¹, Bellizzi, G.¹, Hernandez Tamames, J.¹, van Rhoon, G.¹, Paulides, M.², Curto, S.¹</p> <p>¹Erasmus University Medical Center, Rotterdam, Netherlands, ²Eindhoven University of Technology, Eindhoven, Netherlands</p>
15:28-15:30	L02.15	<p>Investigating the role of sulfate groups for the binding process of gadolinium ions in glycosaminoglycans</p> <p>Werner, P.¹, Schuenke, P.², Krieg, L.³, Taupitz, M.⁴, Schröder, L.²</p> <p>¹Charité - Universitätsmedizin Berlin, BIOQIC, Berlin, Germany, ²Leibniz-Forschungsinstitut für Molekulare Pharmakologie (FMP), Berlin, Germany, ³Technische Universität Ilmenau, Department of Physics, Ilmenau, Germany, ⁴Charité - Universitätsmedizin Berlin, Department of Radiology, Berlin, Germany</p>
16:10-17:40 Room 1 - Willem Burger Zaal	I08	Clinical Impacts and Needs of Machine Learning
	Moderation:	Barfoot, T., Sutton, United Kingdom Rockall, A., London, United Kingdom
16:10-16:40	I08.01	<p>Towards developing clinically applicable learning-based methods for disease detection</p> <p>Konukoglu, E.</p> <p>ETH, Information Technology and Electrical Engineering, Zurich, Switzerland</p>
16:40-17:10	I08.02	<p>Time after time. Application of machine learning techniques for primary and adaptive radiotherapy treatment planning.</p> <p>Jena, R.</p> <p>University of Cambridge, Department of Oncology, Cambridge, United Kingdom</p>
17:10-17:40	I08.03	<p>Radiomics for lesion characterisation</p> <p>Fournier, L.</p> <p>Hopital Europeen Georges Pompidou - Université de Paris, Radiology, Paris, France</p>
16:10-17:40	S07	Acquisition & Reconstruction

Room 2 - Van Weelde Zaal		
	Moderation:	Caan, M., Netherlands Metere, R., Nijmegen, Netherlands
16:10-16:20	S07.01	Sampling possible reconstructions of undersampled acquisitions in MR imaging Tezcan, K. C., Baumgartner, C. F., Konukoglu, E. <i>ETH Zürich, D-ITET, Zurich, Switzerland</i>
16:20-16:40	S07.02	Radial Simultaneous Multi Slice Imaging for Passive Marker Needle Guide Tracking Reichert, A., Krafft, A. J., Bock, M. <i>Dept. of Radiology, Medical Physics, Medical Center University of Freiburg, Faculty of Medicine, University of Freiburg, Freiburg, Germany</i>
16:40-16:50	S07.03	Silent Multi-Contrast Neuroimaging Ljungberg, E. ¹ , Wood, T. ¹ , Solana, A. B. ² , Williams, S. ¹ , Wiesinger, F. ² , Barker, G. ¹ <i>¹King's College London, Neuroimaging, London, United Kingdom, ²General Electric Healthcare, ASL Europe, Munich, Germany</i>
16:50-17:00	S07.04	Golden angle spiral arterial spin labeling van der Plas, M. ¹ , Börnert, P. ² , van Osch, T. ¹ <i>¹Leiden University Medical Center, C.J. Gorter Center for High Field MRI, Department of Radiology, Leiden, Netherlands, ²Philips GmbH Innovative Technologies, Research Laboratories Hamburg, Hamburg, Germany</i>
17:00-17:10	S07.05	Long Short Term Memory Recurrent Neural Network for MR Fingerprinting parameter estimation Andriamanga, N. ¹ , Pirkl, C. M. ¹ , Sekuboyina, A. ¹ , Buonincontri, G. ² , Menzel, M. I. ³ , Gómez, P. A. ¹ , Piraud, M. ¹ , Menze, B. H. ¹ <i>¹Technische Universität München, Department of Informatics, Munich, Germany, ²IRCCS Fondazione Stella Maris, Pisa, Italy, ³GE Healthcare Global Research, Munich, Germany</i>
17:10-17:20	S07.06	Reconstruction of Dynamic Perfusion and Angiography Images from Sub-sampled Hadamard Time-encoded ASL Data using Deep Convolutional Neural Networks Yousefi, S., Sokooti, H., Hirschler, L., van der Plas, M., Petitclerc, L., Staring, M., J.P. van Osch, M. <i>Leiden University Medical Center, Radiology, Leiden, Netherlands</i>
17:20-17:30	S07.07	Recent Developments in Electrical Properties Tomography with the 3D Contrast Source Inversion Approach Leijssen, R. ¹ , Brink, W. ¹ , Remis, R. ² , Webb, A. ¹ <i>¹Leiden University Medical Center, Leiden, Netherlands, ²Delft University of Technology, Delft, Netherlands</i>
17:30-17:40	S07.08	Mapping whole brain cardiac and respiratory induced tissue motion using a single-shot multi-slice acquisition with at 7T MRI. Sloots, J. J. ¹ , Luijten, P. ¹ , Biessels, G. J. ² , Zwanenburg, J. ¹ <i>¹University Medical Center Utrecht, Radiology, Utrecht, Netherlands, ²University Medical Center Utrecht, Neurology, Utrecht, Netherlands</i>
16:10-17:40 Room 3 - Ruys & van Rijkevorsel Zaal	S08	New Findings in Neuroradiology
	Moderation:	Ronen, I., Netherlands Branzoli, F., Netherlands
16:10-16:20	S08.01	Investigating links of cardiac rehabilitation to white matter macrostructure integrity in coronary artery disease patients. Anazodo, U. ¹ , Dacey, M. ² , Poirier, S. ¹ , Suskin, N. ³ , McIntyre, C. ¹ , St Lawrence, K. ¹ , Shoemaker, K. ⁴ <i>¹Lawson Health Research Institute, Medical Biophysics, London, Canada, ²Lawson Health Research Institute, London, Canada, ³Western University, Cardiology, London, Canada, ⁴Western University, School of Kinesiology, London, Canada</i>

16:20-16:30	S08.02	<p>Are physical activity and sedentary time associated with measures of structural brain connectivity? - Novel insights from The Maastricht Study Vergoossen, L.¹, Jansen, J.¹, Stehouwer, C.², Schaper, N.², Henry, R.², van der Kallen, C.², Koster, A.³, Schram, M.², Backes, W.¹ ¹Maastricht University Medical Center, Radiology and Nuclear Medicine; School for Mental Health and Neuroscience, Maastricht, Netherlands, ²Maastricht University Medical Center, Internal Medicine; School for Cardiovascular Disease, Maastricht, Netherlands, ³Maastricht University, Social Medicine; School for Public Health and Primary Care, Maastricht, Netherlands</p>
16:30-16:40	S08.03	<p>Evaluation of thalamo-cortical connectivity using diffusion-weighted MRI in infants with epilepsy associated with thalamic lesions Oliveira, A. R.¹, Figueiredo, P.¹, Leal, A.², G. Nunes, R.¹ ¹ISR-Lisboa/LARSyS and Department of Bioengineering, Instituto Superior Técnico, Universidade de Lisboa, Lisbon, Portugal, ²Department of Neurophysiology, Centro Hospitalar Psiquiátrico de Lisboa, Lisbon, Portugal</p>
16:40-16:50	S08.04	<p>Diffusion-weighted imaging reveals structural brain changes in cosmonauts after long-duration spaceflight. Jillings, S.¹, Van Ombergen, A.², Tomilovskaya, E.³, Laureys, S.⁴, zu Eulenburg, P.⁵, Sunaert, S.⁶, Sijbers, J.⁷, Wuyts, F.¹, Jeurissen, B.⁷ ¹University of Antwerp, Dept. of Physics, Lab for Equilibrium Investigations and Aerospace, Antwerp, Belgium, ²University of Antwerp, Dept. ENT, Translational Neurosciences, Antwerp, Belgium, ³Russian Academy of Sciences, Institute of Biomedical Problems, Moscow, Russian Federation, ⁴University of Liège, Dept. of Neurology, GIGA Consciousness, Liège, Belgium, ⁵Ludwig-Maximilian's University, Dept. of Neurology, Deutsches Schwindel- und Gleichgewichtszentrum, Munich, Germany, ⁶University of Leuven, Dept. of Imaging and Pathology, Translational MRI, Leuven, Belgium, ⁷University of Antwerp, Dept. of Physics, imec-Vision Lab, Antwerp, Belgium</p>
16:50-17:00	S08.05	<p>The added value of radiomics to a clinical prognostic model in patients with low-grade glioma van Riel, M.¹, Incekara, F.¹, van der Voort, S.¹, Wijnenga, M.², Klein, S.¹, van den Bent, M.³, Smits, M.¹ ¹Erasmus MC, Radiology, Rotterdam, Netherlands, ²Erasmus MC, Neurology, Rotterdam, Netherlands, ³Erasmus MC, Neuro-Oncology, Rotterdam, Netherlands</p>
17:00-17:10	S08.06	<p>Implementation and validation of ASL perfusion measurements for population-based imaging Warnert, E. A. H.¹, Steketee, R.¹, Vernooij, M.², Hernandez-Tamames, J. A.¹, Vogel, M.³, Kotek, G.¹ ¹Erasmus MC, Radiology & Nuclear Medicine, Rotterdam, Netherlands, ²Erasmus MC, Epidemiology, Rotterdam, Netherlands, ³GE Global Research, Munich, Germany</p>
17:10-17:20	S08.07	<p>In-vivo functional and structural MRI of the sensory thalamic nucleus Sanchez Panchuelo, R., Ali, M., Aphiwatthanasumet, K., Gowland, P., Bowtell, R. University of Nottingham, Sir Peter Mansfield Imaging Centre, Nottingham, United Kingdom</p>
17:20-17:30	S08.08	<p>withdrawn</p>
17:30-17:40	S08.09	<p>Diffusion kurtosis imaging in assessment of interhemispheric and associative pathways of patients with severe traumatic brain injury Pogosbekian, E.¹, Sharova, E.², Chelyapina-Postnikova, M.², Fadeeva, L.¹, Zakharova, N.¹, Pronin, I.¹ ¹Federal State Autonomous Institution «N.N. Burdenko National Scientific and Practical Center for Neurosurgery» of the Ministry of Healthcare of the Russian Federation, Neuroimaging, Moscow, Russian Federation, ²Institute of Higher Nervous Activity and Neurophysiology of RAS, Laboratory of General and Clinical Neurophysiology, Moscow, Russian Federation</p>
16:10-17:40 Room 4 - Plate & Van der Vorm Zaal	I09	<p>Could Sugars be Used as an Alternative to Contrast Agents? Insights from the GLINT Project</p>

	Moderation:	Aime, S., Torino, Italy Zaiss, M., Tübingen, Germany
16:10-16:25	I09.01	Glucose as a Contrast Agent for MRI: The Hopes, the Hype and the Facts Longo, D. <i>National Research Council of Italy (CNR), Institute of Biostructure and Bioimaging, Turin, Italy</i>
16:25-16:40	I09.02	GlucoCEST Signal Origin: Controversies and Spins Eleftheriou, A. <i>University of Zurich, Institute of Pharmacology and Toxicology, Zurich, Switzerland</i>
16:40-16:55	I09.03	Sugars and Mice: What can be Learned from the Use of Glucose and Analogues in Animals Rivlin, M. <i>Tel-Aviv University, School of Chemistry, Tel-Aviv, Israel</i>
16:55-17:10	I09.04	Translation to the Clinics: "DOs and DON'Ts" Kim, M. <i>University College London, London, United Kingdom</i>
17:10-17:25	I09.05	Clinical Usability: "Potential Diagnostic Benefits" Lindig, T. <i>University Hospital Tübingen, Tübingen, Germany</i>
17:25-17:40	I09.06	Wrap-up and Future Direction: A GLINT of Hope? Golay, X. <i>University College London, London, United Kingdom</i>

Friday, October 4, 2019

08:00-09:00 Room 1 - Willem Burger Zaal	I10	Machine Learning for Acquisition
	Moderation:	O'Regan, D., United Kingdom Uecker, M., Germany
08:00-08:30	I10.01	Artefact Reduction with Machine Learning Kuestner, T. <i>King's College London, London, United Kingdom</i>
08:30-09:00	I10.02	A Short Review of Current Trends in Deep Learning for Magnetic Resonance Fingerprinting Maier, A. <i>Friedrich-Alexander-University Erlangen-Nuremberg, Computer Science, Erlangen, Germany</i>
08:00-09:00 Room 2 - Van Weelde Zaal	I11	Non-Gadolinium Based Contrast Agents
	Moderation:	van der Molen, A. J., Netherlands Faber, C., Germany
08:00-08:30	I11.01	An Overview of MRI-based Contrast Agents Longo, D. <i>National Research Council of Italy (CNR), Institute of Biostructures and Bioimaging (IBB), Turin, Italy</i>
08:30-09:00	I11.02	Clinical Applications of SPIOs Yilmaz, A. <i>University Hospital Münster, Department of Cardiology I, Division of Cardiovascular Imaging, Münster, Germany</i>
08:00-09:00 Room 3 - Ruys & van Rijckevorsel Zaal	I12	Maximising the Value of MR - From Methods to Clinical Routine
	Moderation:	Golay, X., London, United Kingdom Prokop, M., Nijmegen, Netherlands
08:00-08:30	I12.01	From Research Methodology to Clinical Product Langs, G. <i>Medical University of Vienna, Computational Imaging Research Lab, Vienna, Austria</i>
08:30-09:00	I12.02	Value-based MRI van Buchem, M. <i>Leiden University Medical Center, Radiology, Leiden, Netherlands</i>
09:15-10:30 Room 1 - Willem Burger Zaal	I13	Machine Learning in MRI
	Moderation:	Prieto Vasquez, C., United Kingdom Smits, M., Netherlands
09:15-09:40	I13.01	Current Role of Machine Learning in MRI Schnabel, J. <i>King's College London, UK, School of Biomedical Engineering and Imaging Sciences, London, United Kingdom</i>
09:40-10:05	I13.02	Collaboration of Academia and Industry in Machine Learning Knoll, F. <i>NYU, New York, United States</i>
10:05-10:30	I13.03	What is Needed to Get Machine Learning into Clinical Practice Prokop, M.

		<i>Radboudumc, Radiology and Nuclear Medicine, Nijmegen, Netherlands</i>
10:50-12:20 Room 1 - Willem Burger Zaal	S09	Machine Learning in MRI
	Moderation:	Prieto Vasquez, C., United Kingdom Günther, M., Germany
10:50-11:00	S09.01	A deep learning approach for reconstruction of undersampled Cartesian and Radial data Chatterjee, S. ¹ , Breitkopf, M. ¹ , Sarasaen, C. ¹ , Rose, G. ² , Nürnberger, A. ³ , Speck, O. ¹ ¹ <i>Otto von Guericke University, Biomedical Magnetic Resonance, Magdeburg, Germany</i> , ² <i>Otto von Guericke University, Institute of Medical Engineering (IMT), Magdeburg, Germany</i> , ³ <i>Otto von Guericke University, Data & Knowledge Engineering Group, Magdeburg, Germany</i>
11:00-11:10	S09.02	In silico proof-of-principle for reproducible brain tumor predictions on individual NMR voxels based on endogenous microvascular susceptibility effects using support vector machine classification Hahn, A. ¹ , Bode, J. ² , Schuegger, S. ³ , Sturm, V. J. F. ¹ , Breckwoldt, M. O. ¹ , Heiland, S. ¹ , Ziener, C. H. ⁴ , Bendszus, M. ¹ , Kurz, F. T. ¹ ¹ <i>Heidelberg University Hospital, Department of Neuroradiology, Heidelberg, Germany</i> , ² <i>German Cancer Research Center (DKFZ), Schaller Research Group, Molecular Mechanisms of Tumor Invasion, Heidelberg, Germany</i> , ³ <i>University of Heidelberg, Department of Physics and Astronomy, Heidelberg, Germany</i> , ⁴ <i>German Cancer Research Center (DKFZ), Department of Radiology E010, Heidelberg, Germany</i>
11:10-11:20	S09.03	Classification of Crohn's Disease in Terminal Ileum Based on Cine Magnetic Resonance Enterography at 3T Bayrambas, B. ¹ , Hatay, G. H. ¹ , Ozturk-Isik, E. ¹ , Algin, O. ² ¹ <i>Bogazici University/Biomedical Engineering Institute, Istanbul, Turkey</i> , ² <i>Bilkent University, National MR Research Center (UMRAM), Ankara, Turkey</i>
11:20-11:30	S09.04	Deep Learning for 3D MR Fingerprinting: A dual pathway parameter mapping and reconstruction approach Horvath, I. ¹ , Pirkl, C. M. ¹ , Buonincontri, G. ² , Menzel, M. I. ³ , Gómez, P. A. ¹ , Menze, B. H. ¹ ¹ <i>Technical University of Munich, Informatics, Garching, Germany</i> , ² <i>IRCCS Fondazione Stella Maris, Pisa, Italy</i> , ³ <i>GE Healthcare Global Research, Munich, Germany</i>
11:30-11:40	S09.05	A deep learning approach to T1 mapping in quantitative MRI Ribeiro Sabidussi, E. ¹ , Nicastro, M. ² , Bazrafkan, S. ² , Beirinckx, Q. ² , Jeurissen, B. ² , den Dekker, A. J. ² , Klein, S. ¹ , Poot, D. H. J. ¹ ¹ <i>Erasmus Medical Center, Biomedical Imaging Group Rotterdam - Department of Radiology and Medical Informatics, Rotterdam, Netherlands</i> , ² <i>University of Antwerp, imec - Visionlab, Department of Physics, Antwerp, Belgium</i>
11:40-11:50	S09.06	MRI zero – Fully automated invention of MRI sequences using supervised learning Loktyushin, A. ¹ , Herz, K. ² , Glang, F. ² , Schölkopf, B. ³ , Scheffler, K. ² , Zaiss, M. ² ¹ <i>Max Planck Institute for Biological Cybernetics, High-field Magnetic Resonance, Tübingen, Germany</i> , ² <i>Max Planck Institute for Biological Cybernetics, Tübingen, Germany</i> , ³ <i>Max Planck Institute for Intelligent Systems, Tübingen, Germany</i>
11:50-12:00	S09.07	Efficient and Robust Reconstruction using the Recurrent Inference Machine Karkalousos, D. ¹ , Lønning, K. ² , Dumoulin, S. O. ¹ , Sonke, J.-J. ² , Caan, M. W. ³ ¹ <i>Spinoze Centre for Neuroimaging, Amsterdam, Netherlands</i> , ² <i>Netherlands Cancer Institute, Amsterdam, Netherlands</i> , ³ <i>Amsterdam UMC, Biomedical Engineering & Physics, Amsterdam, Netherlands</i>
12:00-12:10	S09.08	Can a Convolutional Neural Network reduce the Measurement Time for ²³Na Quantification? Adlung, A. ¹ , Paschke, N. ¹ , Schnurr, A.-K. ¹ , Neumaier Probst, E. ² , Mohamed, S. ² , Samartzi, M. ³ , Fatar, M. ³ , Schad, L. R. ¹ ¹ <i>Computer Assisted Clinical Medicine, Medical Faculty Mannheim, Heidelberg University, Mannheim, Germany</i> , ² <i>Department of Neuroradiology, University</i>

		<i>Medical Center and Medical Faculty Mannheim, Heidelberg University, Mannheim, Germany, ³Department of Neurology, University Medical Center and Medical Faculty Mannheim, Heidelberg University, Mannheim, Germany</i>
12:10-12:20	S09.09	Adversarial inpainting of MR images using deep adversarial networks Armanious, K. ¹ , Küstner, T. ² , Yang, B. ¹ , Gatidis, S. ³ <i>¹University of Stuttgart, Institute of Signal Processing and System Theory, Stuttgart, Germany, ²King's College London, Biomedical Engineering Department, London, United Kingdom, ³University Hospital of Tübingen, Department of Radiology, Tübingen, Germany</i>
10:50-11:50 Room 2 - Van Weelde Zaal	S10	MR Spectroscopy Methods
	Moderation:	Branzoli, F., Netherlands Mekle, R., Germany
10:50-11:00	S10.01	Phosphor MRI compared to CSI at 7T Froeling, M., van der Velden, T. A., Gosselink, M., Mens, G., Hoogduin, H., Klomp, D. W. <i>University Medical Center Utrecht, Department of Radiology, Utrecht, Netherlands</i>
11:00-11:10	S10.02	Quantification of ³¹P MR Spectra using Deep Learning Dang, H. N., Ladd, M. E., Bachert, P., Korzowski, A. <i>German Cancer Research Center (DKFZ), Division of Medical Physics in Radiology, Heidelberg, Germany</i>
11:10-11:20	S10.03	Towards structure and metabolism of glycogen C₁-C₆ by localized ¹³C MRS at 7T using broadband ¹H-decoupling and low-power NOE by means of bi-level WALTZ cycles Serés Roig, E. ¹ , Gruetter, R. ² <i>¹Laboratory of Functional and Metabolic Imaging (LIFMET), Ecole Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Switzerland, ²Laboratory of Functional and Metabolic Imaging (LIFMET) - Centre d'Imagerie BioMédicale (CIBM), Ecole Polytechnique de Lausanne (EPFL), Lausanne, Switzerland</i>
11:20-11:30	S10.04	CEST effect of agar: It's not a neutral baseline for realistic CEST-MRI parameter optimization Mueller, S., Pohmann, R., Scheffler, K., Zaiss, M. <i>Max Planck Institute for Biological Cybernetics, High-field Magnetic Resonance Center, Tuebingen, Germany</i>
11:30-11:40	S10.05	Feasibility of functional spectroscopy on a clinical (3T) scanner Bednarik, P. ¹ , Svatkova, A. ² , Deelchand, D. ³ , Silani, G. ⁴ , Lanzenberger, R. ⁵ , Bogner, W. ¹ <i>¹Medical University of Vienna, High Field MR Center, Department of Biomedical Imaging and Image-guided Therapy, Vienna, Austria, ²Medical University of Vienna, Department of Medicine III, Clinical Division of Endocrinology and Metabolism, Vienna, Austria, ³University of Minnesota, Center for Magnetic Resonance Research, Department of Radiology, Vienna, Austria, ⁴University of Vienna, Department of Applied Psychology: Health, Development, Enhancement and Intervention, Vienna, Austria, ⁵Medical University of Vienna, Department of Psychiatry and Psychotherapy, Vienna, Austria</i>
11:40-11:50	S10.06	Complex selection determine phases of ¹H and ¹⁹F MR signals in SABRE-based hyperpolarization Ringleb, R. ¹ , Euchner, F. ¹ , Hadjiali, S. ² , Bommerich, U. ¹ , Bruns, C. ¹ , Bargon, J. ³ , Buntkowsky, G. ² , Bernarding, J. ¹ , Plaumann, M. ¹ <i>¹Otto-von-Guericke University Magdeburg, Institute for Biometrics and Medical Informatics, Magdeburg, Germany, ²Technical University Darmstadt, Institute of Physical Chemistry, Darmstadt, Germany, ³University of Bonn, Institute of Physical and Theoretical Chemistry, Bonn, Germany</i>
10:50-12:20 Room 3 - Ruys & van Rijckevorsel Zaal	I14	The Expert's Viewpoint from Outside Europe: CSMRM on Gadolinium-free Imaging

	Moderation:	van Osch, M., Netherlands Wang, M., Henan, China
10:50-11:20	I14.01	Current Advances in Psychoradiology Gong, Q. <i>Sichuan, China</i>
11:20-11:50	I14.02	Renal Functional MRI: Techniques and Applications Ju, S. <i>Zhongda, China</i>
11:50-12:20	I14.03	Non-Contrast Enhanced MRI in CNS Wang, M. <i>Henan, China</i>
10:50-12:20 Room 4 - Plate & Van der Vorm Zaal	S11	Abdomen, Thorax & Pelvis
	Moderation:	Rockall, A., London, United Kingdom van der Molen, A. J., Netherlands
10:50-11:00	S11.01	CNN-based interpolation for data augmentation of dynamic lung MRI Van Loo, H.¹, Wang, Y.² <i>¹Karolinska University Hospital, Huddinge, Sweden, ²Karolinska University Hospital Solna, MR Physics, Stockholm, Sweden</i>
11:00-11:10	S11.02	Assessment of Liver Fibrosis Stage Using Machine Learning and Feature Extraction of Gadoxetate-Enhanced MR Images Karlsson, M. , Lu, Y.-C., Lundberg, P. <i>Linköping University, Department of Medical and Health Sciences, Linköping, Sweden</i>
11:10-11:20	S11.03	Supervised risk prediction of transition zone cancer lesions in the prostate using GOIA-sLASER ¹H MR spectroscopic imaging without endorectal coil. Gholizadeh, N. ¹ , Greer, P. ² , Simpson, J. ² , Al-iedani, O. ¹ , Lau, P. ³ , Heerschap, A. ⁴ , Ramadan, S. ¹ <i>¹University of Newcastle, Health and Medicine, New Castle, Australia, ²University of Newcastle, Radiation Oncology, New Castle, Australia, ³University of Newcastle, Radiology, New Castle, Australia, ⁴Radboud University Nijmegen, Radiology and Nuclear Medicine, Nijmegen, Netherlands</i>
11:20-11:30	S11.04	MR Elastography of the liver: correlation with T₁ mapping Kremser, C. , Plaikner, M., Henninger, B. <i>Medical University of Innsbruck, Radiology, Innsbruck, Austria</i>
11:30-11:40	S11.05	Accelerated Free-Breathing Self-Gated 4D-Lung MRI with wave-CAIPI Richter, J. A. J.¹, Wech, T.¹, Weng, A. M.¹, Stich, M.¹, Weick, S.², Köstler, H.¹ <i>¹University Hospital Würzburg, Department of Diagnostic and Interventional Radiology, Würzburg, Germany, ²University Hospital Würzburg, Department of Radiation Oncology, Würzburg, Germany</i>
11:40-11:50	S11.06	Feasibility of a non-invasive Short MRI Surveillance (SMS) protocol as a screening tool for hepatocellular carcinoma (HCC) in high risk patients Willemsen, F. , de Lussanet de la Sablonière, Q., Fiduzi, F., Els, C., Krestin, G., Dwarkasing, R. <i>Erasmus University Medical Center, Radiology, Rotterdam, Netherlands</i>
11:50-12:00	S11.07	Comparative evaluation of multifrequency MRE parameters for the assessment of fibrosis and inflammation in a small animal model of nonalcoholic steatohepatitis. Julea, F.¹, Dioguardi Burgio, M.², Paradis, V.³, Doblaz, S.¹, Pagé, G.¹, Vilgrain, V.², van Beers, B.², Garteiser, P.¹ <i>¹Laboratory of Imaging Biomarkers, UMR1149 INSERM-University Paris Diderot, Paris, France, ²Radiology department, Hôpital Beaujon, AP-HP, Clichy,</i>

		France, ³ Histopathology department, Hôpital Beaujon, AP-HP, Clichy, France
12:00-12:10	S11.08	Assessment of local human brown adipose tissue changes after cold exposure Sardjoe Mishre, A. S. D. ¹ , Burakiewicz, J. ¹ , Abreu-Vieira, G. ² , Janssen, L. G. ² , Nahon, K. J. ² , Boon, M. R. ² , Webb, A. G. ¹ , Rensen, P. C. N. ² , Kan, H. E. ¹ ¹ Leiden University Medical Center (LUMC), Radiology, Leiden, Netherlands, ² Leiden University Medical Center (LUMC), Division of Endocrinology, Leiden, Netherlands
12:10-12:20	S11.09	A single-center large retrospective analysis on biparametric prostate MRI Pesapane, F. ^{1,2} , Agazzi, G. M. ³ , Tantrige, P. ⁴ , Acquasanta, M. ¹ , Codari, M. ⁵ , Mattiuz, C. ⁵ , Esseridou, A. ⁵ , Sardanelli, F. ⁶ ¹ Università degli Studi di Milano, Postgraduation School in Radiodiagnostic, Milan, Italy, ² -, -, Italy, ³ Università degli Studi di Brescia, Radiology Department, Brescia, Italy, ⁴ King's College Hospital, Interventional Radiology, London, United Kingdom, ⁵ IRCCS Policlinico San Donato, Radiology Department, San Donato Milanese, Italy, ⁶ Università degli Studi di Milano, Department of Biomedical Sciences for Health, Milan, Italy
10:50-11:50 The Stage	L03	Diffusion, Perfusion & CEST
	Moderation:	Mutsaerts, H.-J., Netherlands Barbier, E., France
10:50-10:52	L03.01	Characterization of heating artifacts in opto-fMRI studies Schache, D. , Albers, F., Wachsmuth, L., Faber, C. Westfälische Wilhelms-Universität Münster, Institut für klinische Radiologie, Münster, Germany
10:52-10:54	L03.02	Comparison of MEMRI and diffusion MRI evaluation of a feeding/fasting paradigm in glioblastoma bearing rats. González, S., Guadilla, I. , Navarro-Hernanz, T., López-Larrubia, P. Instituto de Investigaciones Biomédicas Alberto Sols CSIC-UAM, Madrid, Spain
10:54-10:56	L03.03	Improved accuracy of fibers tractography with use of BSD-DTI method - a study on a human muscle Obuchowicz, R. ¹ , Krzyżak, A. ² ¹ Collegium Medicum of Jagiellonian University, Kraków, Poland, ² AGH University of Science and Technology, Kraków, Poland
10:56-10:58	L03.04	withdrawn
10:58-11:00	L03.05	Variability of NODDI metrics between AMICO and original NODDI in UK Biobank data Maximov, I. I. , Westlye, L. T. University of Oslo, Oslo, Norway
11:00-11:02	L03.06	MR tractography and MR neurography of brachial plexus Ibrahim, I. ¹ , Tintera, J. ¹ , Beran, J. ¹ , Skoch, A. ¹ , Nagy, M. ¹ , Rolencova, E. ¹ , Humhej, I. ² , Flusserova, V. ³ , Hajek, M. ¹ ¹ IKEM, MR Unit, Prague, Czech Republic, ² J. E. Purkyně University, Masaryk Hospital, Department of Neurosurgery, Usti nad Labem, Czech Republic, ³ IKEM, Department of Neurology, Prague, Czech Republic
11:02-11:04	L03.07	A comparison of response function tensor models for multi-tissue spherical deconvolution. Morez, J. , Sijbers, J., Jeurissen, B. University of Antwerp, Department of Physics, imec-Visionlab, Antwerp, Belgium
11:04-11:06	L03.08	Application of anisotropic phantoms with laminar and cylindrical pores to determination of important parameters characterizing porous media Mazur, W. , Krzyżak, A. T. AGH University of Science and Technology, Department of Fossil Fuels, Krakow, Poland
11:06-11:08	L03.09	Combined functional and structural evaluation of language processing augmented with network analysis reveals task-specific lateralization differences - a DTI-fMRI correlation study

		Gyebnár, G. , Kozák, L. R. <i>Semmelweis University, MR Research Center, Budapest, Hungary</i>
11:08-11:10	L03.10	Optimization of b-values for characterization of glioma by intravoxel incoherent motion (IVIM) Jalnefjord, O. ¹ , Arvidsson, J. ¹ , Björkman-Burtscher, I. ² , Ljungberg, M. ¹ ¹ <i>University of Gothenburg, Department of Radiation Physics, Gothenburg, Sweden</i> , ² <i>University of Gothenburg, Department of Radiology, Gothenburg, Sweden</i>
11:10-11:12	L03.11	Prognostic value of dynamic perfusion MRI imaging in patients with local advanced rectal cancer in the assessment of chemo-radiation treatment: comparison with ADC-map values. Arcuri, P. P. ¹ , Sikora, A. ² , Roccia, S. ³ , Fodero, G. ¹ , Bertucci, C. ¹ , Mazzei, E. ⁴ , Aiello, V. ⁵ , Lagana', D. ² ¹ <i>A.O. Pugliese Ciaccio, Radiology, Catanzaro, Italy</i> , ² <i>Magna Graecia University, Radiology, Catanzaro, Italy</i> , ³ <i>A.O. Pugliese Ciaccio, Epidemiology, Catanzaro, Italy</i> , ⁴ <i>A.O. Pugliese Ciaccio, Radioterapy, Catanzaro, Italy</i> , ⁵ <i>Magna Graecia University, Medicine, Catanzaro, Italy</i>
11:12-11:14	L03.12	Evaluation of Manganese dimercaptosuccinate (Mn-DMSA) complex as contrast agent for paramagnetic enhancement in MRI studies of malignant tumors in animals Ussov, W.-Y. ¹ , Filimonov, V. D. ² , Kovalenko, A. ¹ , Belyanin, M. L. ² , Bezlepkin, A. ³ , Rogovskaya, Y. ⁴ , Shimanovsky, N. L. ⁵ ¹ <i>Tomsk Medical Research Center/ Institute of Cardiology, MRI Res. Lab, Tomsk, Russian Federation</i> , ² <i>National Research Tomsk Polytechnic University, Biotechnology and Organic Chemistry, Tomsk, Russian Federation</i> , ³ <i>"Aibolit" Veterinary Clinic, Tomsk, Russian Federation</i> , ⁴ <i>Tomsk Medical Research Center/ Institute of Cardiology, Dept. of anatomic pathology, Tomsk, Russian Federation</i> , ⁵ <i>N.I.Pirogov Moscow Medical Research University, Molecular Pharmacology, Moscow, Russian Federation</i>
11:14-11:16	L03.13	On the diagnostic capability of a dinuclear blood pool GBCA in a pathological model of rat cerebral ischemia La Cava, F. ¹ , Fringuello Mingo, A. ² , Colombo Serra, S. ² , Irrera, P. ¹ , Di Vito, A. ² , Cabella, C. ² , Miragoli, L. ² , Terreno, E. ¹ , Poggi, L. ² ¹ <i>Università di Torino, Department of Molecular Biotechnology and Health Center, Torino, Italy</i> , ² <i>Bracco Imaging spa, Colleretto Giacosa, Italy</i>
11:16-11:18	L03.14	Repeatability of Perfusion Measurements in Gliomas Using Pulsed and Pseudo-continuous Arterial Spin Labelling MRI Alsaedi, A. ¹ , Thomas, D. ¹ , De Vita, E. ² , Panovska-Griffiths, J. ³ , Bisdas, S. ¹ , Golay, X. ¹ ¹ <i>UCL Queen Square Institute of Neurology, Department of Brain Repair & Rehabilitation, London, United Kingdom</i> , ² <i>King's College, Biomedical Engineering Department, London, United Kingdom</i> , ³ <i>University College London, Department of Applied Health Research, London, United Kingdom</i>
11:18-11:20	L03.15	Glx dynamics in visual cortex after single stimulus. fMRI and ¹H fMRS study. Ublinskiy, M. ¹ , Semenova, N. ² , Manzhurtsev, A. ² , Yakovlev, A. ³ , Menshchikov, P. ¹ , Akhadov, T. ¹ ¹ <i>Clinical and Research Institute of Urgent Pediatric Surgery and Trauma (CRIEPST), Radiology, Moscow, Russian Federation</i> , ² <i>Institute of Biochemical Physics (IBCP), Russian Academy of Sciences (RAS), Moscow, Russian Federation</i> , ³ <i>Moscow State University (MSU), Moscow, Russian Federation</i>
11:20-11:22	L03.16	Shimming scheme effect on single shot EPI-based pCASL perfusion measurement Doshi, H. ¹ , Lamalle, L. ² ¹ <i>Université Grenoble Alpes, SFR RMN biomédicale et Neurosciences — UMS IRMaGe, Grenoble, France</i> , ² <i>Inserm, US 17, Grenoble, France</i>
11:22-11:24	L03.17	Quantification of Multiple Boli Arterial Spin Labelling in Mice and Rats Paterson, S. ¹ , Vallatos, A. ² , Holmes, W. ¹ ¹ <i>University of Glasgow, Institute of Neuroscience and Psychology, Glasgow, United Kingdom</i> , ² <i>University of Edinburgh, Edinburgh, United Kingdom</i>
11:24-11:26	L03.18	ASL-BIDS, the brain imaging data structure extension for arterial spin labeling Clement, P. ¹ , Castellaro, M. ² , Okell, T. ³ , Thomas, D. ⁴ , Gorgolewski, C. ⁵ , Appelhoff, S. ⁶ , Petr, J. ⁷ , Chappell, M. ⁸ , Mutsaerts, H.-J. ⁹

		<i>¹Ghent University, Dep. of Diagnostic Sciences - Radiology, Ghent, Belgium, ²University of Padova, Padova Neuroscience Center, Padova, Italy, ³University of Oxford, Oxford, United Kingdom, ⁴University College London, London, United Kingdom, ⁵Stanford University, Stanford, United States, ⁶Max Planck Institute for Human Development, Berlin, Germany, ⁷Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany, ⁸Institute of Biomedical Engineering, University of Oxford, Oxford, United Kingdom, ⁹Amsterdam University Medical Center, Leiden, Netherlands</i>
11:26-11:28	L03.19	How to quantify ASL values in a perfusion phantom Golay, X. ¹ , Oliver-Taylor, A. ¹ , Susuzi, Y. ² , Chappell, M. ² <i>¹Gold Standard Phantoms Ltd, London, United Kingdom, ²Oxford University, Institute of Biomedical Engineering, Oxford, United Kingdom</i>
11:28-11:30	L03.20	Investigating the existence of bias in ASL sequences: evaluation of perfusion measurements in phantom with 2D and 3D EPI pseudo-continuous ASL sequences Brumer, I. ¹ , Chacon-Caldera, J. ¹ , Hubertus, S. ¹ , Uhrig, T. ¹ , Dziadosz, M. ² , Barth, M. ³ , Schad, L. R. ¹ , Zöllner, F. G. ¹ <i>¹Computer Assisted Clinical Medicine, Medical Faculty Mannheim, Heidelberg University, Mannheim, Germany, ²Magnetic Resonance Spectroscopy and Methodology, Department of Biomedical Research, University of Bern, Bern, Switzerland, ³School of Information Technology and Electrical Engineering and Centre for Advanced Imaging, University of Queensland, Brisbane, Australia</i>
11:30-11:32	L03.21	Unsupervised clustering on measurements derived from ASL and structural MR imaging of the brain can identify separated patterns in a cohort of MCI and SCI subjects. Bosco, P. ¹ , Biagi, L. ¹ , Cioni, G. ¹ , Matteoli, M. ² , Tosetti, M. ¹ , the Train the Brain Consortium, & ³ <i>¹IRCCS Stella Maris Foundation, Pisa, Italy, ²Institute of Neuroscience of the CNR, Pisa, Italy, ³the Train the Brain Consortium, Pisa, Italy</i>
11:32-11:34	L03.22	Characterization and Validation Protocol for a Perfusion Phantom used in Arterial Spin Labeling Experiments Petitclerc, L. , Teeuwisse, W. M., van Osch, M. J. P. <i>Leids Universitair Medisch Centrum, C.J. Gorter Center for High Field MRI, Leiden, Netherlands</i>
11:34-11:36	L03.23	3D GRASE readout optimization for time-encoded pCASL Paschoal, A. M. ¹ , Schmid, S. ¹ , Franklin, S. L. ¹ , van der Plas, M. C. ¹ , Leoni, R. F. ² , van Osch, M. J. ¹ <i>¹C.J. Gorter Center for High Field MRI, Department of Radiology, Leiden University Medical Center, Leiden, Netherlands, ²InBrain Lab, Department of Physics - University of Sao Paulo, Ribeirao Preto, Brazil</i>
11:36-11:38	L03.24	Contrast enhanced dynamic MRI of the lacrimal drainage system Martin, J. ¹ , Kazempour, Y. ² , Juniata, V. ³ , Lewis, H. ⁴ , Mills, M. ¹ , Rajak, S. ³ , Harris, L. M. ¹ <i>¹Brighton & Sussex University Hospitals NHS Trust, Medical Physics, Brighton, United Kingdom, ²Brighton & Sussex Medical School, Brighton, United Kingdom, ³Brighton & Sussex University Hospitals NHS Trust, Department of Ophthalmology, Brighton, United Kingdom, ⁴Brighton & Sussex University Hospitals NHS Trust, Department of Imaging, Brighton, United Kingdom</i>
11:38-11:40	L03.25	Accelerating CEST by 2D CAIPIRINHA: a simulation study on Z-spectra from 3D whole brain CEST-MRI Nam, K. M. , Hendriks, A., Klomp, D., Wiegers, E., Wijnen, J. <i>University Medical Center Utrecht, Utrecht, Netherlands</i>
11:40-11:42	L03.26	Positive Chemical Exchange Experiments using Steady State RACETE. Mayer, S. , Gutjahr, F. T., Hörner, F., Jakob, P. M. <i>University of Würzburg, Experimental Physics 5, Würzburg, Germany</i>
11:42-11:44	L03.27	Dual-Contrast RACETE for Simultaneous Positive- and Negative-Contrast Chemical Exchange Imaging Gutjahr, F. T. ¹ , Mayer, S. ² , Jakob, P. M. ² <i>¹Universityhospital/University of Würzburg, Comprehensive Heart Failure Center / Experimental Physics 5, Würzburg, Germany, ²University of Würzburg, Experimental Physics 5, Würzburg, Germany</i>
11:44-11:46	L03.28	An Optimized Multislice Sequence for 3D MRI-CEST Imaging Villano, D. ¹ , Romdhane, F. ¹ , Consolino, L. ¹ , Irrera, P. ² , Dastrù, W. ¹ , Longo, D. ³

		<i>¹University of Turin, Molecular Biotechnology and Health Sciences, Turin, Italy, ²University of Campania "Luigi Vanvitelli, Biostructures and Bioimages Institute, CNR, Naples, Italy, ³Italian National Research Council (CNR), Institute of Biostructures and Bioimaging (IBB), Turin, Italy</i>
11:46-11:48	L03.29	In Vivo 3D Chemical Exchange Saturation Transfer for human brain studies at 3T Wu, Y.¹ , Wood, T. ² , A. Hernandez-Tamames, J. ¹ , J. Barker, G. ² , Smits, M. ¹ , A. H. Warnert, E. ¹ <i>¹Erasmus MC - University Medical Centre Rotterdam, Department of Radiology & Nuclear Medicine, Rotterdam, Netherlands, ²King's College London, Centre for Neuroimaging Science, London, United Kingdom</i>
11:48-11:50	L03.30	GagCEST imaging in the upper ankle joint in patients with osteochondral lesions and healthy volunteers Müller-Lutz, A. , Schleich, C., Radke, L., Stabinska, J., Wittsack, H.-J. <i>University Dusseldorf, Medical Faculty, Department of Diagnostic and Interventional Radiology, D-40225 Düsseldorf, Germany</i>
10:50-11:50 Scientific Exhibition	P01	Applications of MRI
	P01.01	Diagnosis of deep vein thrombosis based on a DANTE-prepared gradient echo sequence Mao, H.¹ , Peng, K. ² , Guan, X. ¹ , Zhang, X. ³ , Xie, G.¹ <i>¹Guangzhou Medical University, Department of Biomedical Engineering, Guangzhou, China, ²Nanshan people's hospital, Department of Radiology, Shenzhen, China, ³Siemens healthineer, Shenzhen, China</i>
	P01.02	withdrawn
	P01.03	Lipids composition of visceral fat in overweight and obese patients using ¹H NMR at 9.4T Xavier, A.^{1,2,3} , Zacconi, F. ⁴ , Morelli, C. ¹ , Andia, M. ³ , Uribe, S. ¹ <i>¹Pontificia Universidad Catolica de Chile, Santiago, Chile, ²Pontificia Universidad Catolica de Chile, Millennium Nucleus for Cardiovascular Magnetic Resonance, Santiago, Chile, ³Pontificia Universidad Catolica de Chile, Biomedical Imaging Center, Santiago, Chile, ⁴Pontificia Universidad Catolica de Chile, Faculty of Chemistry, Santiago, Chile</i>
	P01.04	Serial Imaging of Splenomegaly in the Sleeping Sickness Infected Mouse Paterson, S.¹ , Carberry, L. ¹ , Holmes, W. ¹ , Rodgers, J. ² <i>¹University of Glasgow, Institute of Neuroscience and Psychology, Glasgow, United Kingdom, ²University of Glasgow, Glasgow, United Kingdom</i>
	P01.05	Homogeneity of hepatic fat response to dietary interventions Sedivy, P.¹ , Drobny, M. ¹ , Dezortova, M. ¹ , Burian, M. ¹ , Dusilova, T. ² , Kovar, J. ² , Hajek, M. ¹ <i>¹Institute for Clinical and Experimental Medicine, MR unit, Prague, Czech Republic, ²Institute for Clinical and Experimental Medicine, Experimental Medicine Centre, Prague, Czech Republic</i>
	P01.06	Comparison of Fused Diffusion-Weighted Imaging Using Unenhanced MR imaging and Abbreviated Postcontrast-Enhanced MR imaging in Patients with Breast Cancer Nam, K. J. , Choo, K. S., Jeong, Y.-J. <i>Pusan National University Yangsan Hospital, Radiology, Yangsan-si, South Korea</i>
	P01.07	Feasibility Study of Visualizing Tree-Rings of Waterlogged Wood by Deep-Learning Reconstruction Mori, M.¹ , Kuhara, S. ¹ , Kobayashi, K. ¹ , Fukushima, K. ² , Yoshioka, T. ² , Machida, H. ³ , Yokoyama, K. ³ <i>¹Kyorin University, Department of Medical Radiological Technology, Tokyo, Japan, ²Kyorin University Hospital, Tokyo, Japan, ³Kyorin University, School of Medicine, Department of Radiology, Tokyo, Japan</i>
	P01.08	Fat content changes in individuals with type 2 diabetes by a combined intervention of digital education, behavioral modification and a calorie-restricted diet Kupriyanova, Y.¹ , Pesta, D. ¹ , Zaharia, O.-P. ¹ , Van Gemert, T. ¹ , Trenell, M. ² ,

		Szendroedi, J. ¹ , Hwang, J.-H. ¹ , Roden, M. ¹ <i>¹Institute for Clinical Diabetology, German Diabetes Center, Leibniz Institute for Diabetes Research at Heinrich Heine University, Düsseldorf, Germany, ²NIHR Innovation Observatory, Newcastle University, Newcastle Upon Tyne, UK; Changing Health, Newcastle upon Tyne, United Kingdom</i>
	P01.09	Systemic pulse pressure in mild stroke patients is associated with pulsatility of blood vessels in the neck and brain Morgan, A. , Stringer, M., Clancy, U., Thrippleton, M., Marshall, I., Wardlaw, J. <i>University of Edinburgh, Centre for Clinical Brain Sciences, Edinburgh, United Kingdom</i>
	P01.10	A setup for multi-parametric MRI of the rat gastrocnemius at 4.7T during effort-related contraction Loubrie, S. , Trotier, A., Massot, P., Ribot, E., Miraux, S., Bourdel-Marchasson, I. <i>RMSB, Bordeaux, France</i>
	P01.11	Fast Field Cycling-NMR relaxometry: an emerging biomarkers of cancer invasion Leclercq, M. ¹ , Broche, L. ² , Petit, M. ¹ , Berger, F. ¹ , Lahrech, H. ¹ <i>¹INSERM, BrainTech Lab INSERM U1205 Faculté de Médecine et de Pharmacie de Grenoble, Grenoble, France, ²University of Aberdeen Foresterhill Aberdeen, Bio-Medical Physics School of Medicine, Medical Sciences & Nutrition, Aberdeen, United Kingdom</i>
	P01.12	In vivo liver pH in eNOS^{-/-} mice model fed with High Fat Diet may provide clues to understand their susceptible to develop NAFLD Xavier, A. ¹ , Eykyn, T. ² , Plaza, B. ² , Phinikaridou, A. ² , Andia, M. ¹ <i>¹Pontificia Universidad Católica de Chile, Biomedical Imaging Center, Santiago, Chile, ²King's College London, School of biomedical engineering and imaging sciences, London, United Kingdom</i>
	P01.13	withdrawn
	P01.14	Breast dynamic contrast-enhanced MR imaging detected additional nodule: correlation with kinetic features using computer-aided diagnosis and histopathology Nam, S. Y. ¹ , Yoo, E. Y. ¹ , Hong, M. J. ¹ , Park, H. K. ² <i>¹Gil Medical Center, Gachon University College of Medicine, Radiology, Incheon, South Korea, ²Gil Medical Center, Gachon University College of Medicine, Surgery, Incheon, South Korea</i>
	P01.15	withdrawn
	P01.16	The effects of chronic stress in mice bearing B16F10 melanoma cell line and it's role in angiogenesis. Barbieri, A. ¹ , Raiano, N. ² , Luciano, A. ¹ , Rea, D. ¹ , Fusco, R. ² , Raiano, C. ² , Granata, V. ² , Petrillo, A. ² , Arra, C. ³ <i>¹IRCCS Istituto Nazionale Tumori Fondazione G.Pascale, Research, Naples, Italy, ²IRCCS Istituto Nazionale Tumori Fondazione G.Pascale, Radiology, Naples, Italy, ³IRCCS Istituto Nazionale Tumori Fondazione G.Pascale, Research, Naples, Italy</i>
	P01.17	Non-contrast MR-angiography for blood circulation studies in patients with pelvic congestion syndrome. Tatarinova, M. ¹ , Sevostyanova, K. ² , Tulupov, A. ³ , Bogomyakova, O. ³ , Savelov, A. ³ <i>¹Novosibirsk State University; 630090, Novosibirsk, st. Pirogov, 2, Новосибирск, Russian Federation, ²Institute of Chemical Biology and Fundamental Medicine of the Russian Academy of Sciences; 630090, Novosibirsk, Academician Lavrentyev Avenue, 8, Novosibirsk, Russian Federation, ³The Institute International Tomography Center of the Russian Academy of Sciences; 630090, Novosibirsk, st. Institutskaya 3A, Novosibirsk, Russian Federation</i>
	P01.18	A comparative VBM study of longitudinal neuroanatomical changes in AD transgenic mouse models Blüma, M. ¹ , Micotti, E. ² , Tolomeo, D. ² , Forloni, G. ² , Babiloni, C. ¹ <i>¹Sapienza University of Rome, Department of Physiology and Pharmacology "Vittorio Erspamer", Rome, Italy, ²IRCCS Institute for Pharmacological</i>

		<i>Research "Mario Negri", Neuroscience, Milan, Italy</i>
	P01.19	Time-dependent diffusion coefficient in Baker's Yeast studied by single-sided NMR: Attempts to the exploration of structures with a sub-micrometer size Mazur, W., Krzyżak, A. T. <i>AGH University of Science and Technology, Department of Fossil Fuels, Krakow, Poland</i>
	P01.20	Is the hepatic fatty-acid chain length dependent on the hepatic fat content? Burian, M. ¹ , Drobny, M. ¹ , Sedivy, P. ¹ , Dezortova, M. ¹ , Ibrahim, I. ¹ , Hejlova, I. ² , Hajek, M. ¹ , Trunecka, P. ² ¹ <i>IKEM, MR Unit, Prague, Czech Republic</i> , ² <i>IKEM, Dept. of Hepatology, Prague, Czech Republic</i>
	P01.21	DWIBS success in prediction the likelihood of malignancy on suspicious screening x-ray mammograms in Egypt Allam, K. ^{1,2} ¹ <i>AIN SHAMS UNIVERSITY/FACULTY OF MEDICINE, CAIRO, Egypt</i> , ² <i>Ain Shams University/Faculty of Medicine, Cairo, Egypt</i>
	P01.22	withdrawn
12:30-13:30 Room 2 - Van Weelde Zaal		Industry Lunch Symposium
13:50-15:20 Room 1 - Willem Burger Zaal	I15	More Than Just a Scan
	Moderation:	Doneva, M., Hamburg, Germany Koolstra, K., Leiden, Netherlands
13:50-14:20	I15.01	Model-based Multi-Contrast Methods, Fingerprinting and Quantitative Imaging Sbrizzi, A. ^{1,2} ¹ <i>UMC Utrecht, Utrecht, Netherlands</i> , ² <i>UMC Utrecht, Imaging Division, Utrecht, Netherlands</i>
14:20-14:50	I15.02	Multi-Contrast Beyond T1, T2 and PD Buonincontri, G. <i>IRCCS Stella Maris and IMAGO7 Research Centre, Laboratory of Medical Physics and MR, Pisa, Italy</i>
14:50-15:20	I15.03	Interpretation and Application of Multi-Contrast MRI Tisell, A. ^{1,2} ¹ <i>Linköping University, CMIV, Linköping, Sweden</i> , ² <i>Linköping University, Medical radiation physics, Linköping, Sweden</i>
13:50-15:20 Room 2 - Van Weelde Zaal	S12	Molecular & Cellular Imaging
	Moderation:	Herschap, A., Netherlands Schick, F., Germany
13:50-14:00	S12.01	withdrawn
14:00-14:10	S12.02	Sodium MRI reveals therapy induced changes in Multiple Sclerosis lesions Mennecke, A. ¹ , Nagel, A. ² , Wegmann, J. ¹ , Linker, R. ³ , Lee, D.-H. ³ , Kästle, N. ¹ , Huhn, K. ³ , Dörfler, A. ¹ , Engelhorn, T. ¹ ¹ <i>Universitätsklinikum Erlangen, Neuroradiologie, Erlangen, Germany</i> , ² <i>Universitätsklinikum Erlangen, Radiologie, Erlangen, Germany</i> , ³ <i>Universitätsklinikum Erlangen, Neurologie, Erlangen, Germany</i>

14:10-14:20	S12.03	<p>Unusual nanoparticle structure results in fast in vivo clearance of single-resonance 19F perfluorocarbon nanoparticles Staal, X.¹, Temme, S.², Tagit, O.¹, Cortenbach, K.¹, Becker, K.², Veltien, A.³, van Riessen, N. K.¹, Fögel, U.², Srinivas, M.¹ ¹Radboudumc, Tumor Immunology Lab, Nijmegen, Netherlands, ²Heinrich-Heine-University, Department of Molecular Cardiology, Düsseldorf, Germany, ³Radboudumc, Department of Radiology, Nijmegen, Netherlands</p>
14:20-14:30	S12.04	<p>Investigation of Cerebral Lithium Distribution in Patients with Bipolar Disorder: a Lithium-7 Magnetic Resonance Imaging Study at 7 Tesla Stout, J.¹, Hozer, F.², Coste, A.¹, Mauconduit, F.¹, Duchesnay, E.¹, Rabrait-Lerman, C.¹, Houenou, J.², Bellivier, F.³, Boumezbeur, F.¹ ¹Centre d'études de Saclay, NeuroSpin, bâtiment 145, Gif-sur-Yvette, France, ²Hôpital Fernand Widal, Paris, France, ³Université Paris-Descartes, INSERM UMRS-1144, Paris, France</p>
14:30-14:40	S12.05	<p>Multicolor 19F-MRI for in vivo Imaging of immune cells activity in a model of multiple sclerosis Chaabane, L.¹, Chirizzi, C.², Metrangolo, P.³, Baldelli Bombelli, F.³, Comi, G.² ¹Ospedale San Raffaele, Institute of Experimental Neurology (INSPE) and Imaging Center (CIS), Milano, Italy, ²Ospedale San Raffaele, Institute of Experimental Neurology (INSPE), Milano, Italy, ³Politecnico di Milano, Department of Chemistry, Materials, and Chemical Engineering, Milano, Italy</p>
14:40-14:50	S12.06	<p>Chemical Exchange Saturation Transfer imaging with silent three-dimensional zero echo time acquisition: a pilot study of Amide Proton Transfer weighted imaging Dou, W.¹, Wei, X.¹, van Asten, J. J.², Heerschap, A.², Lin, C.-Y. E.¹, Fan, Y.¹, Wu, B.¹ ¹GE Healthcare, MR Research, Beijing, China, ²Radboud University Medical Center, Department of Radiology and Nuclear Medicine, Nijmegen, Netherlands</p>
14:50-15:00	S12.07	withdrawn
15:00-15:10	S12.08	<p>Targeting cell surface receptor CD177 for non-invasive imaging of neutrophil granulocytes by ¹⁹F MRI Bouvain, P.¹, Flocke, V.¹, Kadir, S.¹, Ding, Z.², Krämer, W.³, Schubert, R.³, Schrader, J.², Flögel, U.¹, Temme, S.¹ ¹University of Düsseldorf, Molecular Cardiology / Experimental Cardiovascular Imaging, Düsseldorf, Germany, ²University of Düsseldorf, Molecular Cardiology, Düsseldorf, Germany, ³Albert-Ludwigs-University, Pharmaceutical Technology and Biopharmacy, Freiburg, Germany</p>
15:10-15:20	S12.09	<p>Metallated doped conjugated polymer nanoparticles as bimodal imaging agent for cancer detection: Application in a preclinical glioblastoma model Ibarra, L. E.¹, Arias-Ramos, N.², Guillen Gomez, M. J.², Morales, G.³, Chesta, C.³, Rivarola, V. A.¹, Lopez-Larrubia, P.², Palacios, R.³ ¹Instituto de Biotecnología Ambiental y Salud CONICET-UNRC, Río Cuarto, Argentina, ²Instituto de Investigaciones Biomedicas Alberto Sols CSIC/UAM, Madrid, Spain, ³Instituto de Investigaciones en Tecnologías Energéticas y Materiales Avanzados CONICET-UNRC, Río Cuarto, Argentina</p>
13:50-15:20 Room 3 - Ruys & van Rijckevorsel Zaal	I16	Applications of Machine Learning in Neuroscience
	Moderation:	Poot, D., Netherlands Schnabel, J., London, United Kingdom
13:50-14:20	I16.01	<p>Machine Learning in Diffusion MRI Neher, P. German Cancer Research Center (DKFZ), Heidelberg, Germany, 2. , Heidelberg, Germany</p>
14:20-14:50	I16.02	<p>Analysing Cortical Organisation and its Relation to Cognition and Behaviour Robinson, E.</p>

		London, United Kingdom
14:50-15:20	I16.03	Machine Learning for the Detection of Brain Abnormalities Kuijf, H. <i>UMC Utrecht, Image Sciences Institute, Utrecht, Netherlands</i>
13:50-15:20 Room 4 - Plate & Van der Vorm Zaal	S13	Cardiovascular Applications
	Moderation:	Botnar, R., United Kingdom Strijkers, G., Netherlands
13:50-14:00	S13.01	Coupled electromagnetic and electrophysiological modeling of cardiac stimulation in MRI: Preliminary comparison with dog studies Klein, V.¹ , Davids, M. ¹ , Schad, L. R. ¹ , Wald, L. L. ² , Guérin, B. ² <i>¹Heidelberg University, Computer Assisted Clinical Medicine, Mannheim, Germany, ²Massachusetts General Hospital, A. A. Martinos Center for Biomedical Imaging, Department of Radiology, Charlestown, MA, United States</i>
14:00-14:10	S13.02	In vivo visualization of early alterations in the extracellular matrix after myocardial infarction by magnetic resonance chemical exchange saturation transfer Flögel, U.¹ , Jacoby, C. ¹ , Müller, J. ² , Petz, A. ² , Ding, Z. ¹ , Grandoch, M. ² , Fischer, J. ² , Schrader, J. ¹ <i>¹Heinrich Heine University, Experimental Cardiovascular Imaging, Düsseldorf, Germany, ²Heinrich Heine University, Pharmacology, Düsseldorf, Germany</i>
14:10-14:20	S13.03	Investigation of carotid atherosclerotic plaque microstructure using diffusion tensor imaging Tornifoglio, B.¹ , Stone, A. J. ¹ , Shahid, S. ² , Iacob, L. ³ , Clarke, J. ³ , O'Callaghan, A. ³ , O'Neill, S. ³ , Kerskens, C. ⁴ , Lally, C. ¹ <i>¹Trinity College Dublin, Trinity Centre for Bioengineering and Department of Mechanical and Manufacturing Engineering, Dublin, Ireland, ²Emory University, School of Medicine, Department of Neurology, Atlanta, United States, ³St. James Hospital, Vascular and Endovascular Surgery, Dublin, Ireland, ⁴Trinity College Dublin, Trinity College Institute of Neuroscience, Dublin, Ireland</i>
14:20-14:30	S13.04	Identification of USPIO-uptake in calcified Atherosclerotic Plaques Ruetten, P. P. R.¹ , Cluroe, A. ² , Usman, A. ¹ , Gillard, J. H. ¹ , Graves, M. J. ¹ <i>¹University of Cambridge, Radiology, Cambridge, United Kingdom, ²Cambridge University Hospital, Pathology, Cambridge, United Kingdom</i>
14:30-14:40	S13.05	Pharmacokinetic analysis of black-blood DCE-MRI of atherosclerotic plaques Schoormans, J.¹ , Calcagno, C. ² , Strijkers, G. ¹ , Zheng, K. H. ³ , Nederveen, A. ⁴ , Coolen, B. ¹ <i>¹Amsterdam UMC, Biomedical Engineering and Physics, Amsterdam, Netherlands, ²Icahn School of Medicine at Mount Sinai, Translational and Molecular Imaging Institute, New York, NY, United States, ³Amsterdam UMC, Vascular Medicine, Amsterdam, Netherlands, ⁴Amsterdam UMC, Radiology and Nuclear Medicine, Amsterdam, Netherlands</i>
14:40-14:50	S13.06	3D MRI velocity measurements in coronary stent designs for the validation of numerical analyses John, K.¹ , Bruscheckski, M. ¹ , Quirin, L. ¹ , Oldenburg, J. ² , Borowski, F. ² , Schmitz, K.-P. ² , Stiehm, M. ² , Grundmann, S. ¹ <i>¹University of Rostock, Institute of Fluid Mechanics, Rostock, Germany, ²Rostock University Medical Center, Institute for Biomedical Engineering, Rostock, Germany</i>
14:50-15:00	S13.07	Phase-specific aorta segmentation based on 4D flow MRI: Inter-examination reproducibility in healthy volunteers. Juffermans, J.¹ , Westenberg, J. ¹ , van den Boogaard, P. ¹ , van der Palen, R. ² , Roest, A. ² , van Assen, H. ¹ , Lamb, H. ¹ <i>¹Leiden University Medical Center, Radiology, Leiden, Netherlands, ²Leiden University Medical Center, Pediatric Cardiology, Leiden, Netherlands</i>
15:00-15:10	S13.08	4D MR velocimetry and numerical simulations for studying swirling flows in blood vessel models

		<p>Khe, A.¹, Vanina, V.², Cherevko, A.¹, Parshin, D.¹, Tulupov, A.³, Chupakhin, A.¹ ¹Lavrentyev Institute of Hydrodynamics, Novosibirsk, Russian Federation, ²Novosibirsk State University, Novosibirsk, Russian Federation, ³International Tomography Center, Novosibirsk, Russian Federation</p>
15:10-15:20	S13.09	<p>¹⁹F-MRI of inflammation with PFCE-loaded PLGA nanoparticles – quantification and intracellular localization Daal, M. R.¹, Staal, X. H.², Coolen, B. F.¹, Nederveen, A. J.³, Srinivas, M.², van der Wel, N. N.⁴, Wüst, R. C.¹, Strijkers, G. J.¹ ¹Amsterdam UMC, University of Amsterdam, Biomedical Engineering and Physics, Amsterdam, Netherlands, ²RIMLS, Tumor Immunology Lab, Nijmegen, Netherlands, ³Amsterdam UMC, University of Amsterdam, Radiology and Nuclear Medicine, Amsterdam, Netherlands, ⁴Amsterdam UMC, University of Amsterdam, Medical Biology, Amsterdam, Netherlands</p>
13:50-14:40 The Stage	L04	Brain and Spinal Cord Imaging
	Moderation:	Achten, R., Ghent, Belgium Ercan, E., Leiden, Netherlands
13:50-13:52	L04.01	<p>T2 relaxation and volumetry of the brain: age-related changes in patients with hypertension Sabisz, A.¹, Naumczyk, P.², Marcinkowska, A.¹, Graff, B.³, Gasecki, D.⁴, Jankowska, A.¹, Jodzio, K.⁵, Szurowska, E.¹, Narkiewicz, K.³ ¹Medical University of Gdańsk, 2nd Department of Radiology, Gdańsk, Poland, ²University of Gdańsk, Institute of Psychology, Gdansk, Poland, ³Medical University of Gdańsk, Department of Hypertension and Diabetology, Gdańsk, Poland, ⁴Medical University of Gdańsk, Department of Neurology of Adults, Gdańsk, Poland, ⁵University of Gdańsk, Institute of Psychology, Gdańsk, Poland</p>
13:52-13:54	L04.02	<p>Simultaneous glucoCEST and fiber photometry of glucose in the healthy mouse brain Eleftheriou, A.¹, Wyss, M. T.¹, Warnock, G.¹, Vinogradov, S. A.², Weber, B.¹ ¹University of Zurich, Institute of Pharmacology and Toxicology, Zurich, Switzerland, ²University of Pennsylvania, Perelman School of Medicine & Department of Chemistry, School of Arts & Sciences, Department of Biochemistry & Biophysics, Philadelphia, United States</p>
13:54-13:56	L04.03	<p>MRI Features of Hemo- and Cerebrospinal fluid dynamics in Patients with Idiopathic Intracranial Hypertension and Idiopathic Normal Pressure Hydrocephalus Kolpakov, K.¹, Bogomyakova, O.², Amelin, M.³, Rezakova, M.⁴, Tulupov, A.² ¹Novosibirsk State University, Novosibirsk, Russian Federation, ²Laboratory of Medical Diagnostic, International Tomography Center, Siberian Branch of Russian Academy of Sciences, Novosibirsk, Russian Federation, ³FSBI, Novosibirsk, Russian Federation, ⁴State Scientific-Research Institute of Physiology and Basic Medicine, Novosibirsk, Russian Federation</p>
13:56-13:58	L04.04	<p>Delayed 24 h post-contrast retention of gadolinium in brain tumors as sign of malignancy, cell lysis and enhanced intratumoral level of free metals Ussov, W.-Y.¹, Belyanin, M. L.², Trofimova, T. N.³, Chirikov, A. S.⁴, Filimonov, V. D.², Savello, N. V.⁵, Shimanovsky, N. L.⁶ ¹Tomsk Medical Research Center/ Institute of Cardiology, MRI Res. Lab, Tomsk, Russian Federation, ²National Research Tomsk Polytechnic University, Biotechnology and Organic Chemistry, Tomsk, Russian Federation, ³I.P.Pavlov Medical University, Saint-Petersburg, Russian Federation, ⁴Tomsk Regional Clinical Hospital, Neurosurgery, Tomsk, Russian Federation, ⁵R-Pharm Co., Saint - Petersburg, Russian Federation, ⁶N.I.Pirogov Moscow Medical Research University, Molecular Pharmacology, Moscow, Russian Federation</p>
13:58-14:00	L04.05	<p>Synthetic Diffusion-weighted Imaging (MAGIC DWI) in Stroke Imaging: Study of 52 cases Vadapalli, R.¹, Annamraju, R. b.², Vadapalli, a. s.³ ¹Vijaya Diagnostics, Radiology, Hyderabad, India, ²GE Healthcare, Digital innovations in affordable care, Bangalore, India, ³Medway Maritime Hospital Windmill Road Gillingham Kent, Orthopaedic surgery, Hyderabad 500020, India</p>

14:00-14:02	L04.06	<p>Microstructural disorders in thalamus in the acute phase of pediatric mild traumatic brain injury. DTI study</p> <p>Vasiukova, O.¹, Manzhurtsev, A.², Menshchikov, P.³, Ublinskiy, M.⁴, Akhadov, T.⁴, Semenova, N.², Melnikov, I.⁴, Bozhko, O.⁴</p> <p>¹National Research Nuclear University MEPhI, Moscow, Russian Federation, ²Emanuel Institute of Biochemical Physics of the Russian Academy of Sciences, Moscow, Russian Federation, ³Semenov Institute of Chemical Physics of the Russian Academy of Sciences, Moscow, Russian Federation, ⁴Clinical and Research Institute of Emergency Pediatric Surgery and Traumatology, Moscow, Russian Federation</p>
14:02-14:04	L04.07	<p>Assessment of microcirculatory changes in patients with multiple sclerosis by perfusion MRI</p> <p>Vasilkiv, L., Tulupov, A., Bogomyakova, O.</p> <p>International Tomography Center Siberian Branch of Russian Academy of Sciences, Novosibirsk, Russian Federation</p>
14:04-14:06	L04.08	<p>Resting state fMRI, voxel-based morphometry and neuropsychological examination in patients with anorexia nervosa.</p> <p>Salomatina, T.¹, Ananyeva, N.¹, Akhmerova, L.¹, Andreev, E.¹, Pichikov, A.², Popov, Y.², Wasserman, M.³, Popova, A.³</p> <p>¹Federal State Budgetary Institution "V.M. Bekhterev National Medical Research Center for Psychiatry and Neurology" of the Ministry of Health of the Russian Federation, Department of Neurophysiology, Neurovisual and Clinical and Laboratory Studies, Saint-Petersburg, Russian Federation, ²Federal State Budgetary Institution "V.M. Bekhterev National Medical Research Center for Psychiatry and Neurology" of the Ministry of Health of the Russian Federation, Department of adolescent psychiatry, Saint-Petersburg, Russian Federation, ³Federal State budgetary Educational Institution of Higher Education "St. Petersburg State Pediatric Medical University", Saint-Petersburg, Russian Federation</p>
14:06-14:08	L04.09	<p>Computation of the texture features in Glioblastoma grade 4 and Oligodendroglioma grade 2 based on T1 weighted post contrast images</p> <p>Grzywińska, M.¹, Sabisz, A.², Borof, N.³, Szurowska, E.²</p> <p>¹Medical University of Gdansk, Department of Human Physiology, Gdansk, Poland, ²Medical University of Gdansk, 2nd Department of radiology, Gdansk, Poland, ³The Provincial Integrated Hospital, Elblag, Poland</p>
14:08-14:10	L04.10	<p>Motor Mapping for Pre-surgical Planning Using Seed-based Resting-State fMRI Approach</p> <p>Malekian, V., Nasiraei Moghaddam, A.</p> <p>Institute for Research in Fundamental Sciences, School of Cognitive Sciences, Tehran, Iran, Islamic Republic of</p>
14:10-14:12	L04.11	<p>Multiple Quantum Filtered Sodium MRI of Multiple Sclerosis at 7T</p> <p>Shymanskaya, A.¹, Worthoff, W. A.², Cleary, J. O.³, Blunck, Y.⁴, Glarin, R. K.⁴, Kolbe, S.⁵, Johnston, L.⁴, Shah, N. J.⁶</p> <p>¹Forschungszentrum Jülich GmbH, Institute of Neuroscience and Medicine – 11, Jülich, Germany, ²Forschungszentrum Jülich GmbH, Institute of Neuroscience and Medicine – 4, Jülich, Germany, ³Guy's and St. Thomas' NHS Foundation Trust, Department of Radiology, London, United Kingdom, ⁴Melbourne Brain Centre Imaging Unit (MBCIU), University of Melbourne, Department of Medicine and Radiology, Melbourne, Australia, ⁵Monash University, Department of Neuroscience, Melbourne, Australia, ⁶Forschungszentrum Jülich, Institute of Neuroscience and Medicine – 4, Jülich, Germany</p>
14:12-14:14	L04.12	<p>Structural connectivity assessment in Diabetes Mellitus type 2: a DKI study</p> <p>Loução, R., Oros-Peusquens, A.-M., Shah, N. J.</p> <p>Forschungszentrum Jülich, Institute of Neurosciences and Medicine 4, Jülich, Germany</p>
14:14-14:16	L04.13	<p>Body mass index and longitudinal change of brain volume, disability and cognition in relapsing-remitting multiple sclerosis</p> <p>Meijboom, R.¹, Valdés Hernández, M.¹, White, N.¹, Wiseman, S.¹, York, E.¹, Colville, S.², Chandran, S.², Connick, P.², Waldman, A.¹</p> <p>¹University of Edinburgh, Edinburgh Imaging, Centre for Clinical Brain Sciences, Edinburgh, United Kingdom, ²University of Edinburgh, Anne Rowling Regenerative Neurology Clinic, Centre for Clinical Brain Sciences, Edinburgh, United Kingdom</p>

14:16-14:18	L04.14	<p>Hypersense Acceleration Mantras: Clinical applications what every resident must know</p> <p>Vadapalli, R.¹, Vadapalli, a. s.², Annamraju, R. b.³, Mulukutla, R. d.⁴ ¹Vijaya Diagnostics, Radiology, Hyderabad, India, ²Medway Maritime Hospital Windmill Road Gillingham Kent, Orthopaedic surgery, Hyderabad 500020, India, ³GE Healthcare, Digital innovations in affordable care, Bangalore, India, ⁴Udai Omni Hospitals, Spine surgery, Hyderabad, India</p>
14:18-14:20	L04.15	<p>Some MR-Elastography pitfalls at low and high frequency in the human brain</p> <p>Andoh, F.¹, Tardieu, M.¹, Pellot-Barakat, C.², Maitre, X.¹ ¹IR4M, CNRS, Univ. Paris-Sud, Université Paris-Saclay, Orsay, France, ²Inserm, CEA, CNRS, Univ. Paris-Sud, Université Paris-Saclay, IMIV, Orsay, France</p>
14:20-14:22	L04.16	<p>Cerebrospinal fluid and blood flow disturbances in the development of cognitive impairment in cerebral small vessel disease</p> <p>Dobrynina, L.¹, Akhmetzyanov, B.², Gadzhieva, Z.¹, Kremneva, E.³, Kalashnikova, L.¹, Krotenkova, M.³ ¹Research center of neurology, Neurology, Moscow, Russian Federation, ²Medical and Rehabilitation center, Radiology, Moscow, Russian Federation, ³Research center of neurology, Neuroradiology, Moscow, Russian Federation</p>
14:22-14:24	L04.17	<p>Optimization of scanning conditions to detect trace concentrations of gadolinium with a heavy T2 FLAIR sequence</p> <p>Sato, Y.¹, Hayashi, N.², Maruyama, T.³, Ujita, K.¹, Suto, T.¹, Watanabe, H.², Ogura, A.², Tsushima, Y.⁴ ¹Gunma University Hospital, Department of Radiology, Maebashi, Japan, ²Gunma Prefectural College of Health Sciences, Department of Radiological Technology, Maebashi, Japan, ³Shinshu University Hospital, Department of Radiology, Matsumoto, Japan, ⁴Gunma University Graduate School of Medicine, Department of Diagnostic Radiology and Nuclear Medicine, Maebashi, Japan</p>
14:24-14:26	L04.18	<p>Brain activation evaluation and mental health correlations in patients with schizophrenia underwent a stem cells therapy</p> <p>Ustyuzhanin, D.¹, Morozova, Y.¹, Shariya, M.¹, Smulevich, A.², Smirnov, V.¹, Ternovoy, S.³ ¹National Medical Research Center of Cardiology, Moscow, Russian Federation, ²Mental Health Research Center, Moscow, Russian Federation, ³Sechenov First Moscow State Medical University, Moscow, Russian Federation</p>
14:26-14:28	L04.19	<p>Vascular reactivity measured with high temporal resolution fMRI in hereditary and sporadic CAA</p> <p>van Harten, T.¹, Voigt, S.², Koemans, E.², van Rooden, S.¹, van Buchem, M.¹, Zwanenburg, J.³, Walderveen, M.¹, Wermer, M.², van Osch, M.¹ ¹Leiden University Medical Center, Radiology, Leiden, Netherlands, ²Leiden University Medical Center, Neurology, Leiden, Netherlands, ³University Medical Center Utrecht, Radiology, Utrecht, Netherlands</p>
14:28-14:30	L04.20	<p>BOLD-fMRI cerebrovascular reactivity and resting-state fluctuations in Small Vessel Disease</p> <p>Pinto, J.¹, Moreira, J.¹, Charrua, T.¹, Fouto, A.¹, Alves, L.², Calado, S.², Vilela, P.³, Viana Baptista, M.², Figueiredo, P.¹ ¹ISR-Lisboa/LARSyS and Department of Bioengineering, Instituto Superior Técnico – Universidade de Lisboa, Lisbon, Portugal, ²Neurology Department, Hospital Egas Moniz, Centro Hospitalar de Lisboa Ocidental; CEDOC - Nova Medical School, New University of Lisbon, Lisbon, Portugal, ³Imaging Department, Hospital da Luz, Lisbon, Portugal</p>
14:30-14:32	L04.21	<p>Post-Acquisition Correction of Macromolecules using a Relaxation- and Sequence-dependent Simulation Model</p> <p>Wright, A.¹, Murali Manohar, S.¹, Henning, A.² ¹Max Planck Institute for Biological Cybernetics, Magnetic Resonance Zentrum, Tuebingen, Germany, ²University of Texas Southwestern, Dallas, United States</p>
14:32-14:34	L04.22	<p>Fetal MRI using AIR technology at 3T, preliminary report</p> <p>Svensson, P.-A.¹, Lagerstrand, K.², Boström, H.¹, Hebelka, H.³ ¹The Queen Silvia Children's Hospital, Sahlgrenska University Hospital, Dep. of Pediatric Radiology, Gothenburg, Sweden, ²Inst. of Clinical Sciences, Gothenburg University, Dep. of Radiology, Sahlgrenska University Hospital,</p>

		Gothenburg, Sweden, ³ Inst. of Clinical Science, Gothenburg University, Dep. of Pediatric Radiology, Sahlgrenska University Hospital, Gothenburg, Sweden
14:34-14:36	L04.23	Associations between high intensity zones, Modic and endplate changes in low back pain patients Lagerstrand, K. ¹ , Brisby, H. ² , Hebelka, H. ³ ¹ Inst. of Clinical Sciences, Gothenburg University and Dep. of Medical Physics and Biomedical Engineering, Sahlgrenska University Hospital, Gothenburg, Sweden, ² Inst. of Clinical Sciences, Gothenburg University and Dep. of Orthopedics, Sahlgrenska University Hospital, Gothenburg, Sweden, ³ Inst. of Clinical Sciences, Gothenburg University and Dep. of Radiology, Sahlgrenska University Hospital, Gothenburg, Sweden
13:50-14:40 Scientific Exhibition	C01	Clinical Review Posters Meet the Authors
	C01.01	The effect of automatic normative quantification of brain tissue volume on confidence in MRI based diagnosis of dementia: a pilot study Steketee, R. ¹ , de Visser, K. ¹ , Pappa, J. ² , Niessen, W. ³ , Smits, M. ¹ , Vernooij, M. ⁴ ¹ Erasmus University Medical Center, Radiology & Nuclear Medicine, Rotterdam, Netherlands, ² Erasmus University Medical Center, Neurology, Rotterdam, Netherlands, ³ Erasmus University Medical Center, Biomedical Imaging Group Rotterdam - Departments of Medical Informatics and Radiology & Nuclear Medicine, Rotterdam, Netherlands, ⁴ Erasmus University Medical Center, Radiology & Nuclear Medicine and Epidemiology, Rotterdam, Netherlands
	C01.02	withdrawn
	C01.03	Analysis of RF Induced Heating of Orthopedic Implant Embedded in Bone Material Ihsan, Z. ¹ , Schaeffers, G. ² ¹ MR:comp GmbH, Gelsenkirchen, Germany, ² MRI-STaR-Magnetic Resonance Institute for Safety, Technology and Research GmbH, Gelsenkirchen, Germany
	C01.04	withdrawn
	C01.05	Identification of the somatosensory system using diffusion tensor tractography Lee, W. ¹ , Hartono, S. ² , Lo, Y. L. ² , Chan, L. L. ¹ ¹ Singapore General Hospital, Department of Diagnostic Radiology, Singapore General Hospital, Singapore, Singapore, Singapore, ² Singapore General Hospital, Department of Neurology, National Neuroscience Institute - Singapore General Hospital Campus, Singapore, Singapore, Singapore
	C01.06	Improving the Accuracy and Reliability of Callosal Angle Measurement in the Diagnosis of Normal Pressure Hydrocephalus Lee, W. ¹ , Lee, A. ¹ , Chen, R. ¹ , Keong, N. ² , Chan, L. L. ¹ ¹ Singapore General Hospital, Department of Diagnostic Radiology, Singapore General Hospital, Singapore, Singapore, Singapore, ² Singapore General Hospital, Department of Neurosurgery, National Neuroscience Institute, Singapore, Singapore, Singapore
	C01.07	withdrawn
	C01.08	Arterial spin labelling: Basics and current emerging clinical applications what every resident must know Vadapalli, R. ¹ , Sattaluri, S. J. ² , Vadapalli, a. s. ³ , Annamraju, R. b. ⁴ ¹ Vijaya Diagnostics, Radiology, Hyderabad, India, ² KIMS, Neurology, Hyderabad, India, ³ Medway Maritime Hospital Windmill Road Gillingham Kent, Orthopaedic surgery, Hyderabad 500020, India, ⁴ GE Healthcare, Digital innovations in affordable care, Bangalore, India
	C01.09	withdrawn
	C01.10	withdrawn

	C01.11	Myelinisation in young children who stutter: a DTI-study of the speech and language network Deman, H., Vandecruys, F., Baerts, N., Timmermans, S., Sunaert, S., Verly, M. <i>KU Leuven, Department of Neurosciences, Leuven, Belgium</i>
	C01.12	withdrawn
	C01.13	Modeling hydrocephalus using MRI methods and the poroelasticity theory Yankova, G. ¹ , Cherevko, A. ¹ , Khe, A. ¹ , Bogomyakova, O. ² , Tulupov, A. ² ¹ <i>Lavrentyev Institute of Hydrodynamics, Novosibirsk, Russian Federation,</i> ² <i>International Tomography Center, Novosibirsk, Russian Federation</i>
15:40-16:40 Room 1 - Willem Burger Zaal	I17	Diffusion Methods for Gadolinium-free Imaging
	Moderation:	Ståhlberg, F., Lund, Sweden Kleban, E., Cardiff, United Kingdom
15:40-16:10	I17.01	Basic Principles and Methods of Microstructural Diffusion as an Alternative to Gadolinium Alberich-Bayarri, A. <i>La Fe Polytechnics and University Hospital, Biomedical Imaging Research Group, Valencia, Spain</i>
16:10-16:20	I17.02	Whole Body Diffusion Imaging in the Clinic Erturk, M. <i>Istanbul, Turkey</i>
15:40-17:10 Room 2 - Van Weelde Zaal	S14	Efficient MR Imaging
	Moderation:	Zaitsev, M., Germany Roos, T., Amsterdam, Netherlands
15:40-15:50	S14.01	3D Free-breathing Cardiac Magnetic Resonance Fingerprinting Cruz, G. ¹ , Jaubert, O. ¹ , Bustin, A. ¹ , Qi, H. ¹ , Schneider, T. ² , Botnar, R. M. ³ , Prieto, C. ³ ¹ <i>King's College London, London, United Kingdom,</i> ² <i>Philips Healthcare, Guildford, United Kingdom,</i> ³ <i>King's College London, London, United States</i>
15:50-16:00	S14.02	Real-Time Sequence Control for Prospective Motion Correction in a Dynamic, Platform-Independent MRI Framework Hoinkiss, D. C., Cordes, C., Konstandin, S., Huber, J., Wilke, R., Guenther, M. <i>Fraunhofer MEVIS, MR Physics, Bremen, Germany</i>
16:00-16:10	S14.03	Efficient cardiac T₁ mapping using cardiac motion correction at 1.5 T Lukanek, S. ¹ , Schulz-Menger, J. ² , Schäffter, T. ¹ , Kolbitsch, C. ¹ , Becker, K. M. ¹ ¹ <i>Physikalisch-Technische Bundesanstalt (PTB), Braunschweig and Berlin, Germany,</i> ² <i>Working Group on Cardiovascular Magnetic Resonance, Charité, Experimental and Clinical Research Center (ECRC) and Helios Klinikum Berlin Buch, Berlin, Germany</i>
16:10-16:20	S14.04	3D Cartesian Whole-heart CINE MRI Exploiting Patch-based Spatial and Temporal Redundancies Kuestner, T. ¹ , Bustin, A. ¹ , Neji, R. ² , Botnar, R. ¹ , Prieto, C. ¹ ¹ <i>King's College London, London, United Kingdom,</i> ² <i>MR Research Collaborations, Siemens Healthcare Limited, Frimley, United Kingdom</i>
16:20-16:30	S14.05	Super-resolution T₁ mapping with integrated motion compensation in a joint Maximum Likelihood framework Beirinckx, Q. ¹ , Jeurissen, B. ¹ , Verhoye, M. ² , den Dekker, A. J. ¹ , Sijbers, J. ¹ ¹ <i>University of Antwerp, Department of Physics, imec - Vision Lab, Antwerp, Belgium,</i> ² <i>University of Antwerp, Department of Biomedical Sciences, Bio-Imaging Lab, Antwerp, Belgium</i>
16:30-16:40	S14.06	Multi-contrast Patch Based Super-Resolution for Diffusion Weighted MRI

		of Breast Fenioux, R. ¹ , Delbany, M. ¹ , Felblinger, J. ² , Vuissoz, P.-A. ¹ , Odille, F. ² ¹ IADI, INSERM U1254 and Université de Lorraine, Nancy, France, ² IADI and CIC-IT, INSERM, CHRU de Nancy and Université de Lorraine, Nancy, France
16:40-16:50	S14.07	Optimal design of a blended diffusion/relaxometry experiment Buikema, A. E. , den Dekker, A. J., Sijbers, J. imec-Vision Lab, Department of Physics, University of Antwerp, Antwerp, Belgium
16:50-17:00	S14.08	Flow Effects in Echo Planar 4D Flow MRI Dillinger, H. , Walheim, J., Kozerke, S. ETH Zurich, D-ITET, Zurich, Switzerland
17:00-17:10	S14.09	T-Hex EPI: 3D Echo-planar imaging on a tilted hexagonal grid Engel, M. , Kasper, L., Wilm, B., Dietrich, B., Vionnet, L., Pruessmann, K. ETH Zürich, Institute for Biomedical Engineering, Zurich, Switzerland
15:40-17:10 Room 3 - Ruys & van Rijckevorsel Zaal	S15	Hardware & Safety
	Moderation:	Felblinger, J., France Noseworthy, M., Canada
15:40-15:50	S15.01	Decreased native renal T₁ one week after gadobutrol administration in healthy volunteers de Boer, A. ¹ , Harteveld, A. ¹ , Blankestijn, P. ² , Bos, C. ¹ , Froeling, M. ¹ , Joles, J. ² , Verhaar, M. ² , Leiner, T. ¹ , Hoogduin, J. ¹ ¹ University Medical Center Utrecht, Utrecht University, Radiology, Utrecht, Netherlands, ² University Medical Center Utrecht, Utrecht University, Nephrology and hypertension, Utrecht, Netherlands
15:50-16:00	S15.02	MRI at 2.15 MHz in a Low-Cost Halbach-Based Scanner for Pediatric Neuroimaging O'Reilly, T. , Teeuwisse, W., Koolstra, K., Webb, A. Leiden University Medical Center, C.J. Gorter Center for High Field MRI, Leiden, Netherlands
16:00-16:10	S15.03	Ultra-fast and intense magnetic fields for MRI and Peripheral Nervous System stimulation studies. Grau-Ruiz, D. ¹ , Angelidakis, L. ² , Pallas, E. ² , Rigla, J. P. ¹ , Alonso, J. ² , Ríos, A. ¹ , Benlloch, J. M. ² ¹ Tesoro Imaging SL, Valencia, Spain, ² Spanish National Research Council (CSIC), Inst. for Instrum. for Molecular Imaging (i3M), Valencia, Spain
16:10-16:20	S15.04	2D Echo-Planar Imaging with an Ultrasonic Resonant z-Gradient Metere, R. ¹ , Schulz, J. ¹ , Klomp, D. ² , Marques, J. P. ¹ , Norris, D. G. ¹ ¹ Radboud University, Donders Institute, Nijmegen, Netherlands, ² University Medical Center Utrecht, Imaging and Cancer Division, Utrecht, Netherlands
16:20-16:30	S15.05	Novel passive decoupling approach for high resolution HTS RF coils based on the nonlinear electrical properties of superconductors Saniour, I. ¹ , Authelet, G. ² , Baudouy, B. ² , Dubuisson, R.-M. ¹ , J. van der Beek, C. ³ , Darrasse, L. ¹ , Briatico, J. ⁴ , Ginefri, J.-C. ¹ , Poirier-Quinot, M. ¹ ¹ IR4M, UMR8081, Université Paris-Sud/CNRS, Université Paris-Saclay, Orsay, France, ² Irfu, CEA Paris-Saclay, Université Paris-Saclay, Gif-sur-Yvette, France, ³ Centre de Nanosciences et de Nanotechnologies, CNRS, Université Paris-Saclay, Palaiseau, France, ⁴ Unité Mixte de Physique, CNRS, Thales, Université Paris-Sud, Université Paris-Saclay, Palaiseau, France
16:30-16:40	S15.06	Design, manufacture, and evaluation of a novel T₁ phantom for hand and wrist imaging McHugh, D. ¹ , Lamb, R. ² , Trowell, L. ² , Walker, A. ² , Hall, M. ³ , Parker, G. ¹ ¹ The University of Manchester, Quantitative Biomedical Imaging Laboratory, Manchester, United Kingdom, ² Leeds Test Objects Ltd., Boroughbridge, United Kingdom, ³ National Physical Laboratory, Teddington, United Kingdom
16:40-16:50	S15.07	A five channel transceive array with shielded coaxial loop coils for laryngeal imaging at 7T Zivkovic, I. , Ruytenberg, T., Webb, A.

		<i>Leiden University Medical Center, Radiology Department, Leiden, Netherlands</i>
16:50-17:00	S15.08	The influence of probes positioning for measuring RF- induced 3D-power deposition on a lead with E-field and temperature probes Ketelsen, F. ¹ , Scholz, S. ¹ , Görtz, W. ¹ , Kreutner, J. ² , Kröninger, K. ³ , Schaefers, G. ¹ ¹ MR:comp GmbH, Gelsenkirchen, Germany, ² MRI-STaR, Gelsenkirchen, Germany, ³ Technical University Dortmund, Dortmund, Germany
17:00-17:10	S15.09	Global head SAR assessment of MRI-induced temperature change Blackwell, J. ¹ , Oluniran, G. ¹ , Krasny, M. ¹ , Tuohy, B. ² , Colgan, N. ¹ ¹ National University of Ireland Galway, Physics, Galway, Ireland, ² Galway University Hospital, Galway, Ireland
15:40-17:10 Room 4 - Plate & Van der Vorm Zaal	S16	Animal Models: Brain & Others
	Moderation:	Boumezbeur, F., France Lahrech, H., Grenoble, France
15:40-15:50	S16.01	withdrawn
15:50-16:00	S16.02	Analysis of resting state connectivity with graph theory reveals network changes in a rat model of absence epilepsy Wachsmuth, L. ¹ , Kemper, K. ¹ , Albers, F. ¹ , Lambers, H. ¹ , Datunashvili, M. ² , Lüttjohann, A. ² , Kreitz, S. ³ , Budde, T. ² , Faber, C. ¹ ¹ University of Muenster, Clinical Radiology TRIC, Muenster, Germany, ² University of Muenster, Physiology I, Muenster, Germany, ³ University of Erlangen, Erlangen, Germany
16:00-16:10	S16.03	Brain state and CSF production define glymphatic washout in the rat brain Segeroth, M. ¹ , Wachsmuth, L. ¹ , Heß, A. ² , Albers, F. ¹ , Faber, C. ¹ ¹ WWU Muenster, Translational Research Imaging Center, Muenster, Germany, ² BioCom GbR, Uttenreuth, Germany
16:10-16:20	S16.04	Brain activity in an animal model of paclitaxel- induced neuropathic pain Costa-Pereira, J. T. ¹ , Oliveira, R. ¹ , Guadilla, I. ² , Guillén, M. J. ² , Tavares, I. ¹ , López-Larrubia, P. ² ¹ Faculty of Medicine of University of Porto, Department of Biomedicine - Experimental Biology unit, Porto, Portugal, ² CSIC-UAM, Instituto de Investigaciones Biomédicas "Alberto Sols", Madrid, Spain
16:20-16:30	S16.05	Graph-theoretical network analysis in an absence epilepsy rat model using rs-fMRI data Kemper, K. ¹ , Wachsmuth, L. ¹ , Albers, F. ¹ , Lambers, H. ¹ , Thomas, D. ¹ , Datunashvili, M. ² , Lüttjohann, A. ² , Budde, T. ² , Faber, C. ¹ ¹ Westfälische Wilhelms-Universität Münster, Institute for Clinical Radiology Translational Research Imaging Center (TRIC), Münster, Germany, ² Westfälische Wilhelms-Universität Münster, Department of physiology I, Münster, Germany
16:30-16:40	S16.06	Oscillatory pattern of response in MRSI-based Glioblastoma therapy follow-up: an immune system biomarker? Villamañan, L. ¹ , Calero, P. ¹ , Wu, S. ¹ , Arias-Ramos, N. ¹ , Ortega-Martorell, S. ² , Pumarola, M. ³ , Julià-Sapé, M. M. ⁴ , Arús, C. ¹ , Candiota, A. P. ⁴ ¹ Department of Biochemistry and Molecular Biology, Biosciences Faculty, Universitat Autònoma de Barcelona, Cerdanyola del Vallès, Spain, ² Department of Applied Mathematics, Liverpool John Moore University, Liverpool, United Kingdom, ³ Department of Animal Medicine and Animal Surgery, Veterinary Faculty, Universitat Autònoma de Barcelona, Cerdanyola del Vallès, Spain, ⁴ Centro de Investigación Biomédica en Red - Department of Biochemistry and Molecular Biology, Biosciences Faculty, Universitat Autònoma de Barcelona, Cerdanyola del Vallès, Spain
16:40-16:50	S16.07	Characterization of long-term cerebral alterations in a mouse model of in utero high dose irradiation using anatomical and diffusion MRI Mouton, L. ^{1,2} , Etienne, O. ³ , Barrière, D. A. ⁴ , Pérès, E. ⁵ , Boumezbeur, F. ⁴ , Boussin, F. ⁶ , Le Bihan, D. ⁴ ¹ CEA/NeuroSpin, Gif sur Yvette, France, ² CEA/NeuroSpin/Frédéric Joliot

		<i>Institutes, Gif sur Yvette, France, ³Stem Cells and Radiation, CEA, INSERM, Université Paris Sud, Université de Paris, LRP, UMR Genetic Stability, Fontenay-aux-Roses, France, ⁴CEA/NeuroSpin/Frédéric Joliot Institute, Gif sur Yvette, France, ⁵Normandie Univ, UNICAEN, CEA, CNRS, ISTCT/CERVOxy group, UMR6030 GIP CYCERON, Cean, France, ⁶Stem Cells and Radiation, CEA, INSERM, Université Paris Sud, Université de Paris, LRP, UMR Genetic Stability,, Fontenay-aux-Roses, France</i>
16:50-17:00	S16.08	Deuterium MRS of glucose metabolism in the brain of an Alzheimer mouse model Veltien, A. ¹ , van Asten, S. ¹ , Peeters, T. ¹ , Wiesmann, M. ² , Kiliaan, A. ² , Heerschap, A. ³ ¹ Radboud University Medical Centre, Radiology and Nuclear Medicine, Nijmegen, Netherlands, ² Radboud University Medical Centre, Anatomy, Nijmegen, Netherlands, ³ Radboud University Nijmegen, Radiology and Nuclear Medicine, Nijmegen, Netherlands
17:00-17:10	S16.09	MRI-CEST imaging of tumor metabolism and acidosis for characterizing murine tumor aggressiveness Anemone, A. ¹ , Capozza, M. ¹ , Dhakan, C. ² , Rani, B. ¹ , Zullino, S. ¹ , Arena, F. ¹ , Terreno, E. ¹ , Longo, D. ² , Aime, S. ¹ ¹ University of Torino, Dept of Molecular Biotechnologies and Health Sciences, Turin, Italy, ² National Research Council of Italy (CNR), Institute of Biostructures and Bioimaging (IBB), Turin, Italy
15:40-16:40 The Stage	L05	MRI Applications Outside of the Brain
	Moderation:	Pontana, F., France Froeling, M., Utrecht, Netherlands
15:40-15:42	L05.01	Comprehensive characterization of experimental aortic valve stenosis by multiparametric MRI Flögel, U. ¹ , Quast, C. ² , Jacoby, C. ¹ , Bönner, F. ² , Gyamfi-Poku, I. ² , Piayda, K. ² , Erkens, R. ² , Kelm, M. ² ¹ Heinrich Heine University, Experimental Cardiovascular Imaging, Düsseldorf, Germany, ² Heinrich Heine University, Department of Cardiology, Düsseldorf, Germany
15:42-15:44	L05.02	Long-term stability of native MOLLI 5s(3s)3s T1 mapping in young healthy subjects Dresselaers, T. ¹ , Tilborghs, S. ² , Versluis, M. ³ , Claessen, G. ⁴ , Goetschalckx, K. ⁴ , De Bruin, P. ³ , Willems, R. ⁴ , Maes, F. ² , Bogaert, J. ¹ ¹ KU Leuven, Department of Imaging and Pathology, Radiology, Leuven, Belgium, ² KU Leuven, Department of Electrical Engineering, ESAT/PSI, Leuven, Belgium, ³ Philips, Health Systems, Eindhoven, Netherlands, ⁴ KU Leuven, Department of Cardiovascular Sciences, Leuven, Belgium
15:44-15:46	L05.03	Characterisation of circumferential strains from <i>in-vivo</i> MR images – Insight into a possible diagnostic measure for plaque vulnerability Johnston, R. D. ¹ , Stone, A. J. ¹ , Bourke, M. ² , Madhavan, P. ² , Martin, Z. ² , Kerskens, C. ³ , Lally, C. ¹ ¹ Trinity College Dublin, Trinity Centre for Bioengineering & Department of Mechanical and Manufacturing Engineering, Dublin, Ireland, ² St James Hospital, Vascular and Endovascular Surgery, Dublin, Ireland, ³ Trinity College Dublin, Trinity College Institute for Neuroscience, Dublin, Ireland
15:46-15:48	L05.04	Joint Evaluation of Geometric Vessel Wall and Hemodynamic Parameters from Multi-Modal MR Images Kaufhold, L. ¹ , Harloff, A. ² , Huellebrand, M. ¹ , Strecker, C. ² , Zimmermann, J. ³ , Krafft, A. J. ⁴ , Hennig, J. ⁴ , Hennemuth, A. ⁵ ¹ Fraunhofer MEVIS, Bremen, Germany, ² University of Freiburg, Department of Neurology Medical Center – University of Freiburg, Faculty of Medicine, Freiburg, Germany, ³ Technical University of Munich, Department of Computer Science, Munich, Germany, ⁴ University of Freiburg, Department of Radiology, Medical Physics, Medical Center – University of Freiburg, Faculty of Medicine, Freiburg, Germany, ⁵ Charité-Universitätsmedizin Berlin, Berlin, Germany
15:48-15:50	L05.05	Assessment of strain and hemodynamic forces in the mouse heart using retrospectively gated CINE imaging Dekkers, D. T. ¹ , Coolen, B. F. ¹ , Daal, M. R. ¹ , Blanken, C. P. ² , Hautemann, D. ³ ,

		<p>Wüst, R. C.¹, Strijkers, G. J.¹ ¹Amsterdam UMC, Biomedical Engineering and Physics, Amsterdam, Netherlands, ²Amsterdam UMC, Radiology, Amsterdam, Netherlands, ³Medis medical imaging systems BV, Leiden, Netherlands</p>
15:50-15:52	L05.06	<p>Comparison of myocardial T1-Mapping using real-time MRI and MOLLI at 1.5 Tesla Müller-Lutz, A.¹, Schleich, C.¹, Wiedkamp, J.¹, Stabinska, J.¹, Pillekamp, F.², Wittsack, H.-J.¹, Klee, D.³ ¹University Dusseldorf, Medical Faculty, Department of Diagnostic and Interventional Radiology, D-40225 Düsseldorf, Germany, ²University Children's Hospital, Heinrich-Heine University Düsseldorf, Department of General Pediatrics, Neonatology and Pediatric Cardiology, D-40225 Düsseldorf, Germany, ³University Dusseldorf, Medical Faculty, Department of Diagnostic and Interventional Radiology, D-40225 Dusseldorf, Germany</p>
15:52-15:54	L05.07	<p>Simple semi-automatic quantification of haematomyocardial barrier permeability for polyacetate complexes of Gd in ischaemic and inflammatory myocardial damage Ussov, W.-Y.¹, Fisenko, A. Y.², Bakhmetyeva, M. I.³, Mochuia, O. V.¹, Savello, N. V.⁴, Belichenko, O. I.⁵ ¹Tomsk Medical Research Center/ Institute of Cardiology, MRI Res. Lab, Tomsk, Russian Federation, ²Siberian State Medical University, Internal Medicine, Tomsk, Russian Federation, ³M.V.Lomonosov Moscow State university, Mechanics and mathematical faculty, Moscow, Russian Federation, ⁴R-Pharm Co., Saint - Petersburg, Russian Federation, ⁵Russian National State University of fitness, sport, youth and tourism, Research Institute of Sport Medicine, Moscow, Russian Federation</p>
15:54-15:56	L05.08	<p>Learning curves in radiological reporting of Whole-body MRI in plasma cell disease: a retrospective study. Stecco, A., Negrone, D., Cassarà, A., Berardo, S., Soligo, E., Trisoglio, A. A.O.U. Maggiore Hospital - UPO University, Novara, Italy</p>
15:56-15:58	L05.09	<p>withdrawn</p>
15:58-16:00	L05.10	<p>Change in T2' measurements in the rabbit placenta during gestation DRAVENY, R.¹, BERTHOLDT, C.², DAP, M.², SCHAAF, C.³, MOREL, O.², BEAUMONT, M.³ ¹Université de Lorraine, Inserm, IADI, Nancy, France -- Siemens Healthcare SAS, Saint-Denis, France, ²Université de Lorraine, Inserm, IADI, Nancy, France, ³Université de Lorraine, Inserm, IADI, Nancy, France -- CHRU-Nancy, Inserm, Université de Lorraine, CIC Innovation Technologique, Nancy, France</p>
16:00-16:02	L05.11	<p>T-staging of prostate cancer: prevalence and predictive value of frequently used signs of posterolateral extraprostatic extension on prostate MRI. Pesapane, F.^{1,2}, Standaert, C.³, Devisschere, P.³, Villeirs, G.³ ¹Università degli Studi di Milano, Postgraduation School in Radiodiagnostic, Milan, Italy, ²-, -, Italy, ³Ghent University Hospital, Ghent, Belgium., Department of Radiology and Nuclear Medicine, Gent, Belgium</p>
16:02-16:04	L05.12	<p>Volume-dependent comparative analysis of positron emission tomography and diffusion-weighted magnetic resonance imaging parameters in non-small cell lung cancer tissue Lucic, S.¹, Djan, I.¹, Kuhelj, D.², Koprivsek, K.¹, Zaric, B.¹, Lucic, M. A.¹ ¹University of Novi Sad, Medical Faculty, Novi Sad, Serbia, ²University of Ljubljana, Medical Faculty, Ljubljana, Slovenia</p>
16:04-16:06	L05.13	<p>MRI assessment of steatosis in pancreas, liver and skeletal muscle in patients with obesity, overweight and normal BMI in correlation with the metabolic syndrome criteria and central obesity Brzeska, B.¹, Pieńkowska, J.¹, Kozak, O.², Kaszubowski, M.³, Szurowska, E.¹ ¹Medical University of Gdansk, II Department of Radiology, Gdansk, Poland, ²Medical University of Gdansk, I Department of Radiology, Gdansk, Poland, ³Gdansk University of Technology, Department of Economic Sciences, Gdansk, Poland</p>
16:06-16:08	L05.14	<p>Pseudodiffusion and Perfusion Fraction Parameters of Intravoxel Incoherent Motion Can Both Augment Our Understanding of HBV-induced Hepatic Fibrosis and Help Non-invasive Staging Gulbay, M.</p>

		Ankara Numune Education and Research Hospital, Radiology, Ankara, Turkey
16:08-16:10	L05.15	<p>Pressure measurement in the stomach using MRI and microbubble-based contrast agents</p> <p>Abdurakman, E.¹, Bencsik, M.², Hoad, C.³, McGowan, S.², Cave, G.², Fairhurst, D.², Major, G.⁴, Gowland, P.³, Bowtell, R.³</p> <p>¹City, University of London, Division of Midwifery and Radiography, London, United Kingdom, ²Nottingham Trent University, School of Science & Technology, Nottingham, United Kingdom, ³University of Nottingham, Sir Peter Mansfield Imaging Centre, Nottingham, United Kingdom, ⁴Nottingham University Hospitals NHS Trust and University of Nottingham, National Institute for Health Research (NIHR) Biomedical Research Centre, Nottingham, United Kingdom</p>
16:10-16:12	L05.16	<p>Non-invasive Assessment of Splanchnic Flow in Patients Suspected of Mesenteric Ischaemia using MRI 4D Flow - Pilot Study</p> <p>Hall Barrientos, P.¹, Knight, K.², Black, D.³, Vesey, A.⁴, Roditi, G.³</p> <p>¹NHS Glasgow, Glasgow, United Kingdom, ²NHS Glasgow, Academic Unit of Surgery, Glasgow, United Kingdom, ³NHS Glasgow, Radiology, Glasgow, United Kingdom, ⁴NHS Lanarkshire, Vascular Surgery, Glasgow, United Kingdom</p>
16:12-16:14	L05.17	withdrawn
16:14-16:16	L05.18	withdrawn
16:16-16:18	L05.19	<p>Application of an UTE-based short-T2-signal-fraction mapping in patients with congenital myopathies</p> <p>Caldas de Almeida Araujo, E.¹, Vignaud, A.², Guillot, G.³, Marty, B.¹, Baudin, P.-Y.⁴, Stojkovic, T.⁵, Servais, L.⁶, Eymard, B.⁵, Carlier, P. G.¹</p> <p>¹Institute of Myology, Neuromuscular Investigation Center, Paris, France, ²UNIRS & University Of Paris-Saclay, CEA/DRF/JOLIOT/NeuroSpin, Gif-Sur-Yvette, France, ³University Of Paris-Saclay, IR4M UMR8081, CNRS, Orsay, France, ⁴Consultants for Research in Imaging and Spectroscopy, Tournai, Belgium, ⁵Institute of Myology, Neuromuscular Reference Center, Paris, France, ⁶I-Motion, Paris, France</p>
16:18-16:20	L05.20	<p>Comparison of perfusion parameters in psoriasis arthritis patients before and after therapy</p> <p>Müller-Lutz, A., Schleich, C., Tsoneva, M., Stabinska, J., Wittsack, H.-J.</p> <p>University Dusseldorf, Medical Faculty, Department of Diagnostic and Interventional Radiology, D-40225 Düsseldorf, Germany</p>
16:20-16:22	L05.21	<p>Sub-regional Quantification of Tissue-Specific Hydration State in Patellar Tendinopathy with 3D Ultrashort Echo Time MRI</p> <p>Breda, S. J.¹, Poot, D. H.¹, Papp, D.¹, Krestin, G. P.¹, de Vos, R. J.², Oei, E.¹</p> <p>¹Erasmus University Medical Center, Radiology & Nuclear Medicine, Rotterdam, Netherlands, ²Erasmus University Medical Center, Orthopedics, Rotterdam, Netherlands</p>
16:22-16:24	L05.22	<p>Can disease progression be predicted in forearm muscle of Duchenne muscular dystrophy patients using quantitative fat-water NMRI?</p> <p>Reyngoudt, H.¹, Baudin, P.-Y.², Le Louër, J.¹, Honnet, G.³, Servais, L.⁴, Marty, B.¹, Carlier, P. G.¹</p> <p>¹Institute of Myology, AIM-CEA, NMR Laboratory, Neuromuscular Investigation Center, Paris, France, ²Consultants for Research in Imaging and Spectroscopy, Tournai, Belgium, ³Genethon, Evry, France, ⁴Trousseau Pediatric Hospital AP-HP, I-Motion, Paris, France</p>
16:24-16:26	L05.23	<p>MRI of wrist bone marrow: isotropic mapping of fat fraction, water and fat T1 and T2* relaxation times.</p> <p>Marage, L.¹, Lasbleiz, J.¹, Lederlin, M.², Gambarota, G.¹, Saint-Jalmes, H.¹</p> <p>¹Univ Rennes, Inserm, LTSI – UMR 1099, Rennes, France, ²CHU Rennes, Rennes, France</p>
16:26-16:28	L05.24	<p>Intravoxel Incoherent Motion (IVIM) MRI in wrist bone marrow using the Multishot Readout-Segmented (RESOLVE) echo planar imaging sequence.</p> <p>Marage, L.¹, Lasbleiz, J.¹, Lederlin, M.², Saint-Jalmes, H.¹, Gambarota, G.¹</p> <p>¹Univ Rennes, Inserm, LTSI – UMR 1099, Rennes, France, ²CHU Rennes, Rennes, France</p>

16:28-16:30	L05.25	<p>Angular dependence of UTE signal of cortical bone – a pilot study of assessing structure of collagen matrix using MRI Masuyama, K.¹, Tang, M.², Todoh, M.³, Yamamoto, T.² ¹Teine Keijinkai Hospital, Sapporo, Japan, ²Faculty of Health Sciences, Hokkaido University, Sapporo, Japan, ³Faculty of Engineering, Hokkaido University, Sapporo, Japan</p>
16:30-16:32	L05.26	<p>Prospective multiparametric MR monitoring of changes in hyaline cartilage of the knee joint after implantation of biological collagen type I matrix implants Sprlakova-Pukova, A.¹, Tintera, J.², Repko, M.³, Valis, P.³ ¹The University Hospital Brno, Department of Radiology and Nuclear Medicine, Brno, Czech Republic, ²IKEM, ZRIR, Prague, Czech Republic, ³The University Hospital Brno, Department of Orthopedics, Brno, Czech Republic</p>
16:32-16:34	L05.27	<p>withdrawn</p>
16:34-16:36	L05.28	<p>Polyunsaturated fatty acids (PUFA) depletion is associated with high serotonin turnover in human whole breast tumour Cheung, S. M.¹, Husain, E.², Masannat, Y.³, Wahle, K.⁴, Heys, S. D.³, He, J.¹ ¹University of Aberdeen, Aberdeen, United Kingdom, ²Aberdeen Royal Infirmary, Pathology Department, Aberdeen, United Kingdom, ³Aberdeen Royal Infirmary, Breast Unit, Aberdeen, United Kingdom, ⁴University of Strathclyde, Strathclyde Institute of Pharmacy and Biological Sciences, Glasgow, United Kingdom</p>
16:36-16:38	L05.29	<p>Intracellular Water Lifetime as a Tumour Biomarker for diagnosis and therapy outcome by FFC-Relaxometry in breast cancer MARIA ROSARIA, R., Baroni, S., Rapisarda, S., Aime, S., Geninatti Crich, S. University of Turin, Turin, Italy</p>
16:38-16:40	L05.30	<p>Optimal Phased-Array Signal Combination For Polyunsaturated Fatty Acids Measurement In Breast Cancer Using Multiple Quantum Coherence MR Spectroscopy At 3T Mallikourti, V.¹, Cheung, S. M.¹, Gagliardi, T.², Masannat, Y.³, Heys, S.³, He, J.¹ ¹University of Aberdeen, Aberdeen Biomedical Imaging Centre, Aberdeen, United Kingdom, ²Department of Clinical Radiology, Aberdeen Royal Infirmary, Aberdeen, United Kingdom, ³Breast Unit, Aberdeen Royal Infirmary, Aberdeen, United Kingdom</p>
15:40-16:40 Scientific Exhibition	P02	<p>Innovations in MR Technology</p>
	P02.01	<p>A correction method for motion-induced signal dropout in diffusion MRI Huang, C.-F. J.¹, Chen, Y.-J.², Hsu, Y.-C.², Tseng, W.-Y. I.² ¹National Taiwan University, Institute of Biomedical Engineering, Taipei, Taiwan, ²National Taiwan University, Institute of Medical Device and Image, Taipei, Taiwan</p>
	P02.02	<p>An Ultrasound-Guided Injection method for a refinement and efficient Breast Tumor Induction into mice La Cava, F.¹, Fringuello Mingo, A.², Colombo Serra, S.², Di Vito, A.², Cabella, C.², Oliva, P.², Cordaro, A.², Terreno, E.¹, Miragoli, L.² ¹Università di Torino, Department of Molecular Biotechnology and Health Center, Torino, Italy, ²Bracco Imaging spa, Colleretto Giacosa, Italy</p>
	P02.03	<p>Automated segmentation of bone regions by deep learning for the quantitative analysis of whole-body magnetic resonance imaging Hayashi, N.¹, Iwasaki, K.¹, Sato, Y.², Maruyama, T.³, Motegi, S.⁴, Ogura, A.¹, Ogura, T.¹, Kumasaka, S.⁵, Tsushima, Y.⁵ ¹Gunma Prefectural College of Health Sciences, Radiological Technology, Maebashi, Japan, ²Gunma University Hospital, Radiology, Maebashi, Japan, ³Shinshu University Hospital, Radiological Technology, Matsumoto, Japan, ⁴Josai Clinic, Radiology, Maebashi, Japan, ⁵Gunma University Graduate School of Medicine, Diagnostic Radiology and Nuclear Medicine, Maebashi, Japan</p>
	P02.04	<p>Active Learning for the Adaption of Trained CNN Models for Detection of Motion Artifacts to New Data</p>

		Liebgott, A. ¹ , Haueise, T. ² , Küstner, T. ² , Nikolaou, K. ¹ , Yang, B. ² , Gatidis, S. ¹ <i>¹University Hospital of Tuebingen, Diagnostic and Interventional Radiology, Tuebingen, Germany, ²University of Stuttgart, Institute of Signal Processing and System Theory, Stuttgart, Germany</i>
	P02.05	3D Rigid-Body Motion Estimation for Brain Imaging using Orbital Navigators and Field Monitoring Ulrich, T. , Patzig, F., Wilm, B. J., Prüssmann, K. P. <i>ETH Zürich and University of Zürich, Institute for Biomedical Engineering, Zürich, Switzerland</i>
	P02.06	On Accurate Metabolite Quantification in Presence of Different Coil Loading. "TRAMP" Method for Single Voxel MR Spectroscopy Revised. Sitnikov, R. <i>Karolinska University Hospital, Neuroradiology, Stockholm, Sweden</i>
	P02.07	withdrawn
	P02.08	Tracking integrity and localization of cell-containing capsules. Haeck, J. ¹ , Khatab, S. ² , Leijs, M. ² , van Buul, G. ³ , van Osch, G. ⁴ , Bernsen, M. ¹ <i>¹Erasmus MC, Radiology & Nuclear medicine, Rotterdam, Netherlands, ²Erasmus MC, Radiology & Nuclear medicine; Orthopaedics, Rotterdam, Netherlands, ³Erasmus MC, Orthopaedics, Rotterdam, Netherlands, ⁴Erasmus MC, Orthopaedics; Otorhinolaryngology, Rotterdam, Netherlands</i>
	P02.09	3D rigid body motion correction in ASL-perfusion imaging using 3D GRASE PROPELLER Huber, J. , Hoinkiss, D. C., Vicari, M., Günther, M., Wilke, R. <i>Fraunhofer MEVIS, Bremen, Germany</i>
	P02.10	Novel pixel-based approach for artifact evaluation of passive implants in MRI validated on intruterine devices at 3T Brumer, I., Adlung, A. , Neumann, W., Uhrig, T., Malzacher, M., Schad, L. R., Zöllner, F. G. <i>Computer Assisted Clinical Medicine, Medical Faculty Mannheim, Heidelberg University, Mannheim, Germany</i>
	P02.11	Robust outlier detection for diffusion kurtosis MRI based on IRLLS Anania, V. ¹ , Billiet, T. ¹ , Jeurissen, B. ² , Sijbers, J. ² , den Dekker, A. J. ² <i>¹icometrix, Research and Development, Leuven, Belgium, ²imec - Vision Lab, University of Antwerp, Department of Physics, Antwerp, Belgium</i>
	P02.12	GROG based Compressed Sensing for Accelerated Radial MRI Hassan, M. H. ¹ , Zainab, R. ¹ , Aslam, I. ² , Afsar, K. ¹ , Omer, H. ¹ <i>¹COMSATS University Islamabad, Electrical and Computer Engineering, Islamabad, Pakistan, ²Hospital University of Geneva, Department of Radiology and Medical Informatics, Geneva, Switzerland</i>
	P02.13	Reconstruction of under-sampled Radial MRI using SC-GROG followed by Singular Value Thresholding (SVT) based CS Bhatti, H. J. ¹ , Amir, F. ¹ , Aslam, I. ² , Omer, H. ¹ <i>¹COMSATS University Islamabad, Electrical and Computer Engineering, Islamabad, Pakistan, ²Hospital University of Geneva, Department of Radiology and Medical Informatics, Geneva, Switzerland</i>
	P02.14	Koch Snowflake Fractal RF Surface Coils to Improve ²³Na – Magnetic Resonance Imaging at 3T Nowikow, C. ¹ , Konyer, N. ² , Yazdanbakhsh, P. ³ , Noseworthy, M. ⁴ <i>¹McMaster University, School of Biomedical Engineering, Hamilton, Canada, ²St. Joseph's Healthcare, Imaging Research Centre, Hamilton, Canada, ³Ceresensa Inc., Toronto, Canada, ⁴McMaster University, Electrical and Computer Engineering, Hamilton, Canada</i>
	P02.15	Calibrationless Parallel Imaging with Compressed Sensing for GROG based Radial MRI Zainab, R. ¹ , Hassan, M. H. ¹ , Aslam, I. ² , Omer, H. ¹ <i>¹COMSATS University Islamabad, Electrical and Computer Engineering, Islamabad, Pakistan, ²Hospital University of Geneva, Department of Radiology and Medical Informatics, Geneva, Switzerland</i>
	P02.16	Commissioning of a low-field rampable magnet for a high-resolution MRI system Rigla Pérez, J. P. ¹ , Corberan, M. ² , Grau-Ruiz, D. ¹ , Borreguero, P. ² , Gonzalez,

		J. M. ¹ , Pallas, E. ² , Rios, A. ¹ , Alonso, J. ² , Benlloch, J. M. ² <i>¹Tesoro Imaging S.L., Valencia, Spain, ²Institute for Instrumentation for Molecular Imaging (i3M), Spanish National Research Council (CSIC), Valencia, Spain</i>
	P02.17	GPU Accelerated GRAPPA Reconstruction for Real-time Cardiac MRI Akram, H., Laraib, Z., Inam, O., Qureshi, M., Omer, H. <i>COMSATS University Islamabad, Department of Electrical & Computer Engineering, Islamabad, Pakistan</i>
	P02.18	Bio-inspired surface coil for preclinical MRI at 15.2 T Solis, S. ¹ , Vazquez, F. ¹ , Martin, R. ¹ , Lazovic, J. ² , Marrufo, O. ³ , Medina, L. ¹ , Rodriguez, A. ⁴ <i>¹Universidad Nacional Autonoma de Mexico, Facultad de Ciencias, Departamento de Fisica, Mexico City, Mexico, ²Vienna Biocenter Core Facilities, Vienna, Austria, ³National Institute of Neurology and Neurosurgery MVS, Department of Neuroimaging, Mexico City, Mexico, ⁴Universidad Autonoma Metropolitana Iztapalapa, Department of Electrical Engineering, Mexico City, Mexico</i>
	P02.19	Estimation of B₀ for traveling-wave MRI with a parallel-plate waveguide at 15.2 T Solis, S. ¹ , Vazquez, F. ¹ , Lazovic, J. ² , Martin, R. ¹ , Medina, L. ¹ , Marrufo, O. ³ , Rodriguez, A. ⁴ <i>¹Universidad Nacional Autonoma de Mexico, Facultad de Ciencias, Departamento de Fisica, Mexico City, Mexico, ²Vienna Biocenter Core Facilities, Vienna, Austria, ³National Institute of Neurology and Neurosurgery MVS, Department of Neuroimaging, Mexico City, Mexico, ⁴Universidad Autonoma Metropolitana Iztapalapa, Department of Electrical Engineering, Mexico City, Mexico</i>
	P02.20	FPGA based Accelerated Pre-Scan Method for Sensitivity Estimation of Receiver Coils using High Level Synthesis Inam, O. ¹ , Akber, A. ² , Naeem, F. ² , Ashraf, M. M. ¹ , Qureshi, M. ¹ <i>¹COMSATS University Islamabad, Electrical & Computer Engineering, Islamabad, Pakistan, ²COMSATS University Islamabad, Electrical and Computer Engineering, Islamabad, Pakistan</i>
	P02.21	Magnetic Resonance Image Compilation (MAGiC): Applications beyond brain Vadapalli, R. ¹ , Mulukutla, R. d. ² , Vadapalli, a. s. ³ , Annamraju, R. b. ⁴ <i>¹Vijaya Diagnostics, Radiology, Hyderabad, India, ²Udai Omni Hospitals, Spine surgery, Hyderabad, India, ³Medway Maritime Hospital Windmill Road Gillingham Kent, Orthopaedic surgery, Hyderabad 500020, India, ⁴GE Healthcare, Digital innovations in affordable care, Bangalore, India</i>
	P02.22	Feasibility of single voxel CEST measurements with a transceiver surface coil Kleimaier, D., Schad, L. R. <i>Heidelberg University, Computer Assisted Clinical Medicine, Mannheim, Germany</i>
	P02.23	Can bolus injection duration explain the difference in CBF estimates from DSC- and CT-perfusion? Arvidsson, J., Jalnefjord, O., Lagerstrand, K., Starck, G. <i>Sahlgrenska University Hospital, Department of Medical Physics and Biomedical Engineering, Gothenburg, Sweden</i>
17:20-18:20 Room 1 - Willem Burger Zaal	I18	Hot Topic Debate MR-PET: More Efficient or a Waste of Money?
	Moderation:	Rockall, A., London, United Kingdom
17:20-17:30	I18.01	Opponent Fraioli, F. <i>London, United Kingdom</i>
17:30-17:40	I18.02	Proponent

18:30-19:30 Room 3 - Ruys & van Rijckevorsel Zaal		ESMRMB Annual Business Meeting

Saturday, October 4, 2019

08:00-09:00 Room 1 - Willem Burger Zaal	I19	Robustness and Motion Correction
	Moderation:	Brunner, D., Zurich, Switzerland Zaitsev, M., Germany
08:00-08:30	I19.01	Hardware and Sequence Solutions Gallichan, D. <i>CUBRIC, Cardiff University, School of Engineering, Cardiff, United Kingdom</i>
08:30-09:00	I19.02	Fetal MRI: New Sequences for old problems Prayer, D. <i>Medical University Vienna, Vienna, Austria</i>
08:00-09:00 Room 2 - Van Weelde Zaal	I20	Segmentation and Classification by Machine Learning
	Moderation:	Barfoot, T., Sutton, United Kingdom van Osch, M., Netherlands
08:00-08:30	I20.01	Methodology for Segmentation and Classification de Bruijne, M. <i>Erasmus MC, Rotterdam, Netherlands</i>
08:30-09:00	I20.02	Clinical evaluation of cardiac image segmentation and artificial intelligence O'Regan, D. <i>Imperial College London, MRC London Institute of Medical Sciences, London, United Kingdom</i>
08:00-09:00 Room 3 - Ruys & van Rijckevorsel Zaal	I21	Clinical Brain Imaging Without Gadolinium
	Moderation:	Lavini, C., Netherlands Warnert, E., Netherlands
08:00-08:30	I21.01	Structure and Function of the Blood-Brain Barrier in Health and Disease de Vries, E. <i>Amsterdam UMC, Amsterdam, Netherlands</i>
08:30-09:00	I21.02	Blood-Brain Barrier Breakdown Detection Without the Use of Gd based Contrast Agents Knutsson, L. <i>Lund University, Medical Radiation Physics, Lund, Sweden</i>
09:15-10:30 Room 1 - Willem Burger Zaal	I22	Efficient MR Imaging
	Moderation:	Nöbauer-Huhmann, I., Austria Poser, B., Netherlands
09:15-09:40	I22.01	Hardware for Efficient MRI Brunner, D. <i>University and ETH Zurich, Institute for Biomedical Engineering, Zurich, Switzerland</i>
09:40-10:05		Approaches for efficient MRI data acquisition Doneva, M. <i>Philips Research, Hamburg, Germany</i>
10:05-10:30	I22.03	Clinical Impact of Compressed Sensing Trattnig, S. <i>Medical University of Vienna, High Field MR Center, Department of Biomedical</i>

		<i>Imaging and Image Guided Therapy, Vienna, Austria</i>
10:50-12:20 Room 1 - Willem Burger Zaal	S17	Image Analysis & Post Processing
	Moderation:	Kuijf, H., Netherlands Chappell, M. A., Oxford, United Kingdom
10:50-11:00	S17.01	Discrimination of subjects with and without osteophytes using a radiomics approach on tibial bone Hirvasniemi, J.¹ , Klein, S. ² , Schiphof, D. ³ , Oei, E. ¹ <i>¹Erasmus MC, Department of Radiology & Nuclear Medicine, Rotterdam, Netherlands, ²Erasmus MC, Department of Radiology & Nuclear Medicine and Department of Medical Informatics, Rotterdam, Netherlands, ³Erasmus MC, Department of General Practice, Rotterdam, Netherlands</i>
11:00-11:10	S17.02	Diffusion-weighted imaging informed gradient-echo myelin water imaging Chan, K.-S. , Marques, J. P. <i>Donders Institute for Brain, Cognition and Behaviour, Nijmegen, Netherlands</i>
11:10-11:20	S17.03	T₁ saturation effects in myelin water fraction measures: does myelin water have its distinct T₁? Oros-Peusquens, A.-M. , Thomas, D., Zimmermann, M., Shah, N. J. <i>Research Centre Juelich, INM-4, Juelich, Germany</i>
11:20-11:30	S17.04	Automatic sorting of brain magnetic resonance imaging sequences using convolutional neural networks van der Voort, S. , Smits, M., Klein, S. <i>Erasmus MC, Rotterdam, Netherlands</i>
11:30-11:40	S17.05	Development of a realistic numerical phantom to test and validate CMR feature tracking software Adams, D. , Boubertakh, R., Miquel, M. E. <i>Barts Health NHS Trust, Clinical Physics, London, United Kingdom</i>
11:40-11:50	S17.06	Quantification of mitral valve regurgitation from 4D flow MRI using semi-automated flow tracking Blanken, C. P. S.¹ , Westenberg, J. J. M. ² , Aben, J.-P. ³ , Bijvoet, G. P. ⁴ , Chamuleau, S. A. ⁵ , Nederveen, A. J. ¹ , Leiner, T. ⁵ , Planken, R. N. ¹ , van Ooij, P. ¹ <i>¹Amsterdam UMC, location AMC, Amsterdam, Netherlands, ²LUMC, Leiden, Netherlands, ³Pie Medical Imaging, Maastricht, Netherlands, ⁴MUMC, Maastricht, Netherlands, ⁵UMCU, Utrecht, Netherlands</i>
11:50-12:00	S17.07	Deep learning based processing for quantitative myocardial perfusion MRI Scannell, C. M.¹ , Veta, M. ² , Villa, A. ¹ , Sammut, E. ³ , Lee, J. ¹ , Breeuwer, M. ⁴ , Chiribiri, A. ¹ <i>¹King's College London, School of Biomedical Engineering and Imaging Sciences, London, United Kingdom, ²Eindhoven University of Technology, Eindhoven, Netherlands, ³University of Bristol, Bristol Heart Institute and Translational Biomedical Research Centre, Bristol, United Kingdom, ⁴Philips Healthcare, Best, Netherlands</i>
12:00-12:10	S17.08	Robust Quantification of Spontaneous Muscular Activities by Simultaneous Interpretation of sEMG Data Schwartz, M.^{1,2} , Küstner, T. ¹ , Martirosian, P. ¹ , Machann, J. ¹ , Steidle, G. ¹ , Yang, B. ² , Schick, F. ¹ <i>¹University Hospital of Tübingen, Section on Experimental Radiology, Tübingen, Germany, ²University of Stuttgart, Institute of Signal Processing and System Theory, Stuttgart, Germany</i>
12:10-12:20	S17.09	Numerical feasibility study of voxel by voxel signal classifications to detect glioblastoma multiforme in mice based on endogenous static BOLD contrast using random forests Hahn, A.¹ , Schuegger, S. ² , Bode, J. ³ , Sturm, V. J. F. ¹ , Breckwoldt, M. O. ¹ , Heiland, S. ¹ , Ziener, C. H. ⁴ , Bendszus, M. ¹ , Kurz, F. T. ¹ <i>¹Heidelberg University Hospital, Department of Neuroradiology, Heidelberg, Germany, ²University of Heidelberg, Department of Physics and Astronomy, Heidelberg, Germany, ³German Cancer Research Center (DKFZ), Schaller Research Group, Molecular Mechanisms of Tumor Invasion, Heidelberg, Germany, ⁴German Cancer Research Center (DKFZ), Department of Radiology E010, Heidelberg, Germany</i>

10:50-11:50 Room 2 - Van Weelde Zaal	I23	CEST as an Alternative to Gadolinium
	Moderation:	Wijnen, J., Netherlands Knutsson, L., Sweden
10:50-11:20	I23.01	Basics of CEST - From Invention to Interpretation in Animal Models Hoerr, V. <i>Jena University Hospital, Institute of Medical Microbiology, Jena, Germany</i>
11:20-11:50	I23.02	How Can CEST Reduce Gadolinium Use Zaiss, M. <i>Max-Planck-Institute for biological cybernetics, Tübingen, Germany</i>
10:50-12:20 Room 3 - Ruys & van Rijckevorsel Zaal	S18	Musculoskeletal Imaging
	Moderation:	Hollingsworth, K., United Kingdom Kan, H., Netherlands
10:50-11:00	S18.01	Introduction Hollingsworth, K. <i>Newcastle, United Kingdom</i>
11:00-11:10	S18.02	Feasibility of quantitative MRI in eye muscles Keene, K. R. ¹ , van Vught, L. ² , Ciggaar, I. A. ² , Notting, I. C. ³ , Genders, S. W. ³ , Verschuuren, J. J. G. M. ⁴ , Tannemaat, M. R. ⁴ , Kan, H. E. ⁵ , Beenakker, J. W. M. ² <i>¹Leiden University Medical Center, CJ Gorter center for high field MRI and Neurology, Leiden, Netherlands, ²Leiden University Medical Center, CJ Gorter center for high field MRI and Ophthalmology, Leiden, Netherlands, ³Leiden University Medical Center, Ophthalmology, Leiden, Netherlands, ⁴Leiden University Medical Center, Neurology, Leiden, Netherlands, ⁵Leiden University Medical Center, CJ Gorter center for high field MRI, Leiden, Netherlands</i>
11:10-11:20	S18.03	withdrawn
11:20-11:30	S18.04	A novel DTI method for quantification of skeletal muscle pennation angles Secondulfo, L. ¹ , Hooijmans, M. ² , Froeling, M. ³ , Mazzoli, V. ⁴ , Nederveen, A. ² , Strijkers, G. ¹ <i>¹Amsterdam University Medical Center, Department of Biomedical Engineering and Physics, Amsterdam, Netherlands, ²Amsterdam University Medical Center, Department of Radiology and Nuclear Medicine, Amsterdam, Netherlands, ³Utrecht Medical Center, Department of Radiology, Utrecht, Netherlands, ⁴Lucas Center for Imaging, Department of Radiology, Stanford, United States</i>
11:30-11:40	S18.05	Muscle usage difference due to laterality –Evaluation by dynamic T2 mapping– Kido, A. ¹ , Shimohara, S. ² , Nitanda, Y. ³ , Tang, M. ¹ , Tawara, N. ⁴ , Samukawa, M. ¹ , Yamamoto, T. ¹ <i>¹Hokkaido University, Sapporo, Japan, ²Asahikawa Medical College Hospital, Asahikawa, Japan, ³Kin-ikyō chuo Hospital, Sapporo, Japan, ⁴Japan Health Care Collage, Sapporo, Japan</i>
11:40-11:50	S18.06	Quantitative volume and blood perfusion parameters of the infrapatellar fatpad and the relationship with edema and effusion in patients with patellofemoral pain. van der Heijden, R. ¹ , de Vries, B. ¹ , Poot, D. ¹ , van Middelkoop, M. ² , Krestin, G. ¹ , Oei, E. ¹ <i>¹Erasmus Medical Center, Radiology and Nuclear Medicine, Rotterdam, Netherlands, ²Erasmus Medical Center, General Practice, Rotterdam, Netherlands</i>
11:50-12:00	S18.07	Quantitative MR blood perfusion patterns of infrapatellar fat pad T2

		<p>hyperintense lesions on unenhanced MR in patients with and without knee osteoarthritis. de Vries, B.¹, van der Heijden, R.¹, Poot, D.¹, van Middelkoop, M.², Krestin, G.¹, Oei, E.¹ ¹Erasmus Medical Center, Radiology and Nuclear Medicine, Rotterdam, Netherlands, ²Erasmus Medical Center, General Practice, Rotterdam, Netherlands</p>
12:00-12:10	S18.08	<p>A Split-Label Design for Simultaneous Measurements of Muscle Perfusion in Distant Slices by Pulsed Arterial Spin Labeling Veeger, T. T., Baligand, C., Franklin, S. L., van Osch, M. J., Kan, H. E., Hirschler, L. <i>Leiden University Medical Center, C.J. Gorter Center for High Field MRI, Department of Radiology, Leiden, Netherlands</i></p>
12:10-12:20	S18.09	<p>Mid-term repeatability of sodium levels in skeletal tissue at 3T Gerhalter, T., Gast, L. V., Nagel, A. M. <i>University Hospital Erlangen, Institute of Radiology, Erlangen, Germany</i></p>
10:50-12:20 Room 4 - Plate & Van der Vorm Zaal	I24	<p>How to 'Spin-off' from Research brought to you by the ISMRM Benelux Chapter</p>
	Moderation:	<p>Ercan, E., Leiden, Netherlands van der Kolk, A., Utrecht, Netherlands</p>
10:50-11:10	I24.01	<p>Riding the wave with Wave Tronica Haghnejad, A. <i>Netherlands</i></p>
11:10-11:30	I24.02	<p>The brains behind artificial intelligence company Icometrix van Hecke, W. <i>Netherlands</i></p>
11:30-11:50	I24.03	<p>Forcare: From start-up to scale-up in a decade Hamster, A. <i>Netherlands</i></p>
11:50-12:10	I24.04	<p>The Quantib story: from academic research to regulatory approved AI products Niessen, W. <i>Rotterdam, Netherlands</i></p>
10:50-11:50 The Stage	L06	<p>Acquisition, Reconstruction & Quantification</p>
	Moderation:	<p>Strijkers, G., Netherlands Hernandez-Tamames, J. A., Netherlands</p>
10:50-10:52	L06.01	<p>An MRI method for the differentiation of mineralized iron in the brain Bossoni, L., Webb, A., van der Weerd, L. <i>Leiden University Medical Center, Radiology, Leiden, Netherlands</i></p>
10:52-10:54	L06.02	<p>Comparing Conventional and Synthetic 3D T1w MRI for Brain Tissue Volumes Quantification Tisell, A.^{1,2}, Warntjes, M. J. B.³, Blystad, I.¹, Lundberg, P.¹ ¹Linköping University, CMIV, Linköping, Sweden, ²Linköping University, Medical radiation physics, Linköping, Sweden, ³Linköping University, CMVI, Linköping, Sweden</p>
10:54-10:56	L06.03	<p>withdrawn</p>

10:56-10:58	L06.04	<p>T₁ Bias Reduction in the Quantification of Tissue Sodium Concentration Using Flip Angle Sweep Chacon-Caldera, J., Adlung, A., Paschke, N., Hu, R., Schad, L. R. <i>Heidelberg University, Medical Faculty Mannheim, Computer Assisted Clinical Medicine, Mannheim, Germany</i></p>
10:58-11:00	L06.05	<p>Abdominal magnetic resonance fingerprinting for T₁ and T₂* quantification of the kidneys Hermann, I.¹, Brumer, I.¹, Rieger, B.¹, Chacon-Caldera, J.¹, Weingärtner, S.², Schad, L.¹, Zöllner, F.¹ ¹<i>University Heidelberg, University Medical Center Mannheim, Computer Assisted Clinical Medicine, Mannheim, Germany</i>, ²<i>Delft University of Technology, Department of Imaging Physics, Delft, Netherlands</i></p>
11:00-11:02	L06.06	<p>Bi-component fitting for reduced partial volume effects due to fat in MOLLI T₁ mapping Gaspar, A. S.¹, Freitas, A. C.¹, da Silva, N. A.², Nunes, R. G.¹ ¹<i>Instituto Superior Técnico Universidade de Lisboa, ISR-Lisboa/LARSyS and Department of Bioengineering, Lisbon, Portugal</i>, ²<i>Hospital da Luz Learning Health, Lisbon, Portugal</i></p>
11:02-11:04	L06.07	<p>In vitro and in vivo evaluation of radial turbo-spin-echo-based T₂ mapping of the liver Bencikova, D.¹, Kannengieser, S.², Natsuaki, Y.³, Reiter, G.⁴, Ba-Ssalamah, A.¹, Trattnig, S.¹, Krššák, M.⁵ ¹<i>Medical University Vienna, Department of Radiology, Vienna, Austria</i>, ²<i>Siemens Healthcare GmbH, Erlangen, Germany</i>, ³<i>Siemens Medical Solutions, Inc., Los Angeles, CA, United States</i>, ⁴<i>Siemens Healthineers Austria, Graz, Austria</i>, ⁵<i>Christian Doppler Laboratory for Clinical Molecular Imaging, MOLIMA, MUW, Vienna, Austria</i></p>
11:04-11:06	L06.08	<p>Improving PCASL at 7 T using a VERSE-guided parallel transmission strategy Tong, Y., Jezard, P., Okell, T. W., Clarke, W. T. <i>University of Oxford, Wellcome Centre for Integrative Neuroimaging, FMRIB Division, NDCN, Oxford, United Kingdom</i></p>
11:06-11:08	L06.09	<p>Tradeoff between fat-suppression and partial-voluming in weighted combination alternating repetition-time (ATR) balanced SSFP Shahdloo, M., Çukur, T. <i>Bilkent University, Electrical and Electronics Engineering Department and National MR Research Center (UMRAM), Ankara, Turkey</i></p>
11:08-11:10	L06.10	<p>3D heart localization for free breathing cardiac MR navigators in real time at 3T and 7T Körner, T., Wampl, S., Meyerspeer, M., Trattnig, S., Moser, E., Schmid, A. <i>Medical University of Vienna, Center for Medical Physics and Biomedical Engineering, Vienna, Austria</i></p>
11:10-11:12	L06.11	<p>Using a field camera to monitor head movement in 7T scanner Bortolotti, L., Smith, J., Gowland, P., Bowtell, R. <i>Sir Peter Mansfield Imaging Centre, School of Physics and Astronomy, University of Nottingham., Nottingham, United Kingdom</i></p>
11:12-11:14	L06.12	<p>A new generation optical prospective motion correction system: Initial results Syversen, I. F.¹, Svarlaunet, Å. J.², Schröder, T. N.¹, Goa, P. E.³ ¹<i>Norwegian University of Science and Technology, Kavli Institute for Systems Neuroscience, Trondheim, Norway</i>, ²<i>St. Olavs Hospital, Department of Radiology and Nuclear Medicine, Trondheim, Norway</i>, ³<i>Norwegian University of Science and Technology, Department of Physics, Trondheim, Norway</i></p>
11:14-11:16	L06.13	<p>A correction method for susceptibility-induced temperature measurement error during MRI-guided high intensity focused ultrasound treatment Huang, C.-F. J.¹, Kuo, L.-W.², Hwang, S.-C.³, Yao, C.³, Chang, H.³, Lin, W.-L.¹ ¹<i>Department of Biomedical Engineering, National Taiwan University, Taipei, Taiwan</i>, ²<i>Institute of Biomedical Engineering and Nanomedicine, National Health Research Institutes, Miaoli, Taiwan</i>, ³<i>MBInsight Technology Corporation, Taipei, Taiwan</i></p>
11:16-11:18	L06.14	<p>Optimizing robustness and accuracy of MR elastography for the diagnosis and follow up of glioblastoma patients Yushchenko, M.¹, Saracanie, M.¹, Amann, M.¹, Sinkus, R.², Wuerfel, J.¹,</p>

		Salameh, N. ¹ <i>¹University of Basel, Department of Biomedical Engineering, Allschwil, Switzerland, ²INSERM, Paris, France</i>
11:18-11:20	L06.15	Treatment Response Assessment Maps: Towards an Acceptance and QA Protocol Mills, M., Martin, J., Harris, L. M. <i>Brighton and Sussex NHS Trust, Medical Physics, Brighton, United Kingdom</i>
11:20-11:22	L06.16	Beyond high resolution: Denoising during image reconstruction to improve image quality Luesebrink, F. ¹ , Luesebrink, F. ² , Mattern, H. ² , Oeltze-Jafra, S. ¹ , Oeltze-Jafra, S. ³ , Speck, O. ² , Speck, O. ³ , Speck, O. ⁴ , Speck, O. ⁵ <i>¹Otto-von-Guericke University, Department of Neurology, Medicine and Digitalization, Magdeburg, Germany, ²Otto-von-Guericke University, Institute for Physics, Biomedical Magnetic Resonance, Magdeburg, Germany, ³Center for Behavioral Sciences, Magdeburg, Germany, ⁴German Center for Neurodegenerative Disease, Magdeburg, Germany, ⁵Leibniz Institute for Neurobiology, Magdeburg, Germany</i>
11:22-11:24	L06.17	High-Resolution Real-Time Phase Contrast Flow Imaging Using Sparse Sampling, k-t Regularization and Shared Velocity Encoding Greiser, A. ¹ , Schmidt, M. ¹ , Jin, N. ² , Wassmuth, R. ³ , Tillmanns, C. ³ , Forman, C. ¹ <i>¹Siemens Healthcare GmbH, Erlangen, Germany, ²Siemens Medical Solutions, Chicago, United States, ³Diagnostikum Berlin, Berlin, Germany</i>
11:24-11:26	L06.18	Efficient Sparse Image Reconstruction using $l_{1/2}$-regularization for Cardiac MRI Khan, T. ¹ , Inam, O. ² , Abid, Z. ² , Omer, H. ² , Qureshi, M. ² <i>¹Bahria University, Computer Engineering, Islamabad, Pakistan, ²COMSATS University Islamabad, Electrical & Computer Engineering, Islamabad, Pakistan</i>
11:26-11:28	L06.19	Feasibility of Compressed Sensing Reconstruction for Glutamate and Myo-inositol Detection using Optimized TE-Averaged PRESS Spectral Editing Technique in Human Brain at 3T. Hatay, G. H. ¹ , Dincer, A. ² , Ozturk-Isik, E. ¹ <i>¹Bogazici University, Institute of Biomedical Engineering, Istanbul, Turkey, ²Acibadem Mehmet Ali Aydinlar University, Department of Radiology, Istanbul, Turkey</i>
11:28-11:30	L06.20	MAP Reconstruction in Single Inversion Dual Slice Acquisition Bibiano, J. , Slawig, A., Wech, T., Köstler, H. <i>University Hospital Würzburg, Department of Diagnostic and Interventional Radiology, Würzburg, Germany</i>
11:30-11:32	L06.21	Performance of PEAR reconstruction of fMRI data using Cartesian Poisson under-sampling schemes Pinto, M., Figueiredo, P., Nunes, R. G. <i>Instituto Superior Técnico - Universidade de Lisboa, ISR-Lisboa/LARSyS and Department of Bioengineering, Lisbon, Portugal</i>
11:32-11:34	L06.22	Reconstruction of all offresonance states in DYPR bSSFP using an elliptical signal model Slawig, A. , Wech, T., Köstler, H. <i>University Hospital Würzburg, Department of Diagnostic and Interventional Radiology, Würzburg, Germany</i>
11:34-11:36	L06.23	Evaluating Compressed SENSE acceleration for quantitative mapping of longitudinal relaxation rate R1 Berg, R. ¹ , Kaczmarz, S. ¹ , Leutritz, T. ² , Preibisch, C. ¹ <i>¹Technical University of Munich, Klinikum rechts der Isar, Department of Neuroradiology, Faculty of Medicine, Munich, Germany, ²Max Planck Institute for Human Cognitive and Brain Sciences, Department of Neurophysics, Leipzig, Germany</i>
11:36-11:38	L06.24	FPGA based SENSE Coprocessor for High Speed Cardiac MR Image Reconstruction Basit, A. ¹ , Inam, O. ² , Qureshi, M. ³ , Omer, H. ³ <i>¹Khwaja Fareed University of Engineering and Information Technology, Computer Engineering, Rahim Yar Khan, Pakistan, ²Comsats University Islamabad, Electrical and Computer Engineering, Islamabad, Pakistan, ³Comsats University Islamabad, Electrical and Computer Engineering,</i>

		<i>islamabad, Pakistan</i>
11:38-11:40	L06.25	withdrawn
11:40-11:42	L06.26	<i>In vivo</i> quantitative detection of Tumour Associated Macrophages (TAM) in mice melanoma models, by relaxation measurements (T₁) at low magnetic fields with Ferumoxytol Geninatti Crich, S., Ruggiero, M. R. , Baroni, S., Rapisarda, S., Aime, S. <i>University of Torino, Torino, Italy</i>
11:42-11:44	L06.27	Solution pH affects the sodium triple-quantum signal of bovine serum albumin Kleimaier, D. , Hu, R., Schad, L. R. <i>Heidelberg University, Computer Assisted Clinical Medicine, Mannheim, Germany</i>
11:44-11:46	L06.28	Longitudinal (T₁) relaxation times of 1-¹³C glycogen at 3T and 11.7T Jonuscheit, M. , Rothe, M., Wickrath, F., Markgraf, D., Roden, M., Hwang, J.-H. <i>Institute for Clinical Diabetology, German Diabetes Center at Heinrich Heine University, Leibniz Institute for Diabetes Research, Düsseldorf, Germany</i>
11:46-11:48	L06.29	Investigation on the effects of the macromolecular signals in quantification of high-field and short-echo-time <i>in vivo</i> proton magnetic resonance spectroscopy Yoo, C.-H. ¹ , Baek, H.-M. ² , Woo, D.-C. ³ , Choe, B.-Y. ¹ ¹ <i>The Catholic University of Korea, Seoul, South Korea</i> , ² <i>Gachon University, Department of Health Sciences and Technology, Incheon, South Korea</i> , ³ <i>Asan Medical Center, Asan Institute for Life Sciences, Seoul, South Korea</i>
12:30-13:30 Room 2 - Van Weelde Zaal		Industry Lunch Symposium
13:50-15:20 Room 1 - Willem Burger Zaal	I25	Accelerated MRI
	Moderation:	Nunes, R., Portugal van der Zwaag, W., Netherlands
13:50-14:20	I25.01	Parallel Imaging Blaimer, M. <i>Fraunhofer Institute for Integrated Circuits (IIS), Magnetic Resonance and X-Ray Imaging, Würzburg, Germany</i>
14:20-14:50	I25.02	SMS Imaging, CAIPIRINHA, and Multi-Slice Excitation Schulz, J. <i>Radboud University Nijmegen, Donders Institute for Brain, Cognition and Behaviour, Nijmegen, Netherlands</i>
14:50-15:20	I25.03	Sparse Imaging Kozerke, S. <i>University and ETH Zurich, Zurich, Switzerland</i>
13:50-15:20 Room 2 - Van Weelde Zaal	S19	Gadolinium-free Imaging: Why & How?
	Moderation:	Coolen, B., Netherlands Kaczmarz, S., Munich, Germany
13:50-14:00	S19.01	Quantifying the transchelation of Gd ions from MR contrast agents to glycosaminoglycans using time-resolved MR relaxometry Schuenke, P. ¹ , Werner, P. ² , Taupitz, M. ³ , Schröder, L. ¹ ¹ <i>Leibniz-Forschungsinstitut für Molekulare Pharmakologie (FMP), Berlin, Germany</i> , ² <i>Charité - Universitätsmedizin Berlin, BIOQIC, Berlin, Germany</i> , ³ <i>Charité - Universitätsmedizin Berlin, Department of Radiology, Berlin, Germany</i>

14:00-14:10	S19.02	<p>Gadolinium retention in RBCs and WBCs from human and murine blood treated with GBCAs</p> <p>Gianolio, E., Di Gregorio, E., Furlan, C., Atlante, S., Stefania, R., Aime, S. <i>University of Torino, Molecular Biotechnologies and Health Science, Torino, Italy</i></p>
14:10-14:20	S19.03	<p>Combining qMRI parameters for Gd-free evaluation of Gd-enhanced lesions</p> <p>Berman, S.¹, Backner, Y.², Levin, N.², Petrou, P.³, Karussis, D.³, Mezer, A.⁴ <i>¹The Hebrew University of Jerusalem, The Edmond and Lily Safra Center for Brain Science., Jerusalem, Israel, ²Hadassah Hebrew University Hospital, MS Center and the fMRI unit, Jerusalem, Israel, ³Hadassah Hebrew University Hospital, MS Center, Jerusalem, Israel, ⁴The Hebrew University of Jerusalem, The Edmond and Lily Safra Center for Brain Science, Jerusalem, Israel</i></p>
14:20-14:30	S19.04	<p>Voxelwise correlation between vascular parameters obtained with ASL and DSC in non-enhancing glioma</p> <p>Warnert, E. A. H.¹, Incekara, F.¹, Vincent, A. J. P. E.², van den Bent, M. J.³, French, P. J.³, Dubbink, H. J.⁴, Kros, J. M.⁴, Hernandez-Tamames, J. A.¹, Smits, M.¹ <i>¹Erasmus MC, Radiology & Nuclear Medicine, Rotterdam, Netherlands, ²Erasmus MC, Neurosurgery, Rotterdam, Netherlands, ³Erasmus MC, Neurology, Rotterdam, Netherlands, ⁴Erasmus MC, Pathology, Rotterdam, Netherlands</i></p>
14:30-14:40	S19.05	<p>Recent advances in flow-based arterial spin labeling techniques: comparing velocity selective, acceleration selective, multiple-velocity selective, velocity-selective inversion and pseudo-continuous arterial spin labeling</p> <p>Franklin, S.¹, Monteiro Paschoal, A.¹, Bos, C.², van Osch, M.¹, Schmid, S.¹ <i>¹Leiden University Medical Center, C.J. Gorter Center for High Field MRI, Leiden, Netherlands, ²University Medical Center Utrecht, Center for Image Sciences, Utrecht, Netherlands</i></p>
14:40-14:50	S19.06	<p>Clinical plasma volume expanders as potential MRI-CEST blood pool agents for tumor perfusion imaging</p> <p>Consolino, L.¹, Irrera, P.², Anemone, A.³, Romdhane, F.³, Aime, S.³, Longo, D.^{4,5} <i>¹University of Torino, Dept of Molecular Biotechnologies and Health Sciences, Torino, Italy, ²University of Campania "Luigi Vanvitelli", Torino, Italy, ³University of Torino, Dept of Molecular Biotechnologies and Health Sciences, Turin, Italy, ⁴National Research Council of Italy (CNR), Institute of Biostructures and Bioimaging (IBB), Turin, Italy, ⁵National Research Council of Italy (CNR), Institute of Biostructures and Bioimaging (IBB), Torino, Italy</i></p>
14:50-15:00	S19.07	<p>Hyperpolarized ¹²⁹Xe dissolved-phase magnetic resonance imaging detects heterogeneity of lung perfusion in paediatric cystic fibrosis patients</p> <p>Kern, A. L.¹, Voskrebenezv, A.¹, Gutberlet, M.¹, Pöhler, G.¹, Wacker, F.¹, Hohlfeld, J.², Dittrich, A.-M.³, Vogel-Claussen, J.¹ <i>¹Hannover Medical School, Institute for Diagnostic and Interventional Radiology, Hannover, Germany, ²Fraunhofer Institute for Toxicology and Experimental Medicine, Clinical Airway Research, Hannover, Germany, ³Hannover Medical School, Clinic for Paediatric Pneumology and Neonatology, Hannover, Germany</i></p>
15:00-15:10	S19.08	<p>Non-invasive assessment of CSF movement in paravascular spaces of the entire human brain</p> <p>Hirschler, L.¹, Lønning, K.², Gottwald, L.³, van Osch, M. J.¹, Caan, M. W.⁴ <i>¹Leiden University Medical Center, Radiology, Leiden, Netherlands, ²Netherlands Cancer Institute, Amsterdam, Netherlands, ³Amsterdam University Medical Center, Radiology, Amsterdam, Netherlands, ⁴Amsterdam University Medical Center, Biomedical Engineering & Physics, Amsterdam, Netherlands</i></p>
15:10-15:20	S19.09	<p>Test-retest reliability of perfusion assessment using BOLD delay</p> <p>Khalil, A.¹, Tanritanir, A. C.¹, Grittner, U.², Villringer, A.³, Fiebach, J.¹, Mекle, R.¹ <i>¹Charité – Universitätsmedizin Berlin, Center for Stroke Research Berlin, Berlin, Germany, ²Charité – Universitätsmedizin Berlin, Institute of Biometry and Clinical Epidemiology, Berlin, Germany, ³Max Planck Institute for Human Cognitive and Brain Sciences, Department of Neurology, Leipzig, Germany</i></p>

13:50-15:20 Room 3 - Ruys & van Rijckevorsel Zaal	S20	New Technical Applications in Neuroradiology
	Moderation:	Figueiredo, P., Portugal Ozturk Isik, E., Turkey
13:50-14:00	S20.02	Fast Field-Cycling MRI identifies ischaemic stroke at ultra-low magnetic field strength Ross, J.¹ , Broche, L. ¹ , MacLeod, M. J. ² , Lurie, D. ¹ <i>¹University of Aberdeen, Aberdeen Biomedical Imaging Centre, Aberdeen, United Kingdom, ²Aberdeen Royal Infirmary, Acute Stroke Unit, Aberdeen, United Kingdom</i>
14:00-14:10	S20.03	Multiple Quantum Filtered Sodium MRI as a Marker for IDH Mutational Status of Cerebral Gliomas Worthoff, W. A.¹ , Shymanskaya, A. ² , Stoffels, G. ¹ , Lindemeyer, J. ¹ , Neumaier, B. ³ , Lohmann, P. ¹ , Galldiks, N. ⁴ , Langen, K.-J. ¹ , Shah, N. J. ¹ <i>¹Forschungszentrum Jülich, Institute of Neuroscience and Medicine - 4, Jülich, Germany, ²Forschungszentrum Jülich, Institute of Neuroscience and Medicine - 11, Jülich, Germany, ³Forschungszentrum Jülich, Institute of Neuroscience and Medicine - 5, Jülich, Germany, ⁴Forschungszentrum Jülich, Institute of Neuroscience and Medicine - 3, Jülich, Germany</i>
14:10-14:20	S20.04	Multiscale fMRI entropy declines with age and is greater in women de Vries, C.¹ , Staff, R. ² , Waiter, G. ¹ , Sokunbi, M. ³ , Sandu, A. ¹ , Murray, A. ¹ <i>¹University of Aberdeen, Aberdeen Biomedical Imaging Centre, Aberdeen, United Kingdom, ²NHS Grampian, Imaging Physics, Aberdeen, United Kingdom, ³De Montfort University, Faculty of Health and Life Sciences, Leicester, United Kingdom</i>
14:20-14:30	S20.05	Quantitative Susceptibility Mapping (QSM): Echo time dependence in the human and nonhuman primate brain Dadarwal, R. , Moussavi, A., Boretius, S. <i>German Primate Center, Functional Imaging Laboratory, Goettingen, Germany</i>
14:30-14:40	S20.06	qMRI grey matter microstructural changes predict healthy aging and identify Multiple Sclerosis Erramuzpe, A.¹ , Schurr, R. ² , Mezer, A. ² <i>¹Hebrew University of Jerusalem, ELSC, Jerusalem, Israel, ²Hebrew University of Jerusalem, ELSC, Jerusalem, Israel</i>
14:40-14:50	S20.07	Resting state BOLD signal, functional connectivity, and neural dynamics modeling Archila-Meléndez, M. E. , Sorg, C., Preibisch, C. <i>Technische Universität München, Department of Diagnostic and Interventional Neuroradiology, Klinikum rechts der Isar, Fakultät für Medizin, Munich, Germany</i>
14:50-15:00	S20.08	A BIDS compliant automated CSD fiber tracking pipeline for presurgical white matter mapping Radwan, A.¹ , Blommaert, J. ² , Kovacs, S. ³ , Peeters, R. ¹ , De Vleeschouwer, S. ⁴ , Dupont, P. ⁵ , Theys, T. ⁴ , Sunaert, S. ¹ <i>¹KU Leuven, Department of Imaging & Pathology, Translational MRI, Leuven, Belgium, ²KU Leuven, Department of Oncology, Gynaecological Oncology, Leuven, Belgium, ³UZ Leuven, Department of Radiology, Leuven, Belgium, ⁴KU Leuven, Department of Neurosciences, Research group experimental neurosurgery and neuroanatomy, Leuven, Belgium, ⁵KU Leuven, Department of Neurosciences, Laboratory for Cognitive Neurology, Leuven, Belgium</i>
15:00-15:10	S20.09	Characterization of in utero brain development after fetal surgery using super-resolution reconstruction Payette, K.¹ , Tuura, R. ² , Meuli, M. ³ , Jakab, A. ⁴ <i>¹University Children's Hospital Zurich, Center for MR Research, Zurich, Switzerland, ²University Children's Hospital Zurich, Center for MR-Research, Zurich, Switzerland, ³University Children's Hospital Zurich, Spina Bifida Center, Zurich, Switzerland, ⁴University Children's Hospital Zurich, Center for MR-Research, Zurich, Switzerland</i>

15:10-15:20		Effect of lactate administration on cerebral blood flow during hypoglycaemia van Meijel, L. ¹ , Wiegers, E. ² , van Asten, J. ² , Tack, C. ¹ , Heerschap, A. ² , van der Graaf, M. ² , de Galan, B. ² <i>¹Radboud University Medical Center, Internal Medicine, Nijmegen, Netherlands, ²Radboud University Medical Center, Radiology and Nuclear Medicine, Nijmegen, Netherlands</i>
13:50-15:20 Room 4 - Plate & Van der Vorm Zaal	S21	Quantitative MRI
	Moderation:	Fritz, F. J., Maastricht, Netherlands Tosetti, M., Italy
13:50-14:10	S21.01	Quantification of sodium T1 in abdominal tissues at 3 Tesla. Gomolka, R. , Meier, A., Ciritsis, A., Rossi, C. <i>University Hospital Zurich, Department of Diagnostic and Interventional Radiology, Zurich, Switzerland</i>
14:10-14:20	S21.02	A simplified approach to quantification of multiple contrasts from time-encoded ASL Vaclavu, L. ¹ , Falcon, C. ² , Domingo, J. ² , Montesinos Suárez de la Vega, P. ³ , van Osch, M. J. ¹ <i>¹Leiden University Medical Center, Department of Radiology, Leiden, Netherlands, ²BarcelonaBeta Brain Research Center, Barcelona, Spain, ³Philips Iberia, Madrid, Spain</i>
14:20-14:30	S21.03	MESMERISED: Super-accelerated 7T STEAM imaging for quantitative T1 and diffusion MRI Fritz, F. J. , Poser, B. A., Roebroek, A. <i>Maastricht University, Cognitive Neuroscience, Maastricht, Netherlands</i>
14:30-14:40	S21.04	Generalized Model-based Reconstruction for Quantitative MRI using the Bloch-Equations Scholand, N. , Wang, X., Rosenzweig, S., Uecker, M. <i>University Medical Center Göttingen, Institute for Diagnostic and Interventional Radiology, Göttingen, Germany</i>
14:40-14:50	S21.05	Accuracy and Repeatability study of MAGiC and MR Fingerprinting Núñez González, L. ¹ , Kotek, G. ¹ , Schulte, R. ² , Gómez, P. ³ , Vogel, M. ⁴ , Buonincontri, G. ⁵ , Hernández-Tamames, J. A. ¹ <i>¹Erasmus Medical Center, Radiology & Nuclear Medicine, Rotterdam, Netherlands, ²General Electric, GE Global Research, Munich, Germany, ³Technische Universität München, Computer Science, Munich, Germany, ⁴General Electric, GE Healthcare, Hoevelaken, Netherlands, ⁵IMAGO7 Foundation, Pisa, Italy</i>
14:50-15:00	S21.06	Accuracy of the T1 measurements with Variable Flip Angle in vivo and in vitro Lavini, C. , Akkerman, E. M. <i>Amsterdam University Medical Centers, Radiology and Nuclear Medicine, Amsterdam, Netherlands</i>
15:00-15:10	S21.07	A bi-compartmental model to resolve R2* relaxometry Michaud, M. , Arribarat, G., Boucher, S., Péran, P. <i>Université Paul Sabatier/ Inserm-ToNIC, Toulouse, France</i>
15:10-15:20	S21.08	Estimation of microstructure parameter from ex-vivo data using realistic WM models hedouin, r. , Chan, K.-s., metere, r., marques, j. <i>Donders Institute, Nijmegen, Netherlands</i>
13:50-14:50 The Stage	L07	Machine Learning, Image Analysis & their Application
	Moderation:	Cruz, G., United Kingdom Poot, D., Netherlands
13:50-13:52	L07.01	Deep Learning for classification of Alzheimer's Disease: Is MRI pre-processing required?

		Linders, J. , Venkatraghavan, V., Niessen, W. J., Bron, E. E. <i>Erasmus MC, Biomedical Imaging Group Rotterdam, Department of Radiology & Nuclear Medicine, Rotterdam, Netherlands</i>
13:52-13:54	L07.02	Voxelwise harmonisation of FA on a cohort of 605 healthy subjects using ComBat: an exploratory study Siqueira Pinto, M. ¹ , Paolella, R. ² , Billiet, T. ² , Van Dyck, P. ¹ , Guns, P.-J. ³ , Jeurissen, B. ⁴ , Ribbens, A. ² , J den Dekker, A. ⁴ , Sijbers, J. ⁴ ¹ <i>Antwerp University Hospital, Antwerp, Belgium</i> , ² <i>Icometrix, Leuven, Belgium</i> , ³ <i>University of Antwerp, Pharmacology Department, Antwerp, Belgium</i> , ⁴ <i>University of Antwerp, imec Vision Lab, Antwerp, Belgium</i>
13:54-13:56	L07.03	Spurious group effects may be caused by increased connectivity between odd or even slices in resting state fMRI data Yakupov, R. , Metzger, C., Cardenas-Blanco, A., Duezel, E. <i>DZNE, Magdeburg, Germany</i>
13:56-13:58	L07.04	Spatial and temporal connectivity between networks from low and high dimensionality independent component analysis Tudela, R. ¹ , Sala-Llonch, R. ² , Muñoz-Moreno, E. ³ , Soria, G. ³ ¹ <i>CIBER-BBN, Barcelona, Spain</i> , ² <i>University of Barcelona, Department of Biomedicine, Barcelona, Spain</i> , ³ <i>Institut d'Investigacions Biomèdiques August Pi I Sunyer (IDIBAPS), Experimental 7T MRI Unit, Barcelona, Spain</i>
13:58-14:00	L07.05	Ultra-high temporal resolution on the inversion recovery curve: new insight into T1 relaxometry of the human brain Oros-Peusquens, A.-M. , Weglage, A., Shah, N. J. <i>Research Centre Juelich, INM-4, Juelich, Germany</i>
14:00-14:02	L07.06	Fully Convolutional Neural Network Segmentation of Multiple Sclerosis Lesions using T1 and T2* Maps Schnurr, A.-K. ¹ , Hermann, I. ¹ , Schmidt, R. ² , Gass, A. ² , Zöllner, F. G. ¹ , Schad, L. R. ¹ ¹ <i>Heidelberg University, Computer Assisted Clinical Medicine - Medical Faculty Mannheim, Mannheim, Germany</i> , ² <i>Heidelberg University, Department of Neurology - Medical Faculty Mannheim, Mannheim, Germany</i>
14:02-14:04	L07.07	PSIR segmentation robustness at 7T: a travelling head study Mougin, O. ¹ , Clarke, W. ² , Rua, C. ³ , Driver, I. ⁴ , Morgan, A. ⁵ , Wise, R. ⁴ , Clare, S. ² , Rodgers, C. ³ , Bowtell, R. ¹ ¹ <i>University of Nottingham, SPMIC, Nottingham, United Kingdom</i> , ² <i>University of Oxford, Wellcome Centre for Integrative Neuroimaging, Nuffield Department of Clinical Neurosciences, Oxford, United Kingdom</i> , ³ <i>University of Cambridge, Wolfson Brain Imaging Centre, Department of Clinical Neurosciences, Cambridge, United Kingdom</i> , ⁴ <i>Cardiff University, Cardiff University Brain Research Imaging Centre, School of Psychology, Cardiff, United Kingdom</i> , ⁵ <i>University of Glasgow, Institute of Neuroscience & Psychology, Glasgow, United Kingdom</i>
14:04-14:06	L07.08	Towards continuous learning for glioma segmentation with elastic weight consolidation van Garderen, K. , van der Voort, S., Incekara, F., Smits, M., Klein, S. <i>Erasmus MC, Radiology and Nuclear Medicine, Rotterdam, Netherlands</i>
14:06-14:08	L07.09	Multi-modal segmentation with missing MR sequences using pre-trained shared representation networks van Garderen, K. , Smits, M., Klein, S. <i>Erasmus MC, Radiology and Nuclear Medicine, Rotterdam, Netherlands</i>
14:08-14:10	L07.10	Fast and accurate long-axis cine cardiac MRI segmentation using deep learning Tiago, C. ¹ , Veta, M. ² , Breeuwer, M. ³ ¹ <i>University of Lisbon, Biomedical Engineering and Biophysics, Lisbon, Portugal</i> , ² <i>Eindhoven University of Technology, Biomedical Engineering - Medical Image Analysis, Eindhoven, Netherlands</i> , ³ <i>Philips Healthcare, MR Clinical Science, Best, Netherlands</i>
14:10-14:12	L07.11	Landmark-guided Hip Segmentation in 3D MR Images of a Large-Scale Cohort Study Fischer, M. ¹ , Schwartz, M. ¹ , Klinger, C. ² , Yang, B. ³ , Notohamiprodjo, M. ² , Schick, F. ¹ ¹ <i>University Hospital Tübingen, Section on Experimental Radiology, Department of Radiology, Tübingen, Germany</i> , ² <i>University Hospital Tübingen, Diagnostic</i>

		<i>and Interventional Radiology, Tübingen, Germany, ³University of Stuttgart, Institute of Signal Processing and System Theory, Stuttgart, Germany</i>
14:12-14:14	L07.12	Automated Prostate multiregional segmentation in Magnetic Resonance using deeply supervised Convolutional Neural Networks López-González, R. ^{1,2} , Venugopal, V. ³ , Jimenez-Pastor, A. ² , Barnwal, M. ⁴ , Mahajan, V. ⁴ , Alberich-Bayarri, Á. ⁵ , Martí-Bonmatí, L. ⁶ ¹ QUIBIM, Research and development, Valencia, Spain, ² QUIBIM, Research and Development, Valencia, Spain, ³ CARING, Radiology, New Delhi, India, ⁴ CARING, New Delhi, India, ⁵ QUIBIM, Management, Valencia, Spain, ⁶ Hospital Universitario y Politécnico La Fe, Radiology, Valencia, Spain
14:14-14:16	L07.13	Glomerular quantification from undersampled data using compressed sensing reconstructions Ilicak, E. , Schad, L. R., Chacon-Caldera, J. <i>Heidelberg University, Medical Faculty Mannheim, Computer Assisted Clinical Medicine, Mannheim, Germany</i>
14:16-14:18	L07.14	Texture Analysis as a Tool for Liver Steatosis Estimation Dezortova, M. , Knoppova, S., Sedivy, P., Burian, M., Hajek, M. <i>Institute for Clinical and Experimental Medicine, MR-Unit, Dept Diagnostic and Interventional Radiology, Prague, Czech Republic</i>
14:18-14:20	L07.15	Non-uniform Fourier-Decomposition MRI Bondesson, D. ¹ , Schneider, M. ¹ , Gaaß, T. ² , Kühn, B. ³ , Bauman, G. ⁴ , Dietrich, O. ¹ , Dinkel, J. ¹ ¹ University Hospital, LMU Munich, Department of Radiology, Munich, Germany, ² Siemens Healthcare Pty Ltd, Bowen Hills, Australia, ³ Siemens Healthcare GmbH, Erlangen, Germany, ⁴ University of Basel Hospital, Division of Radiological Physics, Department of Radiology, Basel, Switzerland
14:20-14:22	L07.16	Model Selection In Quantifying Hemodynamic Parameters Using DCE-MRI Zhao, M. Y. , Chappell, M. A. <i>University of Oxford, Institute of Biomedical Engineering, Oxford, United Kingdom</i>
14:22-14:24	L07.17	Comparison between the Phase Contrast MRI and the Lattice Boltzmann Method of Computational Fluid Dynamics for a turbulent flow in vitro using an aortic valve phantom Fucik, R. ¹ , Paus, P. ¹ , Eichler, P. ¹ , Klinkovsky, J. ¹ , Galabov, R. ² , Tintera, J. ² , Rydlo, J. ² ¹ Czech Technical University, FNSPE, Prague, Czech Republic, ² Institute for Clinical and Experimental Medicine, Prague, Czech Republic
14:24-14:26	L07.18	Retrospective deep learning based motion correction from complex-valued imaging data Kuestner, T. ¹ , Mo, K. ² , Yang, B. ² , Schick, F. ³ , Gatidis, S. ⁴ , Armanious, K. ² ¹ King's College London, London, United Kingdom, ² University of Stuttgart, Institute of Signal Processing and System Theory, Stuttgart, Germany, ³ University Hospital of Tübingen, Section on Experimental Radiology, Tübingen, Germany, ⁴ University Hospital of Tübingen, Department of Radiology, Tübingen, Germany
14:26-14:28	L07.19	Radial MR Image Reconstruction through Deep Learning Arshad, M. , Qureshi, M., Khattak, I., Omer, H. <i>COMSATS University Islamabad, Electrical & Computer Engineering, Islamabad, Pakistan</i>
14:28-14:30	L07.20	withdrawn
14:30-14:32	L07.21	Magnetic Resonance Angiography Image Restoration by Super Resolution Based on Deep Learning Kitazaki, S. ¹ , Kawakita, M. ² , Jitsumatsu, Y. ¹ , Kuhara, S. ³ , Hiwatashi, A. ⁴ , Takeuchi, J. ¹ ¹ Kyushu University, Graduate School of Information Science and Electrical Engineering, Fukuoka City, Japan, ² Nagoya University, Graduate School of Informatics, Nagoya City, Japan, ³ Kyorin University, Department of Medical Radiological Technology, Tokyo, Japan, ⁴ Kyushu University, Faculty of Medical Science, Fukuoka City, Japan
14:32-14:34	L07.22	withdrawn

14:34-14:36	L07.23	Adaptive Noise Reduction in Parallel Magnetic Resonance Imaging using SVD based Filtering in Wavelet Domain Inam, O., Jarral, H., Omer, H., Qureshi, M. <i>COMSATS University Islamabad, Electrical & Computer Engineering, Islamabad, Pakistan</i>
14:36-14:38	L07.24	Deep Learning Based MR Image Quality Assessment and Artifact Localization for Application in Clinical Practice Schwartz, M. ^{1,2} , Wilhelm, Y. ² , Liu, Y. ² , Martirosian, P. ¹ , Yang, B. ² , Schick, F. ¹ , Gatidis, S. ³ , Küstner, T. ¹ ¹ <i>University Hospital of Tübingen, Section on Experimental Radiology, Tübingen, Germany</i> , ² <i>University of Stuttgart, Institute of Signal Processing and System Theory, Stuttgart, Germany</i> , ³ <i>University Hospital Tübingen, Diagnostic and Interventional Radiology, Tübingen, Germany</i>
14:38-14:40	L07.25	Non-Local Means noise filtering (NLMF) improves Hyperpolarized ¹³C-pyruvate imaging PSNR compared to linear minimum mean square error (LLMSE) Hansen, E. S. S. , Laustsen, C. <i>Aarhus University, MR Research Centre, Århus N, Denmark</i>
14:40-14:42	L07.26	An application of the automated brain segmentation for the evaluation of localization reliability of <i>in vivo</i> magnetic resonance spectroscopy: a preliminary study Yoo, C.-H. ¹ , Baek, H.-M. ² , Choe, B.-Y. ¹ ¹ <i>The Catholic University of Korea, Seoul, South Korea</i> , ² <i>Gachon University, Department of Health Sciences and Technology, Incheon, South Korea</i>
14:42-14:44	L07.27	Big Data Curation for Deep Learning in MRI: The MALIMAR Project as an exemplar Barfoot, T. ¹ , Doran, S. ² , Messiou, C. ³ , Kaiser, M. ¹ , Glocker, B. ⁴ , Dou, Q. ⁴ , Rockall, A. ⁵ ¹ <i>The Royal Marsden NHS Foundation Trust, Sutton, United Kingdom</i> , ² <i>The Institute of Cancer Research, Sutton, United Kingdom</i> , ³ <i>The Royal Marsden NHS Foundation Trust, London, United Kingdom</i> , ⁴ <i>Imperial College London, London, United Kingdom</i> , ⁵ <i>Imperial College Healthcare NHS Trust, London, United Kingdom</i>
14:44-14:46	L07.28	Radiomics features for use in dementia diagnosis Theodoridis, T. , Starmans, M. P., Klein, S., Bron, E. E. <i>Erasmus MC, Biomedical Imaging Group Rotterdam, Rotterdam, Netherlands</i>
14:46-14:48	L07.29	Significantly higher image qualities of the sampling density compensation method and L1 total-variation regularised reconstruction than the image quality of the conjugate gradient method for Cartesian <i>k</i>-space Chen, S.-C. ¹ , Lin, J.-M. ² ¹ <i>Madou Sin Lau Hospital, Department of Medical Imaging, Tainan, Taiwan</i> , ² <i>University of Cambridge Development and Alumni Relations, 1 Quayside, Bridge Street, Cambridge CB5 8AB, United Kingdom</i>
15:40-16:40 Room 1 - Willem Burger Zaal	I26	Machine Learning for Reconstruction
	Moderation:	Bustin, A., United Kingdom Knoll, F., New York, United States
15:40-16:10	I26.01	Reconstruction with Machine Learning: Comparison to Existing Methods and Challenges Uecker, M. <i>University Medical Center Göttingen, Diagnostic and Interventional Radiology, Göttingen, Germany</i>
16:10-16:40	I26.02	Neural Networks for Undersampled MR Reconstruction Schlemper, J. <i>Imperial College London, Department of Computing, London, United Kingdom</i>
15:40-17:10 Room 2 - Van Weelde Zaal	S22	Improving Functional MRI

	Moderation:	Asllani, I., United States Tosetti, M., Italy
15:40-15:50	S22.01	Quantitative fMRI to investigate the energetics of brain plasticity in the healthy and MS brain Patitucci, E. , Stickland, R., Chandler, H., Germuska, M., Foster, C., Khot, S., Saxena, N., Tomassini, V., Wise, R. G. <i>Cardiff University, CUBRIC - School of Psychology, Cardiff, United Kingdom</i>
15:50-16:00	S22.02	Spiral fMRI using the Gradient Impulse Response Function for Trajectory Prediction Graedel, N. N. ¹ , Kasper, L. ² , Engel, M. ² , Nussbaum, J. ² , Wilm, B. J. ² , Pruessmann, K. P. ² , Vannesjo, S. J. ¹ <i>¹University of Oxford, Wellcome Centre for Integrative Neuroimaging, FMRIB, Oxford, United Kingdom, ²ETH Zurich and University of Zurich, Institute for Biomedical Engineering, Zurich, Switzerland</i>
16:00-16:10	S22.03	The effect of slice saturation in 3D TFEPI SS-SI VASO for 7T fMRI applications Oliveira, I. A. F. d. , Zwaag, W. v. d., Dumoulin, S. O., Siero, J. C. W. <i>Spinoza Centre for Neuroimaging, Amsterdam, Netherlands</i>
16:10-16:20	S22.04	withdrawn
16:20-16:30	S22.05	The influence of short breath-hold periods on Blood-Oxygen-Level-Dependent (BOLD) MRI signal Zerweck, L. , Hauser, T.-K., Klose, U. <i>Eberhard Karls University Tübingen, Department of Neuroradiology, Tübingen, Germany</i>
16:30-16:40	S22.06	Preliminary results of functional line-scanning in humans: submillimeter, subsecond resolution evoked responses Raimondo, L. ¹ , Knapen, T. ¹ , Oliveira, I. A. F. d. ¹ , Yu, X. ² , van der Zwaag, W. ¹ , C.W Siero, J. ¹ <i>¹Spinoza Centre for Neuroimaging, Amsterdam, Netherlands, ²Max Plank Institute for Biological Cybernetics, Tuebingen, Germany</i>
16:40-16:50	S22.07	Differential R2'-mapping of baseline and visual stimulus states in the human brain using streamlined-qBOLD Arzanforoosh, F. ¹ , Kotek, G. ² , Berman, A. ³ , Hernandez-Tamames, J. A. ⁴ , Smits, M. ⁵ , Warnert, E. A. H. ⁵ <i>¹Erasmus MC, Radiology Department, Rotterdam, Netherlands, ²Erasmus mc, Rotterdam, Netherlands, ³Harvard Medical School, Charlestown, United States, ⁴Erasmus MC, Radiology & Nuclear Medicine, Rotterdam, Netherlands, ⁵Erasmus MC, Radiology & Nuclear Medicine, Rotterdam, Netherlands</i>
16:50-17:00	S22.08	High-frequency fluctuations in the brainstem using resting-state fMRI - a feasibility study van den Kerkhof, M. ¹ , Jansen, J. ¹ , Canjels, L. ¹ , van Oostenbrugge, R. ² , Poser, B. ³ , Backes, W. ¹ <i>¹Maastricht University Medical Center, School for Mental Health & Neuroscience, Radiology & Nuclear Medicine, Maastricht, Netherlands, ²Maastricht University Medical Center, School for Mental Health & Neuroscience, Neurology, Maastricht, Netherlands, ³Maastricht University, Maastricht Brain Imaging Center, Faculty of Psychology and Neuroscience, Maastricht, Netherlands</i>
17:00-17:10	S22.09	Thermonoxious stimulation evokes BOLD responses within area 3a of human primary somatosensory cortex Sanchez Panchuelo, R. ¹ , Eldeghaidy, S. ¹ , McGLone, F. ² , Favorov, O. ³ , Francis, S. ¹ <i>¹University of Nottingham, Sir Peter Mansfield Imaging Centre, Nottingham, United Kingdom, ²Liverpool John Moore University, Liverpool, United Kingdom, ³University of North Caroline at Chapel Hill, Chapel Hill, United States</i>
15:40-17:10 Room 3 - Ruys & van Rijckevorsel Zaal	S23	Spectroscopy Applications

	Moderation:	Viola, A., France Arus, C., Spain
15:40-15:50	S23.01	Correlation between <i>in vivo</i> hyperpolarized [1-¹³C]pyruvate and [¹⁸F]-FDG PET measurements of prostate cancer metastasis xenografts in mice. van Heijster, F. , Heskamp, S., Veltien, A., Boerman, O., Heerschap, A. <i>Radboud University Medical Center, Radiology and Nuclear Medicine, Nijmegen, Netherlands</i>
15:50-16:00	S23.02	Evolution of glial and axonal changes in human brain tissue after ischemic stroke investigated with diffusion-weighted magnetic resonance spectroscopy at 3 T Genovese, G.¹ , Diaz, B. ² , Marjanska, M. ³ , Valabregue, R. ¹ , Ronen, I. ⁴ , Lehericy, S. ¹ , Rosso, C. ¹ , Branzoli, F. ¹ <i>¹Institut du Cerveau et de la moelle epiniere (ICM), Centre de NeuroImagerie de Recherche (CENIR), Paris, France, ²Hôpital Pitié-Salpêtrière, Service des Urgences Cérébrovasculaires, Paris, France, ³University of Minnesota, Center for Magnetic Resonance Research and Department of Radiology, Minneapolis, United States, ⁴Leiden University Medical Center, C. J. Gorter Center for High Field MRI, Department of Radiology, Leiden, Netherlands</i>
16:00-16:10	S23.03	T₁ Relaxation Times of Macromolecular Resonances for Grey and White Matter Voxels in Human Brain at 9.4 T Murali-Manohar, S.¹ , Wright, A. M. ¹ , Henning, A. ² <i>¹Max Planck Institute for Biological Cybernetics, MRZ, Tuebingen, Germany, ²UT Southwestern Medical Center, Advanced Imaging Research Center, Dallas, Texas, United States</i>
16:10-16:20	S23.04	The concentrations of glutamate, glutamine, aspartate and GABA during continuous visual stimulation at 3 Tesla Manzhurtsev, A.¹ , Yakovlev, A. ² , Menshchikov, P. ³ , Ublinskiy, M. ⁴ , Semenova, N. ¹ , Akhadov, T. ⁴ <i>¹Emanuel Institute of Biochemical Physics of the Russian Academy of Sciences, Moscow, Russian Federation, ²Moscow State University, Moscow, Russian Federation, ³Semenov Institute of Chemical Physics of the Russian Academy of Sciences, Moscow, Russian Federation, ⁴Clinical and Research Institute of Emergency Pediatric Surgery and Traumatology, Moscow, Russian Federation</i>
16:20-16:30	S23.05	The origin of ³¹P MR signal at 5.35 ppm in patients with critical limb ischemia Sedivy, P.¹ , Dezortova, M. ¹ , Drobny, M. ¹ , Dubsy, M. ² , Hajek, M. ¹ <i>¹Institute for Clinical and Experimental Medicine, MR unit, Prague, Czech Republic, ²Institute for Clinical and Experimental Medicine, Diabetology Department, Prague, Czech Republic</i>
16:30-16:40	S23.06	A 1H-HRMAS study of the effects of a vanadium derivative on the metabolism of different animal tissues to unveil its insulin-mimetic capacity Metelo, A. M. ¹ , Arias-Ramos, N. ² , Castro, M. ¹ , López-Larrubia, P.² <i>¹University of Coimbra, Coimbra, Portugal, ²Instituto de Investigaciones Biomédicas, CSIC/UAM, Madrid, Spain</i>
16:40-16:50	S23.07	Effect of trigger delay on human cardiac ³¹P MR spectra at 7T Wampl, S.¹ , Körner, T. ¹ , Meyerspeer, M. ¹ , Moser, E. ¹ , Trattinig, S. ² , Schmid, A. I. ¹ <i>¹Medical University of Vienna, Center for Medical Physics and Biomedical Engineering, Vienna, Austria, ²Medical University of Vienna, Department of Biomedical Imaging and Image-guided Therapy, Vienna, Austria</i>
16:50-17:00	S23.08	Water and lipid T₂ are associated with hepatic lipid content Veeraiah, P.¹ , Roumans, K. H. M. ² , Brouwers, M. C. G. J. ³ , Hesselink, M. K. C. ² , Wildberger, J. E. ⁴ , Schrauwen, P. ² , Lindeboom, L. ¹ , Schrauwen-Hinderling, V. B. ¹ <i>¹Departments of Radiology and Nuclear Medicine, Nutrition and Movement Sciences, NUTRIM School for Nutrition and Translational Research in Metabolism, Maastricht University Medical Center, Maastricht, Netherlands, ²Nutrition and Movement Sciences, NUTRIM School for Nutrition and Translational Research in Metabolism, Maastricht University Medical Center, Maastricht, Netherlands, ³Internal medicine, NUTRIM School for Nutrition and Translational Research in Metabolism, Maastricht University Medical Center, Maastricht, Netherlands, ⁴Department of Radiology and Nuclear Medicine, NUTRIM School for Nutrition and Translational Research in Metabolism,</i>

		<i>Maastricht University Medical Center, Maastricht, Netherlands</i>
17:00-17:10	S23.09	<p>Non-invasive measurement of lactate concentration in whole human breast tumours using advanced magnetic resonance spectroscopy (MRS) Cheung, S. M.¹, Husain, E.², Masannat, Y.³, Miller, I. D.², Wahle, K.⁴, Heys, S. D.³, He, J.¹ ¹<i>University of Aberdeen, Aberdeen, United Kingdom, ²Aberdeen Royal Infirmary, Pathology Department, Aberdeen, United Kingdom, ³Aberdeen Royal Infirmary, Breast Unit, Aberdeen, United Kingdom, ⁴University of Strathclyde, Strathclyde Institute of Pharmacy and Biological Sciences, Glasgow, United Kingdom</i></p>
15:40-17:10 Room 4 - Plate & Van der Vorm Zaal	S24	Perfusion Imaging: Contrast Agent Methods
	Moderation:	Faber, C., Germany Knutsson, L., Sweden
15:40-15:50	S24.01	<p>Multi-modality perfusion imaging in gliomas: quantitative and visual comparison between ASL, DSC, and [¹⁵O]H₂O PET Petr, J.¹, Verburg, N.², Koopman, T.³, Kuijter, J. P.³, Barkhof, F.³, van den Hoff, J.¹, Boellaard, R.³, de Witt Hamer, P. C.², Mutsaerts, H. J.³ ¹<i>Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany, ²Amsterdam UMC, location VU University Medical Center Amsterdam, Neurosurgical Center Amsterdam, Amsterdam, Netherlands, ³Amsterdam UMC, location VU University Medical Center Amsterdam, Department of Radiology & Nuclear Medicine, Amsterdam, Netherlands</i></p>
15:50-16:00	S24.02	<p>An extracorporeal circulation mouse model for simultaneous measurements of arterial input functions for dynamic contrast-enhanced MRI and PET Backhaus, P.¹, Büther, F.¹, Wachsmuth, L.², Frohwein, L.³, Schäfers, K.³, Hermann, S.³, Schäfers, M.¹, Faber, C.² ¹<i>University Clinic Münster, Department of Nuclear Medicine, Münster, Germany, ²University of Münster, Translational Research Imaging Center - TRIC, Münster, Germany, ³University of Münster, European Institute for Molecular imaging - EIMI, Münster, Germany</i></p>
16:00-16:10	S24.03	<p>Advanced Pharmacokinetic Modeling in Small-Animal Compressed-Sensing DCE-MRI Jiřík, R.¹, Mangová, M.², Rajmic, P.², Macíček, O.¹, Souček, K.³, Starčuk, jr., Z.¹ ¹<i>Institute of Scientific Instruments, Czech Academy of Sciences, Brno, Czech Republic, ²Brno University of Technology, Department of Telecommunications, Brno, Czech Republic, ³Institute of Biophysics of the Czech Academy of Sciences, Department of Cytokinetics, Brno, Czech Republic</i></p>
16:10-16:20	S24.04	<p>Comparison of fitting approaches in Dynamic Contrast-Enhanced Magnetic Resonance Imaging: Direct estimation from raw k-space signals vs. conventional approach from concentration-time curves Bartoš, M.¹, Maier, O.², Stollberger, R.², Jiřík, R.³ ¹<i>Institute of Information Theory and Automation of the Czech Academy of Science, Prague, Czech Republic, ²Institute of Medical Engineering, Technical University Graz, Graz, Austria, ³Institute of Scientific Instruments of the Czech Academy of Science, Brno, Czech Republic</i></p>
16:20-16:30	S24.05	<p>Rapid Cardiac MR Myocardial Perfusion Quantification Using Machine Learning Trained with Synthetically Generated Sample Data Hoh, T., von Spiczak, J., Joyce, T., Lingwood, R., Dillinger, H., Kozerke, S. <i>University and ETH Zurich, Institute for Biomedical Engineering, Zurich, Switzerland</i></p>
16:30-16:40	S24.06	<p>Comparison of perfusion markers in the ex-vivo perfused porcine kidney: hyperpolarized [¹⁻¹³C]pyruvate versus gold standard ¹H DCE MRI Mariager, C.¹, Hansen, E.¹, Beck, S.¹, Munk, A.², Lyhne, M.², Søberg, K.³, Nielsen, P.³, Ringgaard, S.¹, Laustsen, C.¹ ¹<i>Aarhus University, Department of Clinical Medicine, The MR Research Centre, Aarhus, Denmark, ²Aarhus University, Department of Clinical Medicine, Aarhus, Denmark, ³Aarhus University, Department of Anesthesia and Intensive Care, Aarhus, Denmark</i></p>

16:40-16:50	S24.07	<p>Quantitative and spatial agreement of simultaneously acquired quantitative MRI DCE blood volume measurements and 18F-FET PET/MRI in patients with suspected recurrent high-grade gliomas</p> <p>Henriksen, O.¹, Muhic, A.², Lundemann, M.², Larsson, H.³, Hansen, A.³, Larsen, V.⁴, Poulsen, H.², Law, I.³</p> <p>¹Rigshospitalet, Dept. of Clin. Physiology, Nuclear Medicine and PET, Copenhagen, Denmark, ²Rigshospitalet, Dept. of Oncology, Copenhagen, Denmark, ³Rigshospitalet, Dept. of Clin. Physiology, Nuclear Medicine and PET, Copenhagen, Denmark, ⁴Rigshospitalet, Dept. of Radiology, Copenhagen, Denmark</p>
16:50-17:00	S24.08	<p>Multi-modal evaluation of haemodynamic impairments within individual watershed areas reveals increased sensitivity in unilateral carotid artery stenosis</p> <p>Kaczmarz, S.¹, Göttler, J.¹, Petr, J.², Hansen, M. B.³, Kufer, J.¹, Zimmer, C.¹, Mouridsen, K.³, Hyder, F.⁴, Preibisch, C.¹</p> <p>¹Technical University of Munich (TUM), School of Medicine, Department of Neuroradiology, Munich, Germany, ²Helmholtz-Zentrum Dresden-Rossendorf, PET center, Institute of Radiopharmaceutical Cancer Research, Dresden, Germany, ³Aarhus University, Institute of Clinical Medicine, Aarhus, Denmark, ⁴Yale University, MRRC, New Haven, United States</p>
17:00-17:10	S24.09	<p>Effective oxygen diffusivity is ipsilaterally decreased in asymptomatic unilateral internal carotid artery stenosis</p> <p>Kufer, J.¹, Goettler, J.¹, Zimmer, C.¹, Hyder, F.², Preibisch, C.¹, Kaczmarz, S.¹</p> <p>¹Technical University of Munich, School of Medicine, Klinikum rechts der Isar, Department of Neuroradiology, Munich, Germany, ²Yale University, MRRC, New Haven, CT, United States</p>
15:40-16:30 The Stage	L08	Neuroimaging
	Moderation:	Sunaert, S., Belgium van der Kolk, A., Utrecht, Netherlands
15:40-15:42	L08.01	<p>Maturation effects of tract-specific myelin content</p> <p>Drenthen, G.¹, Backes, W.¹, Fonseca Wald, E.², Aldenkamp, A.³, Jansen, J.¹</p> <p>¹Maastricht University Medical Center, Department of Radiology and Nuclear Medicine, Maastricht, Netherlands, ²Maastricht University Medical Center, Department of Neurology, Maastricht, Netherlands, ³Epilepsy Center Kempenheaghe, Department of Behavioral Sciences, Heeze, Netherlands</p>
15:42-15:44	L08.02	<p>Accuracy of neurophysiological and functional MRI data in chronic disorders of consciousness differentiation</p> <p>Sinitzyn, D.¹, Kremneva, E.², Legostaeva, L.¹, Yazeva, E.¹, Sergeev, D.¹, Poidasheva, A.¹, Sergeeva, A.¹, Suponeva, N.¹, Piradov, M.¹</p> <p>¹Research center of neurology, Moscow, Russian Federation, ²Research center of neurology, Neuroradiology, Moscow, Russian Federation</p>
15:44-15:46	L08.03	<p>Comparison of MTsat and MTR as biomarkers of white matter tissue integrity: correlation with clinical features and conventional MRI-visible lesions load</p> <p>York, E.¹, Thrippleton, M.¹, Meijboom, R.¹, Chandran, S.², Connick, P.³, Coles, A.⁴, Waldman, A.¹</p> <p>¹University of Edinburgh, Centre for Clinical Brain Sciences, Edinburgh Imaging, Edinburgh, United Kingdom, ²University of Edinburgh, Centre for Clinical Brain Sciences, Euan MacDonald Centre for Motor Neurone Disease Research, Anne Rowling Regenerative Neurology Clinic, Edinburgh, United Kingdom, ³University of Edinburgh, Anne Rowling Regenerative Neurology Clinic, Edinburgh, United Kingdom, ⁴University of Cambridge, Department of Clinical Neurosciences, Cambridge, United Kingdom</p>
15:46-15:48	L08.04	<p>Regional brain white matter hyperintensities and neuropsychological function in late-life depression</p> <p>Emsell, L.¹, Blommaert, J.², Vansteelandt, K.³, Pille, W.³, De Winter, F.-L.³, Deprez, S.¹, Sunaert, S.¹, Bouckaert, F.³, Vandenbulcke, M.³</p> <p>¹KU Leuven, Translational MRI, Leuven, Belgium, ²KU Leuven, Department of Oncology, Leuven, Belgium, ³UPC KU Leuven, Old Age Psychiatry, Leuven, Belgium</p>

15:48-15:50	L08.05	<p>NAAG reduction after single concussion. ¹H MRS 3T study</p> <p>Menshchikov, P.^{1,2}, Ivantsova, A.³, Manzhurtsev, A.⁴, Ublinskiy, M.¹, Akhadov, T.¹, Semenova, N.²</p> <p><i>¹Clinical and Research Institute of Emergency Pediatric Surgery and Traumatology, Radiology, Moscow, Russian Federation, ²Semenov Institute of Chemical Physics of RAS, Biophysics, Moscow, Russian Federation, ³National Research Nuclear University "MEPhI", Moscow, Russian Federation, ⁴Emanuel Institute of Biochemical Physics of RAS, Moscow, Russian Federation</i></p>
15:50-15:52	L08.06	<p>A novel imaging biomarker for cancer from multicomponent T1 relaxometry</p> <p>Oros-Peusquens, A.-M., Weglage, A., Shah, N. J.</p> <p><i>Research Centre Juelich, INM-4, Juelich, Germany</i></p>
15:52-15:54	L08.07	<p>Positive effects of physical workout on working memory in healthy ageing</p> <p>Naumczyk, P.¹, Sabisz, A.², Brzeska, B.², Sawicka, A.³, Jodzio, K.¹, Winklewski, P.², Szurowska, E.², Szarmach, A.², Olek, R.³</p> <p><i>¹University of Gdansk, Gdańsk, Poland, ²Gdansk Medical University, Gdańsk, Poland, ³Gdansk University of Physical Education and Sport, Gdańsk, Poland</i></p>
15:54-15:56	L08.08	<p>An explainable algorithm for automatic segmentation of glioblastoma</p> <p>Belmonte, G.¹, Latella, D.², Massink, M.², Biondi, M.¹, De Otto, G.¹, Vanzi, E.¹, Rubino, G.³, Tini, P.³, Ciancia, V.²</p> <p><i>¹Azienda Ospedaliera Universitaria Senese, Medical Physics, Siena, Italy, ²Consiglio Nazionale delle Ricerche, Istituto di Scienza e Tecnologie dell'Informazione 'A. Faedo', Pisa, Italy, ³Azienda Ospedaliera Universitaria Senese, Radiotherapy, Siena, Italy</i></p>
15:56-15:58	L08.09	<p>Dark Rim Lesions: Novel Double Inversion Recovery enhanced the prognostic accuracy in Multiple Sclerosis</p> <p>Pizzini, F. B.¹, Crescenzo, F.², Giaretta, A.³, Magliozzi, R.², Brillo, A.², Marastoni, D.², Tamanti, A.², Pisani, A.², Calabrese, M.²</p> <p><i>¹University Hospital Verona- Azienda Ospedaliera Universitaria Verona, Department of Diagnostics and Pathology, Verona, Italy, ²University of Verona, Dept. of Neurosciences, Biomedicine and Movement, Verona, Italy, ³University of Verona, Department of Diagnostics and Pathology, Verona, Italy</i></p>
15:58-16:00	L08.10	<p>Assessing Functional and Structural Connectivity in mTBI Patients</p> <p>Simard, N.¹, Noseworthy, M. D.²</p> <p><i>¹McMaster University, Electrical and Computer Engineering, Hamilton, Canada, ²McMaster University, School of Biomedical Engineering, Hamilton, Canada</i></p>
16:00-16:02	L08.11	<p>Tissue-type plasminogen activator and MRI features of cerebral sporadic small vessel disease</p> <p>Zabıtova, M.¹, Shabalina, A.², Dobrynina, L.¹, Kostyreva, M.², Akhmetzyanov, B.³, Gadzhieva, Z.¹, Kremneva, E.⁴, Krotenkova, M.⁴</p> <p><i>¹Research center of neurology, Neurology, Moscow, Russian Federation, ²Research center of neurology, Moscow, Russian Federation, ³Medical and Rehabilitation center, Radiology, Moscow, Russian Federation, ⁴Research center of neurology, Neuroradiology, Moscow, Russian Federation</i></p>
16:02-16:04	L08.12	<p>Assessing Blood-brain barrier permeability at 7T: proof of principle in a cortical ischemic stroke patient</p> <p>Canjels, L.¹, Backes, W.¹, Rouhl, R.², Poser, B.³, Bekelaar, K.², van Oostenbrugge, R.², Aldenkamp, A.⁴, Jansen, J.¹</p> <p><i>¹Maastricht University Medical Center, School for Mental Health and Neuroscience, Radiology and Nuclear Medicine, Maastricht, Netherlands, ²Maastricht University Medical Center, School for Mental Health and Neuroscience, Neurology, Maastricht, Netherlands, ³Maastricht University, Faculty of Psychology and Neuroscience, Maastricht, Netherlands, ⁴Epilepsy Center Kempenhaeghe, Heeze, Netherlands</i></p>
16:04-16:06	L08.13	<p>fMRI as an objective tool for the assessment of olfactory function in anosmic patients.</p> <p>Gil-Correa, M.¹, Sanz-Morales, E.¹, Melero, H.¹, Borromeo, S.¹, Gomez-Calero, C.², Toledano, A.³, Hernández-Tamames, J. A.⁴, Malpica, N.¹</p> <p><i>¹Universidad Rey Juan Carlos, Medical Image Analysis and Biometrics Laboratory (LAIMBIO), Móstoles, Spain, ²Universidad Rey Juan Carlos, Alcorcón, Spain, ³Hospital Universitario Fundación Alcorcón, Departamento de Otorrinolaringología, Alcorcón, Spain, ⁴Erasmus MC, Radiology and Nuclear Medicine, Rotterdam, Netherlands</i></p>

16:06-16:08	L08.14	<p>Magnetic Resonance Image Compilation (MAGiC): utility in Epilepsy Imaging</p> <p>Vadapalli, R.¹, Annamraju, R. b.², Vadapalli, a. s.³ ¹Vijaya Diagnostics, Radiology, Hyderabad, India, ²GE Healthcare, Digital innovations in affordable care, Bangalore, India, ³Medway Maritime Hospital Windmill Road Gillingham Kent, Orthopaedic surgery, Hyderabad 500020, India</p>
16:08-16:10	L08.15	<p>Low-level neural mechanisms support working memory performance in healthy ageing.</p> <p>Naumczyk, P.¹, Jodzio, K.¹, Finc, K.² ¹University of Gdansk, Gdańsk, Poland, ²Centre for Modern Interdisciplinary Technologies, Torun, Poland</p>
16:10-16:12	L08.16	<p>Variation in White Matter Properties Predicts the Abilities of Face Recognition: A Normal Adult Cohort Study</p> <p>CHEN, P.-Y.¹, Chen, C.-L.², Hsu, Y.-C.³, CAN, C.⁴, Chiu, M.-J.⁵, Tseng, W.-Y. I.¹ ¹Molecular Imaging Center, National Taiwan University, Taipei, Taiwan, ²Institute of Medical Device and Imaging, National Taiwan University College of Medicine, Taipei, Taiwan, ³AcroViz Technology Inc., Taipei, Taiwan, ⁴Cambridge Center for Ageing and Neuroscience (Cam-CAN), University of Cambridge and MRC Cognition and Brain Sciences Unit, Cambridge CB2 3EB, United Kingdom, ⁵National Taiwan University, Department of Neurology, National Taiwan University Hospital, College of Medicine, Taipei, Taiwan</p>
16:12-16:14	L08.17	<p>The Role low Perfusion Compartments in GBM Patient Survival Using Combing Analysis of Perfusion and Diffusion MRI</p> <p>Karami, G.¹, Giuseppe Orlando, M.², Caulo, M.³, Del Gratta, C.⁴ ¹PhD student, Department Neuroscience, Imaging, and Clinical Science, Gabriele D'Annunzio University, Chieti-Pescara., Chieti, Italy, ²MD, Department Neuroscience, Imaging, and Clinical Science, Gabriele D'Annunzio University, Chieti-Pescara., Chieti, Italy, ³MD, Neuroradiologist, Department Neuroscience, Imaging, and Clinical Science, Gabriele D'Annunzio University, Chieti-Pescara., Chieti, Italy, ⁴PhD, Physicist, Department Neuroscience, Imaging, and Clinical Science, Gabriele D'Annunzio University, Chieti-Pescara., Chieti, Italy</p>
16:14-16:16	L08.18	<p>Segmentation of the arcuate fasciculus using probabilistic tractography in comparison with language fMRI</p> <p>Jung-Botho, M., Batra, M., Klose, U. University Hospital Tübingen, Department of Diagnostic and Interventional Neuroradiology, Tübingen, Germany</p>
16:16-16:18	L08.19	<p>Malrotation of the Coronal Plane Confounds Callosal Angle Measurement in Normal Pressure Hydrocephalus</p> <p>Lee, W.¹, Lee, A.¹, Chen, R.¹, Keong, N.², Chan, L. L.¹ ¹Singapore General Hospital, Department of Diagnostic Radiology, Singapore General Hospital, Singapore, Singapore, Singapore, ²Singapore General Hospital, Department of Neurosurgery, National Neuroscience Institute, Singapore, Singapore, Singapore</p>
16:18-16:20	L08.20	<p>QSM as an Indicator for the IDH Mutational Status in Cerebral Gliomas</p> <p>Lindemeyer, J.¹, Worthoff, W. A.¹, Shymanskaya, A.², Langen, K.-J.¹, Shah, N. J.¹ ¹Forschungszentrum Jülich, INM-4, Jülich, Germany, ²Forschungszentrum Jülich, INM-11, Jülich, Germany</p>
16:20-16:22	L08.21	<p>Functional and anatomical MRI study of de- and remyelination processes in the Curpizone mouse model, and their modulation by therapeutic intervention with Clemastine</p> <p>Egimendia, A.¹, Padró, D.¹, Colás, L.¹, Plaza, S.¹, Pastor, G.¹, Otaegui, D.², Ramos Cabrer, P.¹ ¹Cic biomaGUNE, Magnetic Resonance Imaging Lab, Donostia, Spain, ²IIS Biodonostia, Multiple Sclerosis, Donostia, Spain</p>
17:20-18:20 Room 1 - Willem Burger Zaal	I27	<p>Roundtable Discussion Can Europe Lead in Machine Learning of MRI-Data?</p>
	Moderation:	Pizzini, F., Verona, Italy
17:20-18:20	I27.01	Panellists

		Geerts-Ossevoort, L. ¹ , Marsella, M. ² , Pesapane, F. ³ , Niessen, W. ⁴ <i>1. , Eindhoven, Netherlands, 2. , Luxemburg, Luxembourg, 3. Università degli Studi di Milano, Postgraduation School in Radiodiagnostic, Milan, Italy, 4. , Rotterdam, Netherlands</i>
18:20-18:40 Room 1 - Willem Burger Zaal		Closing and Awards Ceremony