

Review Articles

- Neuro** 1283 **Magnetic Resonance Iron Imaging in Amyotrophic Lateral Sclerosis**
Anjan Bhattarai, Gary F. Egan, Paul Talman, Phyllis Chua, and Zhaolin Chen
- Cardiac** 1301 **Four-Dimensional Flow Magnetic Resonance Imaging in the Assessment of Blood Flow in the Heart and Great Vessels: A Systematic Review**
Ciara M. Doyle, Jenny Orr, John P. Greenwood, Sven Plein, Charalampos Tsoumpas, and Malenka M. Bissell
- Safety** 1322 **Magnetic Resonance Imaging During a Pandemic: Recommendations by the ISMRM Safety Committee**
Jeremy D. Collins, Howard Rowley, Tim Leiner, Scott Reeder, Maureen Hood, Ilona Dekkers, Khin Tha, Vikas Gulani, and Emre Kopanoglu, for the ISMRM MR Safety Committee
- Technical** 1340 **Compressed Sensing in Sodium Magnetic Resonance Imaging: Techniques, Applications, and Future Prospects**
Qingping Chen, N. Jon Shah, and Wieland A. Worthoff
- Musculoskeletal** 1357 **An Update in Imaging Evaluation of Histopathological Grade of Soft Tissue Sarcomas Using Structural and Quantitative Imaging and Radiomics**
Shaobo Fang, Yanyu Yang, Nan Xu, Yun Tu, Zhenzhen Yin, Yu Zhang, Yajie Liu, Zhiqing Duan, Wenyu Liu, and Shaowu Wang

Research Articles

- Chest** 1376 **A Comparative Study of Amide Proton Transfer Weighted Imaging and Intravoxel Incoherent Motion MRI Techniques Versus (18) F-FDG PET to Distinguish Solitary Pulmonary Lesions and Their Subtypes**
Ting Fang, Nan Meng, Pengyang Feng, Zhun Huang, Ziqiang Li, Fangfang Fu, Jianmin Yuan, Yang Yang, Hui Liu, Neil Roberts, and Meiyun Wang
- Editorial** 1391 **Editorial for "A Comparative Study of Amide Proton Transfer Weighted Imaging (APT_w) and Intravoxel Incoherent Motion (IVIM) MRI Techniques and (18) F-FDG PET to Distinguish Solitary Pulmonary Lesions and Their Subtypes"**
Danilo T. Wada and Marcel Koenigkam-Santos
- Abdomen** 1393 **Perfusion Analysis of Kidney Injury in Rats With Cirrhosis Induced by Common Bile Duct Ligation Using Arterial Spin Labeling MRI**
Yongquan Yu, Shuangshuang Xie, Kaiqi Wang, Fuzhi Zhang, Chao Jiang, Caixin Qiu, Jinxia Zhu, and Wen Shen
- Editorial** 1405 **Editorial for "Perfusion Analysis of Kidney Injury in Rats With Cirrhosis Induced by Common Bile Duct Ligation Using Arterial Spin Labeling MRI"**
Shengwen Deng and Eric R. Muir
- 1407 **Hepatic Iron Quantification Using a Free-Breathing 3D Radial Gradient Echo Technique and Validation With a 2D Biopsy-Calibrated R₂^{*} Relaxometry Method**
Shawyon Chase Rohani, Cara E. Morin, Xiaodong Zhong, Stephan Kannengiesser, Utsav Shrestha, Chris Goode, Joseph Holtrop, Ayaz Khan, Ralf B. Loeffler, Jane S. Hankins, Claudia M. Hillenbrand, and Aaryani Tipirneni-Sajja
- Editorial** 1417 **Editorial for "Hepatic Iron Quantification Using a Free-Breathing 3D Radial Gradient Echo Technique and Validation with a 2D Biopsy-Calibrated R₂^{*} Relaxometry Method"**
Diana M. Lindquist, Jonathan R. Dillman, and Jean A. Tkach
- 1419 **Effects of B₁⁺ Heterogeneity on Spin Echo-Based Liver Iron Estimates**
Eamon K. Doyle, Samuel Thornton, Nilesh R. Ghugre, Thomas D. Coates, Krishna S. Nayak, and John C. Wood
- Editorial** 1426 **Editorial for "Effects of B₁ Heterogeneity on Spin Echo-Based Liver Iron Estimates"**
Scott B. Reeder

- Vascular**
- 1428 A General Model to Calculate the Spin–Lattice Relaxation Rate (R1) of Blood, Accounting for Hematocrit, Oxygen Saturation, Oxygen Partial Pressure, and Magnetic Field Strength Under Hyperoxic Conditions**
Emma Bluemke, Eleanor Stride, and Daniel P. Bulte
- 1440 Perfusion and Permeability MRI Predicts Future Cavernous Angioma Hemorrhage and Growth**
Je Yeong Sone, Nicholas Hobson, Abhinav Srinath, Sharbel G. Romanos, Ying Li, Julián Carrión-Penagos, Abdallah Shkoukani, Agnieszka Stadnik, Kristina Piedad, Rhonda Lightle, Thomas Moore, Dorothy DeBiasse, Dehua Bi, Robert Shenkar, Timothy Carroll, Yuan Ji, Romuald Girard, and Issam A. Awad
- Editorial**
- 1450 Editorial for “Perfusion and Permeability Magnetic Resonance Imaging (MRI) Predicts Future Cavernous Angioma Hemorrhage and Growth”**
David Hasan
- Cardiac**
- 1452 Right/Left Ventricular Blood Pool T2 Ratio as an Innovative Cardiac MRI Screening Tool for the Identification of Left-to-Right Shunts in Patients With Right Ventricular Disease**
Tilman Emrich, Veronica Bordonaro, U. Joseph Schoepf, Aniela Petrescu, Gabrielle Young, Moritz Halfmann, Theresia Schoeler, Josua Decker, Ibukun Abidoye, Anna Lena Emrich, Karl-Friedrich Kreitner, Kai Helge Schmidt, Akos Varga-Szemes, and Aurelio Secinaro
- Editorial**
- 1459 Editorial for: “Right/Left Ventricular Blood Pool T2 Ratio as an Innovative Cardiac MRI Screening Tool for the Identification of Left-to-Right Shunts in Patients with Right Ventricular Disease”**
Hideo Arai, Masateru Kawakubo, and Toshiaki Kadokami
- 1461 Impact of BMI on Left Atrial Strain and Abnormal Atrioventricular Interaction in Patients With Type 2 Diabetes Mellitus: A Cardiac Magnetic Resonance Feature Tracking Study**
Meng-ting Shen, Ying-kun Guo, Xi Liu, Yan Ren, Li Jiang, Lin-jun Xie, Yue Gao, Yi Zhang, Ming-yan Deng, Yuan Li, and Zhi-gang Yang
- Editorial**
- 1476 Editorial for “Impact of BMI on Left Atrial Strain and Abnormal Atrioventricular Interaction in Patients With Type 2 Diabetes Mellitus: A Cardiac Magnetic Resonance Feature Tracking Study”**
Mareike Gastl and Florian Bönner
- 1478 Diverse Right Ventricular Remodeling Evaluated by MRI and Prognosis in Eisenmenger Syndrome With Different Shunt Locations**
Chao Gong, Shuai He, Xiaoling Chen, Lili Wang, Jiajuan Guo, Juan He, Lidan Yin, Chen Chen, Yuchi Han, and Yucheng Chen
- Editorial**
- 1489 Editorial for “Diverse Right Ventricular Remodelling Evaluated by Cardiac Magnetic Resonance Imaging and Prognosis in Eisenmenger Syndrome with Different Shunt Locations”**
Sara L. Hungerford and Nicole K. Bart
- Head and Neck**
- 1491 Radiomic Features on Multiparametric MRI for Preoperative Evaluation of Pituitary Macroadenomas Consistency: Preliminary Findings**
Tao Wan, Chunxue Wu, Ming Meng, Tao Liu, Chuzhong Li, Jun Ma, and Zengchang Qin
- 1504 A Comparison of 3 T and 7 T MRI for the Clinical Evaluation of Uveal Melanoma**
Michael C.Y. Tang, Myriam G. Jaarsma-Coes, Teresa A. Ferreira, Lorna Zwirs - Grech Fonk, Marina Marinkovic, Gregorius P.M. Luyten, and Jan-Willem M. Beenakker
- Editorial**
- 1516 Editorial for “A Comparison of 3T and 7T MRI for the Clinical Evaluation of Uveal Melanoma”**
Aurélien Bustin
- Breast**
- 1518 Transfer Learning Strategy Based on Unsupervised Learning and Ensemble Learning for Breast Cancer Molecular Subtype Prediction Using Dynamic Contrast-Enhanced MRI**
Rong Sun, Xuewen Hou, Xiujuan Li, Yuanzhong Xie, and Shengdong Nie

<i>Editorial</i>	1535	Editorial for "Transfer Learning Strategy Based on Unsupervised Learning and Ensemble Learning for Breast Cancer Molecular Subtype Prediction Using Dynamic Contrast Enhanced MRI" <i>Jonn-Terje Geitung</i>
Musculoskeletal	1536	Q-Dixon and GRAPPATINI T2 Mapping Parameters: A Whole Spinal Assessment of the Relationship Between Osteoporosis and Intervertebral Disc Degeneration <i>Xiangwen Li, Yuxue Xie, Rong Lu, Yuyang Zhang, Qing Li, Tobias Kober, Tom Hilbert, Hongyue Tao, and Shuang Chen</i>
<i>Editorial</i>	1547	Editorial for "Q-Dixon and GRAPPATINI T2 Mapping Parameters: A Whole Spinal Assessment of the Relationships Between Osteoporosis and Intervertebral Disc Degeneration" <i>Jessica Marie Bugeja</i>
<i>Editorial</i>	1549	Editorial for "Device for Assessing Knee Joint Dynamics During MR Imaging" <i>Christopher J. Hanrahan</i>
Neuro	1551	Imaging Blood-Brain Barrier Permeability Through MRI in Pediatric Sickle Cell Disease: A Feasibility Study <i>Zixuan Lin, Eboni Lance, Tiffany McIntyre, Yang Li, Peiyong Liu, Chantelle Lim, Hongli Fan, Aylin Tekes, Alicia Cannon, James F. Casella, and Hanzhang Lu</i>
	1559	Improved Assessment of Longitudinal Spinal Cord Atrophy in Multiple Sclerosis Using a Registration-Based Approach: Relevance for Clinical Studies <i>Paola Valsasina, Mark A. Horsfield, Alessandro Meani, Claudio Gobbi, Antonio Gallo, Maria A. Rocca, and Massimo Filippi</i>
<i>Editorial</i>	1569	Editorial for "Improved Assessment of Longitudinal Spinal Cord Atrophy in Multiple Sclerosis Using a Registration-Based Approach: Relevance for Clinical Studies" <i>Barbara Bellenberg and Carsten Lukas</i>
	1571	Optimal Diffusion Gradient Encoding Scheme for Diffusion Tensor Imaging Based on Golden Ratio <i>Liangyou Liu, Zhaotong Li, Zeru Zhang, Yifan Xia, Sha Li, and Song Gao</i>
<i>Editorial</i>	1582	Editorial for "Optimal Diffusion Gradient Encoding Scheme for Diffusion Tensor Imaging Based on Golden Ratio" <i>Giuseppe Cruciani</i>
<i>Editorial</i>	1584	Editorial for "Cross-Scanner Harmonization of Neuromelanin-Sensitive MRI for Multisite Studies" <i>Lara Wieland and Florian Schlagenhaut</i>