

Review Articles

- 347 **APT-Weighted MRI: Techniques, Current Neuro Applications, and Challenging Issues**
Jinyuan Zhou, Hye-Young Heo, Linda Knutsson, Peter C.M. van Zijl, and Shanshan Jiang
- 365 **Free-Breathing Unsedated MRI in Children: Justification and Techniques**
Sara Janos, Gary R. Schooler, Jennifer S. Ngo, and Joseph T. Davis
- 377 **Contrast-Enhanced MRI for Breast Cancer Screening**
Ritse M. Mann, Christiane K. Kuhl, and Linda Moy

Original Research

- Abdomen**
- 391 **Respiratory-Triggered Spin-Echo Echo-Planar Imaging-Based MR Elastography for Evaluating Liver Stiffness**
Hui Wang, Jean A. Tkach, Andrew T. Trout, Charles L. Dumoulin, and Jonathan R. Dillman
- 397 **MRI-Based Nomogram Estimates the Risk of Recurrence of Primary Nonmetastatic Pancreatic Neuroendocrine Tumors After Curative Resection**
Hai-Tao Sun, Shi-Long Zhang, Kai Liu, Jian-Jun Zhou, Xing-Xing Wang, Ting-Ting Shen, Xu-Hao Song, Ying-Long Guo, and Xiao-Lin Wang
- 410 **Patient Respiratory-Triggered Quantitative T₂ Mapping in the Pancreas**
Naik Vietti Violi, Tom Hilbert, Jessica A.M. Bastiaansen, Jean-Francois Knebel, Jean-Baptiste Ledoux, Alto Stemmer, Reto Meuli, Tobias Kober, and Sabine Schmidt
- 417 **Symptoms That Are Associated With Decreased Pancreatic Enzyme Flow: MRCP Assessment**
Akira Yamamoto, Katsuyoshi Ito, Kazuya Yasokawa, Akihiko Kanki, Daigo Tanimoto, Minoru Hayashida, and Tsutomu Tamada
- Whole Body**
- 424 **Differentiating Supraclavicular From Gluteal Adipose Tissue Based on Simultaneous PDFF and T₂* Mapping Using a 20-Echo Gradient-Echo Acquisition**
Daniela Franz, Maximilian N. Diefenbach, Franziska Treibel, Dominik Weidlich, Jan Syväri, Stefan Ruschke, Mingming Wu, Christina Holzapfel, Theresa Drabsch, Thomas Baum, Holger Eggers, Ernst J. Rummeny, Hans Hauner, and Dimitrios C. Karampinos
- Physics**
- 435 **²³Na Triple-Quantum Signal of in vitro Human Liver Cells, Liposomes, and Nanoparticles: Cell Viability Assessment vs. Separation of Intra- and Extracellular Signal**
Michaela A.U. Hoesl, Dennis Kleimaier, Ruomin Hu, Matthias Malzacher, Cordula Nies, Eric Gottwald, and Lothar R. Schad
- Safety**
- 445 **Absence of Dentate Nucleus Resting-State Functional Connectivity Changes in Nonneurological Patients With Gadolinium-Related Hyperintensity on T₁-Weighted Images**
Carlo A. Mallio, Claudia Piervincenzi, Eliana Gianolio, Vincenzo Cirimele, Luigi G. Papparella, Massimo Marano, Livia Quintiliani, Silvio Aime, Filippo Carducci, Paul M. Parizel, and Carlo C. Quattrocchi
- Breast**
- 456 **Machine Learning-Based Prediction of Future Breast Cancer Using Algorithmically Measured Background Parenchymal Enhancement on High-Risk Screening MRI**
Ashirbani Saha, Lars J. Grimm, Sujata V. Ghate, Connie E. Kim, Mary S. Soo, Sora C. Yoon, and Maciej A. Mazurowski

- 465 Assessing the Performance of Benign and Malignant Breast Lesion Classification With Bilateral TIC Differentiation and Other Effective Features in DCE-MRI**
Hong Li, Hang Sun, Siqi Liu, Wei Zhang, Felicity Mmaezi Arukalam, He Ma, and Wei Qian
- Musculoskeletal**
- 474 Intravenous Contrast-Free Standardized Exercise Perfusion Imaging in Diabetic Feet With Ulcers**
Masoud Edalati, Mary K. Hastings, David Muccigrosso, Christopher J. Sorensen, Charles Hildebolt, Mohamed A. Zayed, Michael J. Mueller, and Jie Zheng
- 481 Increased Perfusion in Dynamic Gadolinium-Enhanced MRI Correlates With Areas of Bone Repair and of Bone Necrosis in Patients With Kienböck's Disease**
Gunilla Müller, Sven Månsson, Markus F. Müller, Martin Johansson, and Anders Björkman
- 490 3T Chemical Shift-Encoded MRI: Detection of Altered Proximal Femur Marrow Adipose Tissue Composition in Glucocorticoid Users and Validation With Magnetic Resonance Spectroscopy**
Dimitri Martel, Benjamin Leporq, Amit Saxena, H. Michael Belmont, Gabrielle Turyan, Stephen Honig, Ravinder R. Regatte, and Gregory Chang
- 497 T₂-Based MRI Delta-Radiomics Improve Response Prediction in Soft-Tissue Sarcomas Treated by Neoadjuvant Chemotherapy**
Amandine Crombé, Cynthia Périer, Michèle Kind, Baudouin Denis De Senneville, François Le Loarer, Antoine Italiano, Xavier Buy, and Olivier Saut
- Head and Neck**
- 511 Accuracy of Blood Flow Assessment in Cerebral Arteries With 4D Flow MRI: Evaluation With Three Segmentation Methods**
Tora Dunås, Madelene Holmgren, Anders Wåhlin, Jan Malm, and Anders Eklund
- 519 Differentiation Between Glioblastoma, Brain Metastasis and Subtypes Using Radiomics Analysis**
Moran Artzi, Idan Bressler, and Dafna Ben Bashat
- Neuro**
- 529 Quantitative Histopathologic Assessment of Perfusion MRI as a Marker of Glioblastoma Cell Infiltration in and Beyond the Peritumoral Edema Region**
A. Vallatos, H.F.I. Al-Mubarak, J.L. Birch, L. Gallagher, J.M. Mullin, L. Gilmour, W.M. Holmes, and A.J. Chalmers
- 541 Integration of Neural Reward Processing and Appetite-Related Signaling in Obese Females: Evidence From Resting-State fMRI**
Peng Zhang, Yang Liu, Han Lv, Meng-yi Li, Feng-xia Yu, Zheng Wang, He-yu Ding, Li-xue Wang, Kai-xin Zhao, Zheng-yu Zhang, Peng-fei Zhao, Jing Li, Zheng-han Yang, Zhong-tao Zhang, and Zhen-chang Wang
- 552 Value of Fluid-Attenuated Inversion Recovery MRI Data Analyzed by the Lesion Segmentation Toolbox in Amyotrophic Lateral Sclerosis**
Anna M. Wirth, Siw Johannesen, Andrei Khomenko, Dobri Baldaranov, Tim-Henrik Bruun, Christina Wendl, Gerhard Schuierer, Mark W. Greenlee, and Ulrich Bogdahn
- 560 MRI as a Diagnostic Biomarker for Differentiating Primary Central Nervous System Lymphoma from Glioblastoma: A Systematic Review and Meta-analysis**
Chong Hyun Suh, Ho Sung Kim, Seung Chai Jung, Ji Eun Park, Choong Gon Choi, and Sang Joon Kim
- 573 Prospective Comparative Diagnostic Accuracy Evaluation of Dynamic Contrast-Enhanced (DCE) vs. Dynamic Susceptibility Contrast (DSC) MR Perfusion in Differentiating Tumor Recurrence From Radiation Necrosis in Treated High-Grade Gliomas**
Nader Zakhari, Michael S. Taccone, Carlos H. Torres, Santanu Chakraborty, John Sinclair, John Woulfe, Gerard H. Jansen, Greg O. Cron, Rebecca E. Thornhill, Matthew D.F. McInnes, and Thanh B. Nguyen

- 583 Improving the Detection Specificity of Endogenous MRI for Reactive Oxygen Species (ROS)**
Rong-Wen Tain, Alessandro M. Scotti, and Kejia Cai
- 592 Diurnal Variability of Cerebral Metabolites in Healthy Human Brain With 2D Localized Correlation Spectroscopy (2D L-COSY)**
Jameen Arm, Oun Al-iedani, Rod Lea, Jeannette Lechner-Scott, and Saadallah Ramadan
- Pelvis**
- 602 MRI Prognosticators for Adverse Maternal and Neonatal Clinical Outcome in Patients at High Risk for Placenta Accreta Spectrum (PAS) Disorders**
Charis Bourgioti, Konstantina Zafeiropoulou, Stavros Fotopoulos, Maria Evangelia Nikolaidou, Marianna Theodora, George Daskalakis, Chara Tzavara, Konstantinos Chatoupis, Evangelia Panourgias, Aristeidis Antoniou, Anastasia Konstantinidou, and Lia Angela Mouloupoulos
- 619 Probing Structure of Normal and Malignant Prostate Tissue Before and After Radiation Therapy With Luminal Water Fraction and Diffusion-Weighted MRI**
Dominic Carlin, Matthew R. Orton, David Collins, and Nandita M. deSouza
- Technical**
- 628 Dynamic Susceptibility Contrast Parametric Imaging Using Accelerated Dual-Contrast Echo Planar Imaging With Keyhole**
Liliana L. Caldeira, Seong Dae Yun, Nuno A. da Silva, Christian Filss, and N. Jon Shah
- Cardiac**
- 641 Fast Myocardial T₁ Mapping Using Shortened Inversion Recovery Based Schemes**
Li Huang, Radhouene Neji, Muhummad Sohaib Nazir, John Whitaker, Fiona Reid, Filippo Bosio, Amedeo Chiribiri, Reza Razavi, and Sébastien Roujol
- 655 Water–Fat Separation and Parameter Mapping in Cardiac MRI via Deep Learning With a Convolutional Neural Network**
James W. Goldfarb, Jason Craft, and J. Jane Cao