

## CME Article

- 11 **Clinical Applications of Chemical Exchange Saturation Transfer (CEST) MRI**  
*Kyle M. Jones, Alyssa C. Pollard, and Mark D. Pagel*

## Review Articles

- 28 **The Physics of MRI Safety**  
*Lawrence P. Panych and Bruno Madore*

- 44 **Noninvasive Imaging in Cardiac Deposition Diseases**  
*Ranjit Shah, Gaetano Nucifora, Rebecca Perry, and Joseph B. Selvanayagam*

## Original Research

## Musculoskeletal

- 60 **Detection of Soft-Tissue Abscess: Comparison of Diffusion-Weighted Imaging to Contrast-Enhanced MRI**  
*Chang Woo Chun, Joon-Yong Jung, Jun Seung Baik, Won-Hee Jee, Sun Ki Kim, and Seung Han Shin*

- 69 **T<sub>2</sub>-Mapping Evaluation of Early Cartilage Alteration of Talus for Chronic Lateral Ankle Instability With Isolated Anterior Talofibular Ligament Tear or Combined With Calcaneofibular Ligament Tear**  
*Hongyue Tao, Yiwen Hu, Yang Qiao, Kui Ma, Xu Yan, Yinghui Hua, and Shuang Chen*

- 78 **MRI and Biomechanics Multidimensional Data Analysis Reveals R<sub>2</sub>-R<sub>1ρ</sub> as an Early Predictor of Cartilage Lesion Progression in Knee Osteoarthritis**  
*Valentina Padoia, Jenny Haefeli, Kazuhito Morioka, Hsiang-Ling Teng, Lorenzo Nardo, Richard B. Souza, Adam R. Ferguson, and Sharmila Majumdar*

## Breast

- 91 **Application of Whole-Lesion Histogram Analysis of Pharmacokinetic Parameters in Dynamic Contrast-Enhanced MRI of Breast Lesions With the CAIPIRINHA-Dixon-TWIST-VIBE Technique**  
*Zhiwei Li, Tao Ai, Yiqi Hu, Xu Yan, Marcel Dominik Nickel, Xiao Xu, and Liming Xia*

- 97 **Ultrafast Dynamic Contrast-Enhanced MRI of the Breast Using Compressed Sensing: Breast Cancer Diagnosis Based on Separate Visualization of Breast Arteries and Veins**  
*Natsuko Onishi, Masako Kataoka, Shotaro Kanao, Hajime Sagawa, Mami Iima, Marcel Dominik Nickel, Masakazu Toi, and Kaori Togashi*

## Neuro

- 105 **MR Elastography Detection of Early Viscoelastic Response of the Murine Hippocampus to Amyloid  $\beta$  Accumulation and Neuronal Cell Loss Due to Alzheimer's Disease**  
*Tonia Munder, Anna Pfeffer, Stefanie Schreyer, Jing Guo, Juergen Braun, Ingolf Sack, Barbara Steiner, and Charlotte Klein*

- 115 **Region-Specific Atrophy of Precentral Gyrus in Patients With Amyotrophic Lateral Sclerosis**  
*Yuanyuan Qin, Shun Zhang, Rifeng Jiang, Fei Gao, Xiaoying Tang, and Wenzhen Zhu*

- 123 **Simple Modification of Arm Position Improves B<sub>1</sub><sup>+</sup> and Signal Homogeneity in the Thoracolumbar Spine at 3T**  
*Kinya Ishizaka, Kohsuke Kudo, Kuniaki Harada, Toru Shirai, Taro Fujiwara, Suzuko Aoike, Sayaka Takamori, and Hiroki Shirato*

- 131 **Comparison of Arterial Spin Labeling Registration Strategies in the Multi-center GENetic Frontotemporal dementia Initiative (GENFI)**  
*Henri J.M.M. Mutsaerts, Jan Petr, David L. Thomas, Enrico De Vita, David M. Cash, Matthias J.P. van Osch, Xavier Golay, Paul F.C. Groot, Sebastien Ourselin, John van Swieten, Robert Laforce Jr, Fabrizio Tagliavini, Barbara Borroni, Daniela Galimberti, James B. Rowe, Caroline Graff, Francesca B. Pizzini, Elizabeth Finger, Sandro Sorbi, Miguel Castelo Branco, Jonathan D. Rohrer, Mario Masellis, and Bradley J. MacIntosh, on behalf of the GENFI investigators*

## Abdomen

- 141 **Diffusion-Weighted Imaging of Hyperpolarized [<sup>13</sup>C]Urea in Mouse Liver**  
*Irene Marco-Rius, Jeremy W. Gordon, Aras N. Mattis, Robert Bok, Romelyn Delos Santos, Subramanian Sukumar, Peder E.Z. Larson, Daniel B. Vigneron, and Michael A. Ohliger*

- 152 **Additional Values of High-Resolution Gadoteric Acid-Enhanced MR Cholangiography for Evaluating the Biliary Anatomy of Living Liver Donors: Comparison With T<sub>2</sub>-Weighted MR Cholangiography and Conventional Gadoteric Acid-Enhanced MR Cholangiography**  
*Hyo-Jin Kang, Jeong Min Lee, Jeong Hee Yoon, Ijin Joo, Won Chang, Kyung-Suk Suh, Kwang-Woong Lee, Nam-Joon Yi, and Joon Koo Han*
- 160 **Non-Gaussian Diffusion Evaluation of the Human Kidney by Padé Exponent Model**  
*Alexandra Ljimini, Rotem S. Lanzman, Anja Müller-Lutz, Gerald Antoch, and Hans-Jörg Wittsack*
- 168 **Whole-Volume Apparent Diffusion Coefficient-Based Entropy Parameters for Assessment of Gastric Cancer Aggressiveness**  
*Song Liu, Huanhuan Zheng, Yujuan Zhang, Ling Chen, Wenxian Guan, Yue Guan, Yun Ge, Jian He, and Zhengyang Zhou*
- Pelvis 176 **Evaluation of MRI for Diagnosis of Extraprostatic Extension in Prostate Cancer**  
*Satheesh Krishna, Christopher S. Lim, Matthew D.F. McInnes, Trevor A. Flood, Wael M. Shabana, Robert S. Lim, and Nicola Schieda*
- 186 **Diffusion-Weighted and Magnetization Transfer Imaging in Testicular Spermatogenic Function Evaluation: Preliminary Results**  
*Huanjun Wang, Jian Guan, Jinhua Lin, Zhongwei Zhang, Shurong Li, Yan Guo, and Huasong Cai*
- Chest 191 **Response Assessment of Stereotactic Body Radiation Therapy Using Dynamic Contrast-Enhanced Integrated MR-PET in Non-Small Cell Lung Cancer Patients**  
*Yu-Sen Huang, Jenny Ling-Yu Chen, Feng-Ming Hsu, Jei-Yie Huang, Wei-Chun Ko, Yi-Chang Chen, Fu-Shan Jaw, Ruoh-Fang Yen, and Yeun-Chung Chang*
- 200 **Free-Breathing Pediatric Chest MRI: Performance of Self-Navigated Golden-Angle Ordered Conical Ultrashort Echo Time Acquisition**  
*Evan J. Zucker, Joseph Y. Cheng, Anshul Haldipur, Michael Carl, and Shreyas S. Vasanawala*
- Physics 210 **Rapid and Simultaneous Measurement of Phosphorus Metabolite Pool Size Ratio and Reaction Kinetics of Enzymes In Vivo**  
*Sang-Young Kim, Wei Chen, Dost Ongur, and Fei Du*
- Technical 222 **Imaging Short-Lived Reactive Oxygen Species (ROS) With Endogenous Contrast MRI**  
*Rong-Wen Tain, Alessandro M. Scotti, Weiguo Li, Xiaohong Joe Zhou, and Kejia Cai*
- Whole Body 230 **Incidental Findings in Research: A Focus Group Study About the Perspective of the Research Participant**  
*Anna W. de Boer, Yvonne M. Drewes, Renée de Mutsert, Mattijs E. Numans, Martin den Heijer, Olaf M. Dekkers, Albert de Roos, Hildo J. Lamb, Jeanet W. Blom, and Ria Reis*
- 238 **PEG-poly(L-lysine)-Based Polymeric Micelle MRI Contrast Agent: Feasibility Study of a Gd-Micelle Contrast Agent for MR Lymphography**  
*Hiroyuki Akai, Kouichi Shiraishi, Masayuki Yokoyama, Koichiro Yasaka, Masanori Nojima, Yusuke Inoue, Osamu Abe, Kuni Ohtomo, and Shigeru Kiryu*
- Cardiac 246 **Valve Mediated Hemodynamics and Their Association With Distal Ascending Aortic Diameter in Bicuspid Aortic Valve Subjects**  
*Vrishank Raghav, Alex J. Barker, Daniel Mangiameli, Lucia Mirabella, Michael Markl, and Ajit P. Yoganathan*
- 255 **Flip Angle Optimization for Balanced SSFP: Cardiac Cine Imaging Following the Application of Standard Extracellular Contrast Agent (Gadobutrol)**  
*Daniel L.R. Kuetting, Darius Dabir, Julian Luetkens, Andreas Feisst, Rami Homs, Daniel Thomas, Hans H. Schild, and Alois M. Sprinkart*
- 262 **Pulmonary Artery Stiffness in Chronic Obstructive Pulmonary Disease (COPD) and Emphysema: The Multi-Ethnic Study of Atherosclerosis (MESA) COPD Study**  
*Chia-Ying Liu, Megha Parikh, David A Bluemke, Pallavi Balte, James Carr, Stephen Dashnaw, Hooman D. Poor, Antoinette S Gomes, Eric A Hoffman, Steven M. Kawut, Joao A.C. Lima, David A. McAllister, Martin A. Prince, Jens Vogel-Claussen, and R. Graham Barr*

- 272 **Comparison of Fast Acquisition Strategies in Whole-Heart Four-Dimensional Flow Cardiac MR: Two-Center, 1.5 Tesla, Phantom and In Vivo Validation Study**  
*Pankaj Garg, Jos J.M. Westenberg, Pieter J. van den Boogaard, Peter P. Swoboda, Rahoz Aziz, James R.J. Foley, Graham J. Fent, F.G.J. Tyl, L. Coratella, Mohammed S.M. ElBaz, R.J. van der Geest, David M. Higgins, John P. Greenwood, and Sven Plein*
- 

Case Report

Neuro

- 282 **Brain Iron Accumulation in Wilson's Disease: A Longitudinal Imaging Case Study During Anticopper Treatment Using 7.0T MRI and Transcranial Sonography**  
*Petr Dusek, David Skoloudik, Jana Maskova, Till Huelnhagen, Radan Bruha, Daniela Zahorakova, Thoralf Niendorf, Evzen Ruzicka, Susanne A. Schneider, and Jens Wuerfel*
- 

Letter to the Editor

- 286 **Changes in Intracranial Venous Hemodynamics in a Patient With Idiopathic Intracranial Hypertension After Lumbar Puncture Precedes Therapeutic Success**  
*Julia Juhász, Thomas Lindner, Olav Jansen, Nils G. Margraf, and Axel Rohr*

Volume 47, Number 1 was mailed the week of December 18, 2017