

Review Article

- 1377 Measuring Brown Fat Using MRI and Implications in the Metabolic Syndrome**
Qian Yu, Shan Huang, Ting-Ting Xu, Yuan-Cheng Wang, and Shenghong Ju

Research Articles

- Pediatrics**
- 1393 Multichamber Dysfunction in Children and Adolescents With Severe Obesity: A Cardiac Magnetic Resonance Imaging Myocardial Strain Study**
Eric Xu, Nadja Kachenoura, Valeria della Valle, Béatrice Dubern, Alexandra Karsenty, Patrick Tounian, Jean-Nicolas Dacher, Richard Layese, Jérôme Lamy, Hubert Ducou le Pointe, Alban Redheuil, and Eléonore Blondiaux
- Abdomen**
- 1404 In Vivo Magnetic Resonance Spectroscopy of Hyperpolarized [1-¹³C]Pyruvate and Proton Density Fat Fraction in a Guinea Pig Model of Non-Alcoholic Fatty Liver Disease Development After Life-Long Western Diet Consumption**
Lauren M. Smith, Conrad B. Pitts, Lanette J. Friesen-Waldner, Neetin H. Prabhu, Katherine E. Mathers, Kevin J. Sinclair, Trevor P. Wade, Timothy R.H. Regnault, and Charles A. McKenzie
- Editorial**
- 1415 Editorial for "In Vivo Magnetic Resonance Spectroscopy of Hyperpolarized [1-¹³C] Pyruvate in a Guinea Pig Model of Life-Long Western Diet Consumption and Non-Alcoholic Fatty Liver Disease Development"**
Theresa A. Tuthill and Trent T. Ross
- 1417 Evaluation of Pancreatic Fibrosis Grading by Multiparametric Quantitative Magnetic Resonance Imaging**
Chang Liu, Yu Shi, Gongyu Lan, Youli Xu, and Fei Yang
- Editorial**
- 1430 Editorial for "Evaluation of Pancreatic Fibrosis Grading by Multiparametric Functional Magnetic Resonance Imaging"**
Carlo Cavaliere, Marco Salvatore, and Lorenzo Mannelli
- 1432 Noncontrast Magnetic Resonance Radiomics and Multilayer Perceptron Network Classifier: An approach for Predicting Fibroblast Activation Protein Expression in Patients With Pancreatic Ductal Adenocarcinoma**
Yinghao Meng, Hao Zhang, Qi Li, Pengyi Xing, Fang Liu, Kai Cao, Xu Fang, Jing Li, Jieyu Yu, Xiaochen Feng, Chao Ma, Li Wang, Hui Jiang, Jianping Lu, Yun Bian, and Chengwei Shao
- Editorial**
- 1444 Editorial for "Noncontrast Magnetic Resonance Radiomics and Multilayer Perceptron Network Classifier: An approach for Predicting Fibroblast Activation Protein Expression in Patients With Pancreatic Ductal Adenocarcinoma"**
Umaseh Sivanesan and Christian B. van der Pol
- 1446 Characteristics and Early Recurrence of Hepatocellular Carcinomas Categorized as LR-M: Comparison with Those Categorized as LR-4 or 5**
Jaeseung Shin, Sunyoung Lee, Seung-seob Kim, Yong Eun Chung, Jin-Young Choi, Mi-Suk Park, and Myeong-Jin Kim
- Editorial**
- 1455 Editorial for "Characteristics and Early Recurrence of Hepatocellular Carcinomas Categorized as LR-M: Comparison with Those Categorized as LR-4 or 5"**
Satoshi Kobayashi
- Pelvis**
- 1457 Visualization of Spatial Distribution of Spermatogenesis in Mouse Testes Using Creatine Chemical Exchange Saturation Transfer Imaging**
Yusuke Takahashi, Hidetaka Kioka, Shinichiro Fukuhara, Sohei Kuribayashi, Shigeyoshi Saito, Yoshihiro Asano, Seiji Takashima, Yoshichika Yoshioka, and Yasushi Sakata
- 1466 Magnetic Resonance Imaging Radiomics-Based Machine Learning Prediction of Clinically Significant Prostate Cancer in Equivocal PI-RADS 3 Lesions**
Stefanie J. Hectors, Christine Chen, Johnson Chen, Jade Wang, Sharon Gordon, Miko Yu, Bashir Al Hussein Al Awamlh, Mert R. Sabuncu, Daniel J.A. Margolis, and Jim C. Hu
- Editorial**
- 1474 Editorial for "MRI Radiomics-Based Machine Learning for Predict of Clinically Significant Prostate Cancer in Equivocal PI-RADS 3 Lesions"**
Gabriel A. Nketiah and Tone F. Bathen
- Cardiac**
- 1476 Left Ventricular Strain Analysis by Tissue Tracking- Cardiac Magnetic Resonance for early detection of Cardiac Dysfunction in children with End-Stage Renal Disease**
Donia M. Sobh, Nihal M. Batouty, Ahmed M. Tawfik, Basma Gadelhak, Ali H. Elmokadem, Ayman Hammad, Riham Eid, and Nashwa Hamdy

- 1486 Myocardial T1 Values at 1.5 T: Normal Values for General Electric Scanners and Sex-Related Differences**
Antonella Meloni, Nicola Martini, Vincenzo Positano, Gennaro D'Angelo, Andrea Barison, Giancarlo Todiere, Chrysanthos Grigoratos, Valerio Barra, Laura Pistoia, Luna Gargani, Andrea Ripoli, and Alessia Pepe
- Editorial** **1501 Editorial for "Myocardial T1 Values at 1.5 T: Normal Values for General Electric Scanners and Sex-Related Differences"**
Niranjan Balu and Karen G. Ordovas
- 1503 Right Ventricular Function and T1-Mapping in Boys With Duchenne Muscular Dystrophy**
Seraina A. Dual, Nyasha G. Maforo, Doff B. McElhinney, Ashley Prosper, Holden H. Wu, Shiraz Maskatia, Pierangelo Renella, Nancy Halnon, and Daniel B. Ennis
- Editorial** **1514 Editorial for "Right Ventricular Function and T1-Mapping in Boys With Duchenne Muscular Dystrophy"**
Hazel D. Sarah Rovno
- Vascular** **1516 MRI-Based Investigation of Association Between Cerebrovascular Structural Alteration and White Matter Hyperintensity Induced by High Blood Pressure**
Boyu Zhang, Yingzhe Wang, Bei Wang, Ying-Hua Chu, Yanfeng Jiang, Mei Cui, He Wang, and Xingdong Chen
- Editorial** **1527 Editorial for "MRI-Based Investigation of Association Between Cerebrovascular Structural Alteration and White Matter Hyperintensity Induced by High Blood Pressure"**
Mikko T. Huuskonen, Giuseppe Barisano, Ararat Chakhoyan, and Berislav V. Zlokovic
- Chest** **1529 B₁-Corrected T1 Mapping in Lung Cancer: Repeatability, Reproducibility, and Identification of Histological Types**
Jianqin Jiang, Lei Cui, Yong Xiao, Xiao Zhou, Yigang Fu, Gaofeng Xu, Weiwei Shao, Wang Chen, Su Hu, Chunhong Hu, and Shaowei Hao
- Head and Neck** **1541 Machine Learning-Based Multiparametric Magnetic Resonance Imaging Radiomic Model for Discrimination of Pathological Subtypes of Craniopharyngioma**
Zhou-San Huang, Xiang Xiao, Xiao-Dan Li, Hai-Zhu Mo, Wen-Le He, Yao-Hong Deng, Li-Jun Lu, Yuan-Kui Wu, and Hao Liu
- 1551 Functional Reorganizations Outside the Sensorimotor Regions Following Complete Thoracolumbar Spinal Cord Injury**
Weimin Zheng, Ling Wang, Qian Chen, Xuejing Li, Xin Chen, Wen Qin, Kuncheng Li, Jie Lu, and Nan Chen
- Editorial** **1560 Editorial for "Functional Reorganizations Outside the Sensorimotor Regions Following Complete Thoracolumbar Spinal Cord Injury"**
Gaurang V. Shah
- Thoracic** **1562 Echo Time-Dependent Observed Lung T₁ in Patients With Chronic Obstructive Pulmonary Disease in Correlation With Quantitative Imaging and Clinical Indices**
Simon M. F. Triphan, Oliver Weinheimer, Marcel Gutberlet, Claus P. Heußel, Jens Vogel-Claussen, Felix Herth, Claus F. Vogelmeier, Rudolf A. Jörres, Hans-Ulrich Kauczor, Mark O. Wielpütz, Jürgen Biederer, and Bertram J. Jobst, for the COSYCONET Study Group
- Musculoskeletal** **1572 Quantitative MRI T2 Mapping is Able to Assess Tissue Quality After Reparative and Regenerative Treatments of Osteochondral Lesions of the Talus**
Giulio Rizzo, Alessandro Cristoforetti, Alessandro Marinetti, Marta Rigoni, Leonardo Puddu, Fabrizio Cortese, Giandomenico Nollo, Sabino W. Della Sala, and Francesco Tassarolo
- Editorial** **1583 Editorial for "Quantitative MRI T2 Mapping is Able to Assess Tissue Quality After Reparative and Regenerative Treatments of Osteochondral Lesions of the Talus," Comment on Incorporation of Compositional MRI into Routine Clinical Radiology Practice**
Lina Chen
- 1585 Change in Susceptibility Values in Knee Cartilage After Marathon Running Measured Using Quantitative Susceptibility Mapping**
Ming Zhang, Yufei Li, Ruimin Feng, Zhongzheng Wang, Wenjin Wang, Nan Zheng, Shaobai Wang, Fuhua Yan, Yong Lu, Tsung-Yuan Tsai, and Hongjiang Wei
- Editorial** **1594 Editorial for "Change in Susceptibility Values in Knee Cartilage After Marathon Running Measured Using Quantitative Susceptibility Mapping"**
Hyungseok Jang, Eric Y. Chang, and Jiang Du

- 1596 **Association Between T_2^* Relaxation Times Derived From Ultrashort Echo Time MRI and Symptoms During Exercise Therapy for Patellar Tendinopathy: A Large Prospective Study**
Stephan J. Breda, Robert-Jan de Vos, Dirk H. J. Poot, Gabriel P. Krestin, Juan A. Hernandez-Tamames, and Edwin H. G. Oei
- Editorial** 1606 **Editorial for "Association Between T_2^* Relaxation Times Derived from Ultrashort Echo Time MRI and Symptoms During Exercise Therapy for Patellar Tendinopathy: A Large Prospective Study"**
Mei Wu, Christine B Chung, and Jiang Du
- Neuro** 1608 **Fully Automated MR Detection and Segmentation of Brain Metastases in Non-small Cell Lung Cancer Using Deep Learning**
Stephanie T. Jünger, Ulrike Cornelia Isabel Hoyer, Diana Schaufler, Kai Roman Laukamp, Lukas Goertz, Frank Thiele, Jan-Peter Grunz, Marc Schlamann, Michael Perkuhn, Christoph Kabbasch, Thorsten Persigehl, Stefan Grau, Jan Borggreffe, Matthias Scheffler, Rahil Shahzad, and Lenhard Pennig
- 1623 **Multitask Learning Based Three-Dimensional Striatal Segmentation of MRI: fMRI and PET Objective Assessments**
Mario Serrano-Sosa, Jared X. Van Snellenberg, Jiayan Meng, Jacob R. Luceno, Karl Spuhler, Jodi J. Weinstein, Anissa Abi-Dargham, Mark Slifstein, and Chuan Huang
- 1636 **Gadolinium Clearance in the First 5 Weeks After Repeated Intravenous Administration of Gadoteridol, Gadoterate Meglumine, and Gadobutrol to rats**
Simona Bussi, Alessandra Coppo, Roberta Bonafè, Silvia Rossi, Sonia Colombo Serra, Laure Penard, Miles A. Kirchin, Federico Maisano, and Fabio Tedoldi
- Editorial** 1645 **Editorial for "Gadolinium Clearance in the First 5 Weeks After Repeated Intravenous Administration of Gadoteridol, Gadoterate Meglumine and Gadobutrol to rats"**
Xiaoyun Liang and Chun-Hung Yeh
- 1647 **Individualized Prediction of Early Alzheimer's Disease Based on Magnetic Resonance Imaging Radiomics, Clinical, and Laboratory Examinations: A 60-Month Follow-Up Study**
Lin Tang, Xiaojia Wu, Huan Liu, Faqi Wu, Rao Song, Wei Zhang, Dajing Guo, Junbang Feng, and Chuanming Li
- Editorial** 1658 **Editorial for "Individualized Prediction of Early Alzheimer's Disease Based on MRI Radiomics, Clinical and Laboratory Examinations: A 60-Month Follow-up Study"**
Kohsuke Kudo
- 1660 **Dose-Lowering in Contrast-Enhanced MRI of the Central Nervous System: A Retrospective, Parallel-Group Comparison Using Gadobenate Dimeglumine**
Mark C. DeLano, Maria Vittoria Spampinato, Eric Y. Chang, Richard G. Barr, Richard J. Lichtenstein, Cesare Colosimo, Josef Vymazal, Zhibo Wen, Doris D. M. Lin, Miles A. Kirchin, and Gianpaolo Pirovano
- Editorial** 1676 **Editorial for "Does the Higher Relaxivity of Gadobenate Dimeglumine Permit Gadolinium Dose-Lowering in MRI of the Central Nervous System? Results of a Retrospective, Parallel Group Comparison"**
Emanuel Kanal
- 1678 **Quantification of Regional Cerebral Blood Flow Using Diffusion Imaging With Phase Contrast**
Naoki Ohno, Tosiaki Miyati, Fumiki Sugita, Genki Nanbu, Yuki Makino, Noam Alperin, Toshifumi Gabata, and Satoshi Kobayashi
- Editorial** 1687 **Editorial for "Quantification of Regional Cerebral Blood Flow Using Diffusion Imaging With Phase-Contrast"**
Matthan W. A. Caan and Aart. J. Nederveen
- Letter to the Editor**
-
- 1689 **Higher Electrical Conductivity of Liver Parenchyma in Fibrotic Patients: Noninvasive Assessment by Electric Properties Tomography**
Khin Khin Tha, Yasuka Kikuchi, Kinya Ishizaka, Toshiya Kamiyama, Masami Yoneyama, and Ulrich Katscher