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Biography

Dr. Ruiliang Bai is a tenured Professor at the Department of Brain Science and Brain Medicine, Zhejiang University School of Medicine. Dr. Bai received his bachelor's in Applied Physics from Hunan University, and then completed his Ph.D. and postdoc training with Dr. Peter Basser from National Institutes of Health, USA.

Dr. Bai's primary research lies in the development of non-invasive MRI techniques characterizing the brain circulation system, including the flow and exchange of blood, CSF, interstitial fluid, and intracellular fluid and the clinical transfer of these novel techniques. In particular, he has made significant contribution to the quantitative measurement of aquaporin 4 (AQP4) expression in vivo and transferred this method for precise diagnosis and prognosis of glioma. In addition, he has invented the Vascular Water Exchange Imaging (VEXI), a contrast-agent-free MRI method assessing BBB function, which has been successfully transferred to the study of AD, PD, depression, and many other brain diseases. Recently, Dr. Bai has been working the quantitative MRI methods of CSF circulation, including the inventing of Relaxation-Exchange Imaging (REXI) for the blood-CSF exchange measurement in choroid plexus and the development of dynamic DTI method measuring perivascular CSF motion.

Dr. Bai has published more than 40 first-author or corresponding author scientific papers, including these high-impact journals - *Nature Biomedical Engineering*, *Cell Discovery*, *PNAS*, *Theranostics*, and these top journals in MRI field, e.g., *NeuroImage*, *MRM*, *JMRI*. He was also invited to deliver [a plenary lecture in the 2024 ISMRM annual meeting \(Singapore\)](#) and organize the 2022 biannual meeting of Magnetic Resonance in Porous Media (MRPM) as the co-chair. In addition, he has guided students to give 15 oral presentations at the ISMRM annual meetings, and received the Zhang Xiangtong Outstanding Graduate Thesis Award from the Chinese Society of Neuroscience, and the First Prize in the National College Student Biomedical Engineering Innovation Competition. His research has been supported by several key national grants, including the NSFC Outstanding Young Scholar grant and the Chinese "Brain Initiative" grant.

Vision to Serve OCSMRM

Dr. Bai has been a member of OCSMRM since 2014 and has actively participated in the society's scientific meetings and webinars. Over the years, he has witnessed the society's remarkable growth and has been inspired by many distinguished leaders within the community. Motivated by this, he is now eager to contribute to the advancement of Chinese MR research by actively supporting the society. If elected to the Board of Trustees, he will work closely with fellow board members to: 1) promote MRI technological development and innovation, accelerating China's domestic MRI manufacturing efforts; 2) encourage the innovation and commercialization of domestic MRI techniques, facilitating their integration into clinical practice; and 3) strengthen the society's influence through his established connections with other scientific communities