Special Issue

Understanding Brain Cellular Structure and Brain Diseases Using MRI-Based Methods

Message from the Guest Editor

Over recent decades, a wide variety of magnetic resonance imaging (MRI) and spectroscopy (MRS) techniques and contrasts have been developed to characterize tissue architecture at the microscopic scale, which is orders of magnitude smaller than imaging voxels. Such quantitative techniques usually employ mathematical modelling to link various tissue properties to the MR measurements from contrasts such as diffusion, relaxometry, magnetization transfer, spectroscopy, etc. These approaches have been used to inform us regarding brain cellular structure and alterations caused by a wide range of disorders, such as Alzheimer's disease, Parkinson's disease, dementias, multiple sclerosis, brain tumors, etc. This Special Issue of Brain Sciences aims to provide readers with a compilation of original research, perspectives, and up-to-date review articles focusing on the development and application of quantitative MRI biomarkers related to brain tissue microstructures. We are particularly looking for studies that investigate the role of such biomarkers in the detection, characterization, and follow-up of various brain disorders.

Guest Editor

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You are invited to contribute a research article or a comprehensive review for consideration and publication in *Brain Sciences* (ISSN 2076-3425). *Brain Sciences* is an open access, peer-reviewed scientific journal that publishes original articles, critical reviews, research notes, and short communications on neuroscience. The scientific community and the general public can access the content free of charge as soon as it is published.

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