

Special Issue

Epilepsy Research and Antiepileptic Drugs

Message from the Guest Editor

Epilepsy is a group of non-communicable neurological disorders characterized by recurrent epileptic seizures. Animal models are mainly used to study the mechanisms of epilepsy, brain electrophysiology, and behavioral changes and to screen new antiepileptic drugs. Epilepsy is accompanied by active free radical reactions, so scavenging free radicals and blocking free radical reactions open up a new way for the treatment of epilepsy. Recent antioxidant agents are studied to develop new types of antiepileptic drugs that protect against neuronal damage originating from seizure onset. In addition, α -amino-3-hydroxy-5-methyl-4-isoxazole-propionic acid (AMPA) receptors mediate fast excitatory synaptic transmission in epilepsy-related brain regions and play a role in the occurrence of epilepsy and epilepsy-induced brain damage. This Special Issue, titled "Epilepsy Research and Antiepileptic Drug Development", will focus on fundamental research of epilepsy animal models and antiepileptic drug development research. Experimental papers sharing new data and up-to-date review articles are welcome.

Guest Editor

Prof. Dr. Yuto Ueda

Division of Neuroscience, Graduate School of Medicine, Mie University
Tsu, Mie 514-8507, Japan

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4052 Basel, Switzerland
Tel: +41 61 683 77 34
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Prof. Dr. José L. Quiles

Department of Physiology, Institute of Nutrition and Food Technology
"Jose Mataix", Biomedical Research Center, University of Granada,
Avda. Conocimiento s/n, 18100 Armilla, Granada, Spain

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