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# **Brain Asymmetry in Evolution**

Guest Editor:

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### Message from the Guest Editor

Asymmetrical aspects of brain morphology and function have been shown in higher mammals, including primates and carnivores, as species-related, sex-related, and individual diversities, and are associated with cognition, emotion, language, preference of hand/paw use, and so on. A disturbance of the brain lateralization is involved in human neurodevelopmental disorders with cognitive impairments and/or social deficits such as autism, schizophrenia, dyslexia, attention deficit hyperactivity disorder, and specific language impairments. Asymmetric development may be essential to the evolution of the brain for acquiring higher and/or more diverse function. The purpose of this Special Issue on "Brain Asymmetry in Evolution" is highlighting morphological and functional lateralization of the brain in various species of mammals for understanding the evolution of the brain. This Issue is also interested in the sexual dimorphism of brain asymmetry, brain function as relevant to motor and behavioral lateralization, and altered brain asymmetry in diseases and/or by gene manipulations.









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### **Editor-in-Chief**

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### Message from the Editor-in-Chief

Symmetry is ultimately the most important concept in natural sciences. It is not surprising then that very basic and fundamental research achievements are related to symmetry. For instance, the Nobel Prize in Physics 1979 (Glashow, Salam, Weinberg) was received for a unified symmetry description of electromagnetic and weak interactions, while the Nobel Prize in Physics 2008 (Nambu, Kobayashi, Maskawa) was received for the discovery of the mechanism of spontaneous breaking of symmetry, including CP symmetry. Our journal is named *Symmetry* and it manifests its fundamental role in nature.

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