Special Issue

Advances in LRRK2 and Other Pathological Mechanisms of Parkinson's Disease

Message from the Guest Editor

Leucine-rich repeat kinase 2 (LRRK2) is one of critical genetic cause of Parkinson's disease (PD), and LRRK2 harbors the GTPase domain and kinase domain. Two enzymatic activities in LRRK2 have been considered culprits of LRRK2-mediated PD pathogenesis. Abnormalities of LRRK2 caused by mutation and cellular stimulus via various brain cell types is related to the pathogenesis and progression of PD. However, the normal function of LRRK2 that maintains the cellular function in healthy condition is still unknown. In this Special Issue, the normal function of LRRK2 and other critical pathogenic mechanisms of LRRK2 will be discussed. Recently, upregulated LRRK2 kinase activity reducing the protective role of rat primary astrocyte was reported, as was a lack of LRRK2 substrate-induced distinct lysosomal dysfunction and ER-Golgi networks. We believe that the studies of LRRK2 related to the normal cellular function and novel pathomechanisms will notably contribute to this Special Issue's success.

Guest Editor

Prof. Dr. Dong Hwan Ho

InAm Neuroscience Research Center, Sanbon Medical Center, College of Medicine, Wonkwang University, 321, Sanbon-ro, Gunpo-si 15865, Republic of Korea

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Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
brainsci@mdpi.com

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Editor-in-Chief

Prof. Dr. Stephen D. Meriney
Department of Neuroscience, University of Pittsburgh, Pittsburgh, PA 15260, USA

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