

Special Issue

Recent Drug Design Strategy of the Design of Molecules against Alzheimer's Disease and Parkinson's Disease

Message from the Guest Editors

Dear Colleague, Alzheimer's disease (AD) and Parkinson's disease (PD) are the most prevalent of the heterogeneous and complex neurodegenerative disorders (NDDs) that largely affect the elderly patients. Their pathogenesis has been attributed to a variety of genomic, epigenomic, and environmental factors. Mounting evidence indicates that drugs targeting a single pathway cannot adequately address the multifactorial nature of NDDs. Oxidative stress, mitochondrial dysfunction, and imbalances in the levels of enzymes that control the metabolism of biogenic amines may promote NDD progression. On the other hand, several molecular scaffolds have been designed to simultaneously target entities such as choline esterase (ChE), monoamine oxidases (MAOs), and α -site amyloid precursor protein cleaving enzyme 1 (α -secretase, BACE-1), to retard NDD progression. Topics to be covered include the following:

- Multi-target design of the molecules for AD;
- Multi-target design of the molecules for PD;
- Natural isolates for AD and PD;
- Synthesis and Biological evaluation for the treatment of AD and PD.

Guest Editors

Dr. Bijo Mathew

Department of Pharmaceutical Chemistry, Amrita School of Pharmacy, Amrita Vishwa Vidyapeetham, AIMS Health Sciences Campus, Kochi 682 041, India

Prof. Dr. Orazio Nicolotti

Dipartimento di Farmacia-Scienze del Farmaco, Università degli Studi di Bari "Aldo Moro", Bari, Italy

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Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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Prof. Dr. Thomas J. Schmidt

Institute of Pharmaceutical Biology and Phytochemistry, University of
Münster, Corrensstrasse 48, D-48149 Münster, Germany

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