Tentative Outline

Special Issue for CNS & NEUROLOGICAL DISORDERS-DRUG TARGETS

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Current Perspective on Anti-Neurodegenerative Disorder’s Investigation: Computational Approaches to Clinical Research

Aims & Scope

The prevalence of neurodegenerative diseases and other metabolic syndrome is of great concern globally. Moreover, their incidence manifest themselves at CNS level is increasing preferably in technological advanced countries because of number of factors such as contaminants and pollution as environmental factors, chronic oxidative stress, lifestyle disorders like alcohol, smoking, diet, as well as alterations in the immune system. Since the treatment strategies are limited and frequently only provide symptomatic relief through the use of drugs that modulate neurotransmitter disturbances. Thus, it becomes necessary to find more effective therapeutic agents to treat neurological diseases. This thematic issue aims at summarizing recent research findings concerning pathophysiological mechanisms, new findings related to synthetic and phytochemicals which are endowed with the ability to have a remarkable therapeutic potential against such neurodegenerative diseases. In addition, we also plan to cover various in-silico virtual screening approaches, computational techniques, ADMET (absorption, distribution, metabolism, and excretion - toxicity in pharmacokinetics), preclinical and clinical trials studies. Although, the insight in to the mechanism of action of such compounds is still not very clear.

The work will not only strengthen the understanding of multidisciplinary experts from academia, research and industry to communicate their viewpoints in this special issue of CNS & Neurological Disorders-Drug Targets but also simultaneously investigate a link between natural and synthetic bioactive compounds with regards to their composition, structure and therapeutic efficacy leading a passage for new drug development.

Keywords

Enzymatic inhibitors, Computational Drug design, Natural products, Central Nervous System, Neurodegenerative Disorders; mental diseases; depression; Parkinson’s disease; Alzheimer’s disease.

Subtopics

- Synthesis, Isolation, characterization by spectroscopic techniques of compounds with pharmacological application as enzymatic inhibitors related with either mental or motor diseases
- Computational approaches for designing of therapeutic agents for management of neurodegenerative disorders
- Recent development of new technologies and drug design strategy for the CNS acting agents
- Reviews of various class of potent CNS acting agents
- In-silico approaches: Current challenges in treatment of Alzheimer's disease
- Medicinal chemistry aspects in management of Parkinson's disease
- Role of natural compounds to combat challenges related to neurodegenerative disorders

Schedule

Manuscript submission deadline: November 2016
Peer review due: December 2016
Revision due: January 2017