

THEMATIC ISSUE

An Approach to the Theoretical and Experimental Design of Fused Compounds in the Treatment of Mental and Motor Dysfunctions

Aims & Scope:

Current Pharmaceutical Design publishes timely in-depth reviews and research articles from leading pharmaceutical researchers in the field, covering all aspects of current research in rational drug design. Each issue is devoted to a single major therapeutic area guest edited by an acknowledged authority in the field.

Each thematic issue of Current Pharmaceutical Design covers all subject areas of major importance to modern drug design including: medicinal chemistry, pharmacology, drug targets and disease mechanism.

Abstract:

In our society many compounds from natural sources are available either in nature or commercialized by the pharmaceutical industry that multiple therapeutic actions have developed in the treatment of diverse diseases and dysfunctions on the Central Nervous System (CNS). Such drugs have served for the partial or permanent treatment of behavior diseases such as depression or anxiety, and to improve motor dysfunctions like Parkinson or chronic neurodegenerative disease like Alzheimer's disease. Such substances have been assessed with wide effectiveness but varied selectivity. This fact can limit the medical application of a drug affording a low therapeutic answer from patient. Until now the medical treatments that involve either achiral substances or racemic mixture have introduced multiple effects, some of them undesirable, which affect the normal therapeutic effect and even can vary the drug doses unnecessarily.

Simple and complex fused heterocycle and cyclic hydrocarbon structures have received attention where cost and questioned effectiveness alert us every day. At present, synthetic methodologies have been developed for the preparation of chiral compounds as well as complex heterocycles and hydrocarbon-cycles derived from marine and terrestrial natural products. In order to assure a high selectivity from the tested drug, molecular modeling with well-known biological receptors has been extensively used with an important acceptance and obtaining designed drugs with high biological reactivity in certain mental dysfunctions.

Due to the possibility that the above mentioned substances could generate therapeutic alternatives to favor less invasive treatments with permanent effect in the CNS, our proposal includes novel research and extensive reviews about new ways to combat these behavior and motor diseases necessary to highlight it.

Therefore, the aim of this special issue is to compile diverse reviews and research articles for future therapeutic applications by using designed heterocyclic and cyclic hydrocarbon compounds and inspired either from natural sources. Thus, the inclusion of synthesis, isolation, theoretical studies of structure-activity relationship and pharmacological assays for treating mood and motor dysfunctions are welcome. The critical and objective vision of these contributions will help us to understand and emphasize the advances in this field of the mental diseases and motor disorders.

Guest Editor:

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Important Dates

Submission deadline:

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Tentative publication date:

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