Tentative Outline

Special Issue for CNS & NEUROLOGICAL DISORDERS-DRUG TARGETS
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NEURODEGENERATION, METABOLIC SYNDROME, OXIDATIVE STRESS, DRUG DESIGN AND DEVELOPMENT: CLINICAL IMPLICATIONS

Aims & Scope:

The incidence of neurodegenerative diseases and metabolic syndrome that manifest themselves at the central nervous system level is increasing worldwide, and especially so in technologically advanced countries due to a number of co-factors. Among these are environmental factors such as contaminants, pollution and chronic oxidative stress which induce accumulative changes when combined with lifestyle disorders like alcohol, smoking, diet, as well as alterations in the immune system. When taken all together, these factors seem to represent the major etiopathogenic determinants for the development of metabolic and neurodegenerative diseases, which are in many cases connected when one pathology contributes to the development of another.

Therefore, in the proposed special issue for CNS and Neurological Disorders - Drug Targets, entitled “Neurodegeneration, Metabolic Syndrome, Oxidative Stress, Drug Design and Development: Clinical Implications”, our aim is to bring together updates in the understanding of pathophysiological mechanisms and the development of novel pharmaceuticals to treat degenerative diseases including neurodegenerative disorders, dementia, diabetes, obesity, and immune disorders that affect the central nervous system. We also plan to cover novel biomarkers' research as well as development of novel animal models for testing the efficacy of new drugs in preclinical studies.

Keywords:

Neurodegeneration, metabolic syndrome, oxidative stress, drug design, central nervous system.

Subtopics:

- The unsuspected intrinsic property of melanin to dissociate the water which can be used as a new and effective strategy for the treatment of CNS diseases
- Conjugates of gamma-carbolines and phenothiazine as potential multifunctional agents for neurodegenerative disease treatment
- Effects of alterations in glucose metabolism on cognition: A possible link between diabetes and dementia
- Breakdown of the insulin system in brain; Link from Alzheimer disease to type 3 diabetes
- A synopsis on the linkage between age-related dementias and vascular disorders
- Relationship between metabolic disorders under the lens of CNS disorders
- Metabolites of the gut-brain axis: potential targets for treatment and drug design
- Animal models of ophthalmic diseases: the term rabbit models in drug development
- Blood-brain barrier: cell culture models of permeability in drug development
- Focused design of novel bifunctional (biligan) positive modulator of AMPA receptors

Schedule:

Manuscript submission deadline: April, 2015
Peer review due: June, 2015
Revision due: July, 2015
Notification of acceptance by the Guest Editor: July, 2015
Final Manuscript Due: August, 2015