BioMed Research International

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Special Issue on

Novel Therapeutic Strategies for Dementia and Neurodegenerative Disorders

CALL FOR PAPERS

CNS disorders represent the third cause of death in developed countries, after cardiovascular disorders and cancer. Stroke and dementia are major problems of health in people over 60 years of age, with a great economic impact and disability in our society. Furthermore, these disorders, together with other CNS disorders of earlier onset such as demyelinating disorders and motor neuron disease, are showing an alarming increase in their prevalence and incidence. Most neurodegenerative disorders are polygenic, multifactorial/complex disorders in which multiple genomic defects distributed across the human genome, in conjunction with environmental factors and epigenetic phenomena, appear to be involved in their pathogenic cascades leading to premature neuronal death. Over the last 20 years, an overwhelming amount of molecular information has allowed us to begin to understand the molecular basis of many of these diseases. However, our ability to develop new modalities of therapeutic intervention has not kept pace with growth. In fact, the vast majority of developed drugs are largely ineffective and their cost-benefit is almost always unbalanced. For instance, in the case of Alzheimer's disease, over 1000 new molecules have been tested for the past few years, but no new drugs for dementia have been approved by the FDA during the last decade.

In the last decades, novel procedures associated with Genomic Medicine are helping to understand the pathogenesis of neurodegeneration and dementia as well as to improve early diagnosis with accurate biomarkers and to optimize therapeutics addressing causative factors.

We invite investigators to contribute original research articles as well as review articles that will stimulate the continuing efforts to understand the molecular pathology underlying age-related neurodegenerative disorders (Alzheimer's disease, CNS amyloidopathies, tauopathies, brain atherosclerosis and associated cerebrovascular disorders with a neurodegenerative component, Parkinson's disease and related disorders, Huntington's disease, demyelinating disorders, and motor neuron disease), the identification of reliable biomarkers for an early diagnosis, the development of strategies to treat these conditions, and the evaluation of outcomes. We are particularly interested in articles describing potential preventive strategies, new targets for therapeutic intervention, immunotherapy, stem cell therapy, epigenetic drugs, new modalities of biomarkers for the clinical characterization of specific phenotypes, and measuring outcomes from experimental and clinical studies.

Potential topics include, but are not limited to:

- Novel targets for the treatment of dementia and age-related neurodegenerative disorders
- Pharmacological treatments in vascular dementia
- New cholinesterase inhibitors and related drugs
- Secretase inhibitors
- Preventive strategies
- Immunotherapy for Alzheimer's disease
- Amyloid-related vaccines
- Tau-related vaccines
- Pharmacogenetics
- Epigenetic drugs
- Combination therapy
- Multifactorial interventions in dementia
- Biomarkers for monitoring drug efficacy and safety
- Proteomics and metabolomics in drug development
- Natural compounds with antidegenerative effects
- Stem cell therapy

Authors can submit their manuscripts via the Manuscript Tracking System at http://mts.hindawi.com/submit/journals/bmri/geriatrics/nts/.

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