

## **CURRENT CNS & Neurological Disorders - Drug Targets**

### **Proposal for Thematic Issue**

#### **Tentative Outline**

#### **Tentative Title: Current Trends in the management of Alzheimer disease**

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#### **Aim and Scope:**

Alzheimer disease (AD) is a leading cause of progressive, irreversible neurodegenerative dementia disorder and most common neurodegenerative disease. It is expected to affect thrice the population currently affected by 2050. It is manifested by abnormal accumulation of tau and amyloid- $\beta$  proteins resulting in transmuted cellular signaling cascades triggering synaptic, hippocampal neuronal degeneration. AD may be classified as early onset (familial AD) and late onset (sporadic AD). Whereas the former affects people in the age group of 30-60 years, the latter is known to be more prevalent in persons over 65 years of age. Familial AD is associated with mutations in amyloid precursor protein (APP) or presenilin (PS1 and PS2 genes). Sporadic AD is associated with mutations in apolipoprotein E4 isoform (apo E4) IR dysfunction, etc. Clinical interpretation of AD involves deterioration in capabilities of memory, language, judgement, calculation and behaviour. AD is also known to be associated with disruption of mitochondrial function, homeostasis of calcium, disturbed hormonal levels coupled with increased oxidative stress and neuroinflammation. The lack of availability in understanding the pathology, the existing treatment approaches are symptomatic targeting amyloid protein, enhancing memory, inhibiting the enzyme (BACE1) involved in cleaving the amyloid precursor protein or acting in suppressing the biomarkers by inhibiting oxidative stress causing the mitochondrial dysfunction neuronal cellular death like mechanisms.

The papers assimilated for this special issue try to find newer avenues for management of Alzheimer's disease.

**Keywords:** Alzheimer's disease, Huperazine, tau proteins, neuronal degeneration, amyloid beta protein, artificial intelligence, epigenetics, Neuronal correlates, biochemical markers, restorative targets, The Neurofilament light protein (NfL), Artificial intelligence.

#### **Important Dates:**

**Manuscript Submission deadline:** 15 October 2019

**Peer Review Due:** 15 November 2019

**Revision due:** 15 December 2019

**Announcement of acceptance by the guest editors:** January 2020

**Final manuscript due:** 31 January 2020.

