

Tentative Outline
SPECIAL ISSUE FOR CURRENT ALZHEIMER RESEARCH

Title of the Special Issue: Systems Genetics of Alzheimer's disease: From GWAS to Disease Pathways

Guest Editor: Prof. Keshen Li
(Stroke Center, Neurology & Neurosurgery Division, The Clinical Medicine Research Institute & The First Affiliated Hospital, Jinan University, Guangzhou, China)

Aim and Scope:

Alzheimer's disease (AD) is the most common dementia and neurodegenerative disease in the elderly. AD is highly heritable and complex. In recent years, genetic studies especially genome-wide association studies (GWAS) and next-generation sequencing have identified several AD risk variants and pathways associated with the potential pathogenesis and genetic mechanisms of AD. Until now, more than 20 risk loci that affect AD have been identified. These loci are estimated to explain about 28% of the heritability of liability, 30% of familial risk, and over 50% of sibling recurrence risk of developing AD. Despite these successes, the majority of genetic risk remains to be further identified. The identification of the causative variants or mutations remains challenging and the molecular mechanisms are still rarely characterized. In the post-genome era, the major challenge is to mine novel disease risks from multi-level omics data using system biology methods, which may expand our knowledge of the causes of AD. Therefore, we propose a Special Issue of the topic 'Systems genetics of Alzheimer's disease: From GWAS to disease pathways'. This special issue will focus on the mechanism of genesis and development of AD, as well as valuable clues for the development of novel therapeutic approaches of AD. We believe the systems genetics will help us move from disease risk loci to disease aetiology. This Special Issue welcomes reviews and original papers covering recent genetic research on AD using system biology methods.

The subtopics include, but are not limited to:

- Genetics
- Genomics
- Metagenomics
- Next-generation sequencing
- Chromatin studies
- Epigenomics
- Proteomics
- Metabolomics
- Integrative biology
- Molecular function
- Imaging genomics

Schedule:

Manuscript submission deadline: April 30, 2019

1st round of Reviewing due: May 30, 2019

Revision due: June 15, 2019

Notification of acceptance by the Guest Editor: June 30, 2019

Submission date of the complete issue due: July 30, 2019