Tentative Outline

SPECIAL ISSUE FOR CARDIOVASCULAR & HEMATOLOGICAL DISORDERS-DRUG TARGETS (CHDDT)

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Title of the Special Issue: "Cardiovascular dysfunctions: a risk factor for the development of prion and prion-like diseases?"

Aim & Scope:

Growing evidence suggests that cardiovascular dysfunctions may represent a risk factor for the development of Alzheimer's disease (AD). They may facilitate the conversion from mild cognitive impairment (MCI) to AD. For example, an abnormal accumulation and aggregation of amyloid beta (Aβ), the hallmark of AD, in the blood stream in presence of elevated levels of fibrinogen may increase blood viscosity affecting its normal flow and clotting, due to the formation of abnormal fibrin clots. Enhanced formation of structurally abnormal fibrin clots can induce changes in vascular permeability, which is associated with reduction in short-term memory, a typical symptom of AD. Because fibrinogen interacts also with both cellular prion protein (PrP^{C}) and its pathological form (PrP^{Sc}; the hallmark of prion diseases) and Aβ shares common features with the self-propagation and spreading characteristics of PrP^{Sc} (prion-like mechanism), vascular dysfunctions could be potential risk factor also for increasing prion diseases onset or progression.
However, the basic mechanism of this connection/ interaction between cardiovascular dysfunctions and increasing risk of developing such diseases is still poorly explored. Given the importance of this issue for an early diagnosis, therapy or prevention of prion and prion-like diseases such as AD, Parkinson's disease (PD) and Amyotrophic lateral sclerosis (ALS), it needs to be investigated in depth.

Key words: Cardiovascular disorders; Alzheimer's disease; Parkinson's disease; Prion diseases; Amyotrophic lateral sclerosis; Prion-like diseases; Amyloid beta; Prion protein; Risk factor

Tentative Titles/subtopics:

Potential topics include, but are not limited to:

- **Mechanistic pathways of vasculo-neuronal dysfunctions in AD, PD or ALS;**
- **Cardiovascular dysfunctions and human prion diseases;**
- **Prevention strategies;**
- **Diagnostic and therapeutic implications;**
- **Epidemiological analysis about prevalence of the incidence of AD, PD, ALS or prion diseases in individuals with cardiovascular disorders;**
- **Epidemiological analysis about prevalence of the incidence of AD, PD, ALS or prion diseases in treated and untreated individuals for cardiovascular disorders.**

Schedule:

Manuscript submission deadline: February 01, 2018

I° round of Reviewing due; March 01, 2018

Revision due: March 20, 2018

Notification of acceptance by the Guest Editor: March 30, 2018

Submission date of the complete issue due: April 01, 2018