

Tentative Outline Special Thematic Issue for Current Pharmaceutical Design

“Metabolic Syndrome impact on molecular, and cellular functions in patients affected by heart failure: therapeutic, diagnostic and clinical applications”

Guest editor: Prof. Dr. Celestino Sardu

Aims Scope:

Metabolic syndrome (MS) and heart failure (HF) are dramatically increasing in prevalence worldwide. Despite the significant advances in therapies and diagnosis, HF is one of the principal causes of morbidity, mortality and health expenditures in adult and elderly patients. Metabolic syndrome is defined by the presence of well known cardiovascular (CV) risk factors, including high blood pressure, insulin resistance (IR), high triglyceride levels, low HDL levels, and obesity. It has been extensively shown that MS patients have increased prevalence of coronary artery disease, acute myocardial infarction, and HF. In this setting, MS patients have a higher risk of mortality and hospitalization for HF than subject with no MS.

However, MS and HF are two complex multi factorial diseases, that can frequently coexist and strongly amplify each other, suggesting overlapping physiological and molecular mechanisms contributing to the common disease state. In fact, all MS risk factor and related pathological

conditions, as hypertension, diabetes, obesity and dyslipidemia may result in organ and tissue damage, at the end leading to heart disease, in both animal models and patients.

Moreover, in this Special Issue we would try to bring the two major diseases together by focusing on common molecular pathways, mechanisms and subsequently on clinical outcomes.

We may speculate that, the identification of mechanisms underlying the pathophysiology of MS and its CV complications may represent an area of significant research efforts, attracting scientists and clinicians from a diverse range of fields including biochemistry, pharmacology, internal medicine, cardiology and geriatrics among several others. Our Special Issue hypothesis is that, the final goal in the near future will be to find treatments better tailored to MS patients with HF using a personalized–medicine approach.

Therefore, here we invite investigators to submit to this Special Issue both original research articles, clinical trials and reviews having the purpose to address novel diagnostic tools or new therapeutic treatments for MS and HF.

Keywords: Metabolic Syndrome, heart failure.

Subtopics:

- New findings in the pathogenesis of the cardiac complications in MS;
- New diagnostic tools for the early diagnosis of HF in patients with MS: biomarkers and imaging;
- New therapeutic approaches for the MS: gene therapy, exosomes, miRNA, incretins, bioengineering approaches, etc;
- Prevention, lifestyle changes and dietetic treatment;

- Cardiomyopathy in patients with MS: different phenotypes and clinical outcomes;
- MS and its consequences during aging: multidimensional therapeutic approach;
- Cerebrovascular complications of MS in patients with HF: from mild cognitive impairment to dementia;
- MS-induced systemic and tissue-specific damage;
- Cardio-renal syndrome in patients with MS: pathophysiology, diagnosis, treatment and clinical outcomes.
- Different exercise training protocols in patients with MS and HF;
- Clinical characteristics and outcomes of patients with HF ad MS in different demographic and social settings.

Schedule:

Manuscript submission deadline: September 2019

Peer Review Due: October 2019

Revision Due: November-December 2019

Announcement of acceptance by the Guest Editor: January 2020

Final manuscripts due: January 2020

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