Tentative Outline

Special Issue for Current Medicinal Chemistry

Guest Editor: Gerasimos Siasos

The role of endothelium in cardiovascular diseases: New insights

Aims & Scope:

Endothelium has an integral role in the maintenance of vascular tone and structure. Cardiovascular risk factors induce endothelial dysfunction through several complex mechanisms, which converge in decreased production and local bioavailability of nitric oxide (NO). As a consequence, local vasodilator properties in response to stimuli, such as reactive hyperemia and increased shear stress, are diminished. Endothelial dysfunction has a central role in atherosclerosis progression and is a well-established risk factor for future cardiovascular events. Moreover, endothelial dysfunction may precipitate thrombotic events by increasing platelet reactivity through inadequate production of nitric oxide and prostacyclin, which counteract platelet aggregation. Endothelial function can be evaluated through several invasive and non-invasive techniques in the clinical setting. A common characteristic of these techniques is the measurement of vessel response to endothelial-dependent stimuli, mainly reactive hyperemia or vasoactive agents. In the context of this evidence, in this full-length ‘Hot Topic’ thematic issue we will discuss the role of vascular endothelium in cardiovascular disease and we will present all the new current evidences and data concerning the role of endothelial function measurement in the prognosis, progression and treatment of cardiovascular disease.

Keywords: Endothelium, nitric oxide, atherosclerosis, coronary syndromes, antioxidants.

Sub topics:

Vascular endothelium and nitric oxide production

The role of endothelium in premature atherosclerosis

Coronary endothelial dysfunction and acute coronary syndromes

Endothelial function measurement: Novel methods and clinical implications

Modulation of the vascular endothelium functioning by diet: The role of antioxidants

Endothelial function in hyperlipidemia: Molecular mechanisms and clinical implications

Endothelium and coronary artery disease: New insights and potential therapeutic approaches

Endothelium as therapeutic target in diabetes mellitus: From basic mechanisms to clinical practice

Endothelium and arterial hypertension

Endothelium in aortic disease: new insights

Flow mediated dilation and cardiovascular prognosis: A systemic review and meta-analysis

Schedule:
May 2018