Tentative Outline

Special Issue for Current Medicinal Chemistry

Guest Editor: Angela Messina

Voltage Dependent Anion Channel isoform 1 (VDAC1) as a pharmaceutical target

Aims & Scope:

The aim of the thematic issue is to target the function of the Voltage Dependent Anion Channel isoform 1 (VDAC1) by putative drugs. VDAC1 is the main channel of the outer mitochondrial membrane (OMM) where it acts as the master regulator of metabolic and energetic functions of mitochondria, controlling molecular exchange between organelle and cytoplasm. Strong evidences suggest a crucial role of mitochondria or VDAC1 in many pathological processes such as cancer, neurodegenerative or vascular diseases. In this issue we will review the actual and perspective pharmacological molecules having VDAC1 as therapeutic target, in order to highlight the most promising treatments of associated diseases.

Keywords: VDAC, protein aggregation, mitochondria, apoptosis, neurodegenerative diseases, cancer, vascular diseases.

Sub topics:

1. Drugs affecting cytoprotection
2. Molecules targeting mitochondrial physiology
3. Compounds affecting cell proliferation
4. Protein aggregation and diseases
5. Anti-apoptotic strategies

Schedule:

November 2016