Flavonoids as promising therapeutics of the future: A hub for cells survival or death

Aims & Scope:

Flavonoids are one of the most abundant class of secondary metabolite found in various fruits and vegetables, as well as in many plant derived beverages. Epidemiological evidences suggest that their regular uptake can increase wellness of organisms and can actively modulate the intracellular signal cascade. In fact, although great attention has been mainly focus on their antioxidant activity, these compounds and their metabolites show promising and hidden aspects, which can be utilize to promote cell survival or death. Many of them are also characterized by well-defined target of action. They have inhibitory or stimulatory effects on metabolic key enzymes influencing signalling pathways, cellular functions and gene expressions. These elements make them a very promising element to develop strategies for the prevention and treatment of pathological conditions. The final aim of this issue is to discuss the challenges of flavonoids utilization in different pathological conditions, as well as to review the mechanism of action useful to proposed valuable strategies for future therapies, characterized by high selectivity towards biological targets and low side effects.

Keywords: Flavonoids, Enzyme modulation, Phytochemistry, Gene expression, Natural Products, Pharmacology, Pharmacognosy, pathological conditions

Sub topics:

- Neuroprotective effects of flavonoid compounds on neuronal death associated to Alzheimer disease,
- Antimycotic activity of flavonoids: Impact of fungal genetic diversity on in-vitro response
- Rutin as protective agent: from bench to bedside
- Risk-assessment of isolated isoflavones intake on human health
- HMG-CoA reductase inhibition by flavonoids derivatives
- Flavonoids interactions with oncologic therapy
- Protective effects of caffeine in several neurodegenerative diseases

Tentative Publication Date: August 2017