

## **Tentative Outline**

**Special Issue for Current Medicinal Chemistry**

**Guest Editor: Dr. Mohammad Amjad Kamal**

**Co-Guest Editor: Dr. Md. Asaduzzaman Khan**

### **Targeting cellular signaling pathways in cancer by natural compounds**

#### **Aims & Scope:**

The fundamental basis of cellular and physiological function is cell signaling. Numerous signaling molecules (mostly proteins and ions) are involved in cellular communication and regulating the activation or deactivation of target genes or proteins, which are involved in cellular functions. Cell signaling is a strictly regulated process, and any abnormalities in signaling pathways might cause cellular dysfunction, which causes disease. For example, over-activation of kinase enzymes is associated with carcinogenesis. Controlling the abnormal activities of signaling pathways is one of the major options for drug development to treat diseases.

Natural products, like polyphenols, quinones, polyphenols, flavonoids, which possess redox potential, are the best sources for drug development. Through the oxidation or anti-oxidation, these compounds interfere with cellular functions, and numerous studies have found that these natural oxidants/antioxidants can reverse the abnormal cellular signaling.

In modern biomedical science, numerous studies are being conducted on cell signaling pathways and natural products with a specific aim to develop target-specific drug development for treating life-threatening diseases like cancer, cardiovascular complications, diabetes, neurodegeneration etc. A special issue on "Targeting cellular signaling pathways by natural oxidants/antioxidants" will attract potential scientists in the field to publish their outstanding works. We mostly welcome review articles; however, research papers are also welcome (depends upon the Journal policy).

#### **Keywords:**

Cellular signaling, cancer, natural products, target proteins, molecular mechanism, antioxidants

#### **Subtopics:**

- Papers focusing on specific target proteins (or signaling pathway) by certain natural products.
- Papers focusing on specific natural product targeting different target proteins (or protein family or signaling pathway).
- Papers focusing on the molecular mechanism by which the natural products exert their function via oxidation or antioxidation.

**Schedule:**

Tentative Date of Issue Submission: 15th October 2020