Tentative Outline

Title: Small natural and synthetic molecules for therapeutic use

Guest Editors: Dr. Juan Bautista De Sanctis and Dr. Viswanath Das

Scope of the Thematic Issue: It is planned in the broad field of small natural and synthetic molecules for therapeutic use and drug design. Natural products are an excellent source of bioactive compounds and have found a place in the history of mankind for the treatment of various human diseases. Some of the well-known drugs, such as penicillin, morphine, paclitaxel, avermectins, and artemisinin find their origin in natural products. Over the past 2 decades, more than one-third of therapeutic agents that were approved by the USA Food and Drug Administration are either directly derived from or inspired by natural products. Nevertheless, the increase in incidences of communicable and non-communicable diseases remains a major public health challenge globally and demands the finding of effective candidate drugs for their treatment. To this end, natural products are an endless treasure trove of biomaterials that can help in the search and design of pharmacologically important novel drug leads.

Keywords: natural products; bioactive small molecules; drug design; principal component analysis; chronic diseases; cancer; neurodegenerative diseases; infectious disease.

Topics should include
1. Structures
2. Biological activity
3. Mechanisms involved

Revision due: March 2020.
Final manuscripts due: April 1, 2020

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