Tentative Outline

Special Issue for Current Topics in Medicinal Chemistry

Anti-infectious drugs: Approaches and Achievements

**Guest Editor(s):** Dr. Brijesh Rathi, Dr. Sumit Kumar, Dr. Yogesh Kumar and Prof. Ramesh Chandra

**Aims & Scope:**
Diseases triggered by viruses, bacteria, fungi and parasites (signify actual health threats to the human population, causing all together millions of deaths every year and much more non-lethal severe sicknesses. The increasing drug resistance of the frontline treatments remains a major challenge and vaccine is indefinable for the infections. Therefore, discovery of new drug molecules based on new targets/mechanisms of action is in high demand for the treatments and management of infectious diseases. The purpose of this special issue proposal is to summarize the recent advances in the field of drug discovery and development - new potential anti-infectious drugs against pathogenic viruses, bacteria, fungi and parasites.

**Keywords:** Infectious diseases, Drug resistance, Molecular drug targets, Drug design

**Subtopics:**
The subtopics to be covered within this issue are listed below:

- Parasitic/mycobacterial/microbial/viral drug targets - biochemical aspects.
- Therapeutic and diagnostic applications of small molecules at infectious diseases.
- Applications of polymeric therapeutics/peptide-based molecules for infectious diseases.
- Computational approaches to understand binding affinity of drug molecules.
- New therapeutic policies and emerging targets for the treatment of infectious diseases.
- Development of synthetic processes for small organic molecules i.e. catalytic applications.
- drug discovery and drug development.
- Validation of proteins (e.g., proteases and kinases) as drug targets for parasitic infections.
- Design of inhibitors targeting the active sites of tropical parasitic proteases.
- New approaches adopted for the development of new antiparasitic/anti-microbial/antiviral molecules.
- Hit-to-Lead approaches to support drug discovery and development.
- Rational design of drugs - structure-activity relationship (SAR).

**Schedule:**

- Manuscript submission deadline: June 20, 2018
- Peer Review Due: July 15, 2018
- Revision Due: August 10, 2018
- Announcement of acceptance by the Guest Editor(s): August 14, 2018
- Final manuscripts due: August 20, 2018

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