Tentative Outline

Special Thematic Issue for Current Topics in Medicinal Chemistry

Coordination Compounds as Drug: Synthetic and Structural Advancements as Antimicrobial to Anti-neurodegenerative Agents.

Guest Editor: Dr. Abhay Nanda Srivastva

Aims & Scope:

Chemical moieties having drug-like properties are of interest and need since the starting of human civilization. A drastic increase in various kinds of pathogens, mutation in genomes and other disease developing factors creates a challenge before the researchers to make safer the world community by discovering novel, more potent and cost effective molecules of medicinal values. Along with different class of drugs, metal based molecules are being developed and studied by the global researchers for their promising medicinal application to cure and control various kind of common to lethal human health problems. Coordination compounds, designed with metal ions and potent organic/inorganic ligands, have been found potential molecules as anticancer, antimicrobial, antiviral, anti-diabetic, anti-neurodegenerative etc. The entrance of significant number of coordination compounds in clinical trial for many diseased states of human body and their approval as medicine enforce the chemists to look in depth of medicinal preeminence of these metal based moieties. Even though so many notable therapeutic properties of coordination compounds have been explored, the pharmacologists are still dependent on organic moieties as drugs mostly. In this thematic issue, current research and profound review articles will be collected and compiled from eminent researchers with the aim to drag the attention of medicinal chemists towards the importance of coordination compounds as an effective therapeutic tool against many drug resistance microbes and lethal diseases.

Keywords: Metallo-drugs, Antimicrobial drug resistance, Anti-cancer agents, Anti-diabetic agents, Anti-viral agents, Anti-aging molecules, Anti-neurodegenerative drugs, Bioactive coordination compounds, *In vitro* biological activity, *In vivo* biological activity, Synthetic inorganic chemistry, Structural illustration, *In silico* pharmacology, Bio-inorganic chemistry, DNA interaction, Protein quenching, Enzyme inhibition.

Subtopics:

The subtopics to be covered within this thematic issue are as below (but not limited to)-

- Designing and development of coordination compounds possessing drug activities.
- Structural verification of bioactive coordination compounds.
- Nano scaled metal complexes and their drug likeness.
- Drug action mechanism of coordination compounds as antimicrobial, antiviral, anticancer, anti-diabetic etc.
- Computer aided pharmacokinetic and pharmacodynamic studies of coordination compounds.

Schedule:

- Manuscript submission deadline: 15th Oct. 2022
- Peer Review Due: 30th Nov. 2022
- Revision Due: 15th Dec. 2022
- Announcement of acceptance by the Guest Editors: 10th Jan. 2023
- Final manuscripts due: 30th Jan. 2023

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