

Tentative Outline

Special Thematic Issue for Current Topics in Medicinal Chemistry

Epidrugs As Novel Agents For Tackling Cancer Therapeutic Resistance

Guest Editors: *Shabir Ahmad Ganai*

Aims & Scope:

Epigenetic modifications regulate gene expression programs by modulating chromatin architecture. These modifications being reversible makes their regulating enzymes as excellent targets for therapeutic intervention. Histone acetylation is precisely regulated by the antagonistic activities of histone acetyltransferases (HATs) and histone deacetylases (HDACs). Similarly, histone methylation is regulated by site specific histone methyltransferases (HMTs or KMTs) and histone demethylases (KDs). Aberrant expression of these enzymes alters acetylation and site-specific methylation homeostasis culminating in oncological disorders. Thus, the present thematic issue will focus on HAT modulators, HDAC inhibitors, histone methyltransferase inhibitors and DNA methyl transferase inhibitors (epidrugs) in chemotherapy against therapeutically challenging cancers. However, it is obvious that singlet therapy of these inhibitors does not yield desired efficacy. Thus, special emphasis will be given to combinatorial therapeutic approaches involving these agents in conjunction with conventional therapeutic agents. Doublet therapeutic strategy hampers the ability of cancer cells to develop resistance and mitigates toxicity markedly as therapeutic effect is acquired even at low dose combinations.

Keywords: Epigenetic modifications, histone acetyltransferases (HATs), histone deacetylases (HDACs)

Subtopics:

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

- HAT modulators in anticancer therapy
- HDAC inhibitors in combinatorial therapy against chemoresistant cancers
- HMT inhibitors in anticancer therapy
- Strategies for discovery and designing of novel and selective modulators against HATs, HDACs and HMTs
- Current challenges with the HDAC inhibitors

Schedule:

- ✧ Manuscript submission deadline: April, 2019
- ✧ Peer Review Due: May 30, 2019
- ✧ Revision Due: June 10, 2019
- ✧ Announcement of acceptance by the Guest Editors: June 20, 2019
- ✧ Final manuscripts due: July 10, 2019

Contacts:

Guest Editor **Shabir Ahmad Ganai**
Affiliation: Department of Biotechnology
University of Kashmir-190006
Email: shabir.muntazir82@gmail.com

Any queries should be addressed to ctmc@benthamscience.net