Tentative Outline

Special Thematic Issue for Current Protein & Peptide Science

Title of the Thematic Issue: Bcl-2 Family Proteins in Therapeutic Arena for Cancers

Guest Editor: Dr. THIRUNAVUKKARASU SIVARAMAN

Scope of the Thematic Issue:

Apoptosis is a key-process on regulating life and death of cells and consequently governs normal tissue homeostasis in the human system. Impairments in apoptosis may cause either cancers (due to down-regulations) or degenerative diseases (due to up-regulations). The apoptosis is tightly regulated by Bcl-2 family of proteins in intrinsic pathways and fate of cells depends on the intricate interplay among the family members (anti-apoptotic proteins, pro-apoptotic proteins and BH3-only proteins). In the past two decades, tremendous research activities in the areas of apoptosis have brought into fore the molecular mechanisms of the apoptosis and as well have authenticated the apoptotic proteins as therapeutic targets to combat the cancers in particular.

In this background, a few numbers of extraordinary books and numerous review articles on apoptosis have been published by eminent researchers from across the world. However, this thematic issue titled **'Bcl-2 Family Proteins in Therapeutic Arena for Cancers'** is unique on bringing the most updated knowledge in the field from many facets: molecular mechanisms of apoptosis, biological roles & SAR of apoptotic proteins and therapeutic arena of apoptotic proteins particularly for cancers.

We invite investigators to contribute review articles systematically delineating up to date progress on any topics belonging to the thrust area mentioned below herein. The review articles may be thorough and exclusive coverage of computational studies or experimental studies or combination of both the studies on a particular topic of thrust areas. The reviews submitted for the thematic issue will be subjected to a double-blind peer review in a stipulated time-frame and considered for publications accordingly.

Thrust areas of the thematic issue include: **Apoptosis, Apoptotic proteins-inhibitors/activators complexes, Anti-cancer compounds, Biological roles of apoptotic proteins, BH3-mimetics, Hetero complexes of apoptotic proteins, Non-Classical BH3-only proteins, Molecular dynamics of apoptotic proteins, MOMP and Specificity/Structures of apoptotic proteins.**

Keywords: Apoptosis, Apoptotic Proteins, Anticancer Compounds, BH3-mimetics, Cancers, Drug Design, MOMP and Protein-Protein Interactions.

Sub-topics:

Thrust areas of the thematic issue:

Apoptosis
Apoptotic proteins-inhibitors/activators complexes
Anti-cancer compounds
Biological roles of apoptotic proteins
BH3-mimetics
Hetero complexes of apoptotic proteins
Non-Classical BH3-only proteins
Specificity/Structures of apoptotic proteins
Molecular dynamics of apoptotic proteins
MOMP

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Tentative titles of the articles:

- Structure-based design of Bcl-2 inhibitors
- Anticancer compounds from cyanobacteria and their implication in apoptosis
- BH3 mimetic peptides: An effective strategy to complement anticancer therapy
- Bioactive pentacyclic triterpenes trigger multiple signalling pathways for selective apoptosis leading to anticancer efficacy: recent updates and future perspectives
- Apoptotic Switch in Cancer Stem Cells
- Caspase 3 activators as anticancer agents
- Expression pattern of apoptotic markers in oral carcinogenesis: An overview
- Biological significance of apoptotic proteins in human cancer and its therapeutics
- Exploration of anticancer drugs and their immunomodulatory effects: A systematic review
- Endocrine FGFs - Structure, function, and pathophysiology
- Micro RNA and Bcl2: Short nucleotide to therapeutic targets.
- An overview of apoptosis in microbial infections: Novel therapeutic implications and challenges in pathogenesis.
- HBV and HCV associated HCC and molecular signaling pathways – An update.
- Review on genetic and epigenetic regulations in lung cancer.

Schedule:

- Review article submission deadline : **October 14, 2022**
- Peer review due : November 18, 2022
- Revision due : December 09, 2022
- Acceptance notification : December 29, 2022

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