

Tentative Outline

Special Thematic Issue for the journal Anti-Cancer Agents in Medicinal Chemistry

Therapeutic Potential and Pharmacognosy of Natural Biomolecules in the Treatment of Various Cancers: Strategy to Target Insight

Guest Editors: Dr. Mohd Adnan, Dr. Saheem Ahmad

- **Scope of the Thematic Issue**

Despite the fact, that science has discovered/created effective medicines against a large number of diseases, which have been a concern to mankind since long time. Still, lot of diseases and complications continue to exist as untreatable, which ultimately turned into a prime and serious health issue around the globe. According to the World Health Organization (WHO) report, cancer is the second leading cause of death globally, accounting one in six deaths. Therefore, there is a continuous need for exploration of innovative therapeutic agents and strategies, which can help in treating cancer. All through human evolution, natural products obtained from diverse life forms and nature has been remarkable and profoundly significant in the treatment of different types of diseases. Natural products have been the dominant and major resource of prospective drug leads with evident pharmacological activities, which can modulate a variety of cell signaling pathways, cytotoxic and genotoxic reactions. Recently developed technological advancements in metabolomics, proteomics and genomics associated with combinatorial chemistry paved vast usage of natural products. Now a days, majority of the natural products are evolved as prospective pharmacological agents with effective antimicrobial, antioxidant, anti-inflammatory, antidiabetics, anti-obesity activities etc. However, in fact, only few natural compounds have been employed as lead compounds as anticancer agents and have been acquired fully for therapeutic use. Since, less than 10% of the world's biodiversity has been assessed for prospective biological activity, much greater functional natural lead compounds lies in the nature undiscovered. Possessing these evidences about the functional role of natural compounds in the treatment and management of various cancers, this thematic issue of Anti-Cancer Agents in Medicinal Chemistry (ACAMC) aims to cover the current trends and advancements in the field of natural bioactive compounds for the treatment of cancer. However, manuscripts dealing with phytochemical composition of the crude extracts with chromatographic or mass techniques with detailed chemical profiling and concentration will only be considered. Papers providing preliminary analysis using simple MTT assay on a cancer cell line will not be accepted. Moreover, studies focusing on single biomolecule with potent anticancer and diverse therapeutic properties is desirable. The overall rationale of this thematic issue is to provide the readers of ACAMC with detailed information, and deeper understanding on the topic uncovering the anticancer mechanism.

Keywords: Bioactive compounds; Natural products; Cancer; Ethnomedicine; Medicinal chemistry; Phytochemistry; Anti-cancer agents

Sub-topics:

- Natural bioactive compounds: new insights and strategies for the treatment of various cancers.
- Phytochemical characterization of the tested extracts with chromatographic/mass techniques or in depth analysis with therapeutic potential of single biomolecule as an active/potent anticancer agent from plants, animals, marine sources etc.
- Detailed mechanistic studies on the anticancer activity of naturally sourced biomolecules.
- Recent advances in the study of anticancer natural bioactive molecules.
- Nutraceuticals, functional foods as anticancer agents.

Tentative titles of the articles and list of contributors:

Sl. No.	Tentative Titles	Contributor Name and Designation	Address and Email	h-index
1.	Anticancer potential of natural bioactive compounds from plants: A systematic review	Prof. Vincenzo De Feo Professor	Department of Pharmacy, University of Salerno, Via Giovanni Paolo II, 132, I-84084 Fisciano (Salerno), Italy. defeo@unisa.it	41
2.	The potential usage of flavonoids for the treatment of cancer	Dr. Shams Tabrez Associate Professor	King Fahd Medical Research Center, King Abdulaziz University, Saudi Arabia stabrez@kau.edu.sa	26
3.	Curcumin: a therapeutic bioactive molecule for treatment of glioblastoma multiforme and other hepatic ailments	Dr. Snoussi Mejdj Associate Professor	Laboratory of Genetics, Biodiversity and Valorisation of Bioresources, High Institute of Biotechnology-University of Monastir, Tunisia snmejdj@yahoo.fr	20
4.	A valuable insight into the therapeutic potential of enantiopure cycloalkylglycines derivatives	Prof. Adel Kadri Professor	Department of Chemistry, ULP Strasbourg, France lukadel@yahoo.fr	18

5.	Natural Products based fluorogenic probes for bioimaging in cancer: A review	Dr. A. Haque Assistant Professor	Department of Chemistry, College of Science University of Hail, Kingdom of Saudi Arabia a.haque.uoh@gmail.com	17
6.	Role of natural products in anticancer activities with special reference to ER stress signaling	Dr. Maryam Sarwat Associate Professor	Amity Institute of Pharmacy, Amity University, Noida, India msarwat@amity.edu	17
7.	Isoferulic acid & Garcinol: Prospective portrayal as antiglycation & anticancer agent	Dr. Mohd Sajid Khan Associate Professor	Department of Biosciences, Integral University, Lucknow, India skhan@iul.ac.in	15
8.	<i>Salvadora persica</i> L.: In-depth investigation of its biological activities	Dr. Ozgur Ceylan Associate Professor	Mugla Sitki Kocman University, Ula Ali Kocman Vocational School, Turkey ozgceylan@hotmail.com	12
9.	Medicinal properties of Phycobilins from <i>Spirulina</i>	Dr. Ahmad Ali Assistant Professor	Department of Life Sciences University of Mumbai, Mumbai, India ahmadali@mu.ac.in	4

Schedule:

✧ Thematic issue submission deadline: 30 August 2021

Contacts:

Guest Editor Name: Dr. Mohd Adnan

Affiliation: Department of Biology, College of Sciences, University of Hail, Hail, PO Box 2440, Saudi Arabia

Email: drmohdadnan@gmail.com; mo.adnan@uoh.edu.sa