

Tentative Outline

Special Thematic Issue for the journal "Current Drug Targets"

Title of the Thematic Issue:

The Novel Use of Lipids as Diagnostic Tools and Therapeutics in Cancer: Recent Insights and Challenges

Guest Editor: Prof. Chandi C. Mandal, PhD

• Scope of the Thematic Issue:

Despite multiple scientific and medical advances, cancer remains the second leading cause of death globally. Recent developments in diagnosis, prognosis and treatment modalities significantly increase the overall survival and quality of life in cancer patients. The etiology of many cancer types and subtypes is not yet well defined, but both genetic mutations and epigenetic changes act synergistically in tumor development and contribute to metastasis. Alterations and/or abnormality in intrinsic factors in the extracellular and intracellular environment modulate tumorigenic activity at primary tumor and metastatic sites. An abundance of research articles have linked the dysregulation of intrinsic lipid molecules and their metabolites with cancer growth, metastasis, and therapy resistance in varied experimental models and clinical studies. However, limited information is accessible concerning the relationship between lipids and cancer. This thematic issue emphasizes work focused on lipid homeostasis, lipid metabolism, reprogramming of lipid metabolic networks, lipid metabolites, and phospholipids linked with tumorigenic potential and drug resistance along with metastatic activity. This issue aims to provide information concerning the involvement of obesity, dietary habits, gut microbes, and other factors, such as mitochondria, in lipid-linked cancers. Additionally, this thematic issue targets developments in identification of fatty acids, which can be used in the treatment of cancers and treatment-associated complications as well as novel approaches in drug delivery.

Keywords: Cancer, Cancer metastasis, Cholesterol, Fatty acids, Omega-3 fatty acids, Lipid metabolism, Sphingolipids,

Sub-topics:

The sub-topics to be covered within the issue include:

- Influence of cholesterol and its metabolites in cancer
- Dysregulation of phospholipids and sphingolipids in cancer
- Disruption of fatty acid and cholesterol homeostasis in cancer
- Dietary contribution and gut microbes in lipid-linked tumorigenesis
- Fatty acid and lipid use in cancer diagnosis and therapy
- Reprogramming of lipid metabolism during cancer development
- Involvement of adipocytes in cancer

Tentative titles of the articles and list of contributors:

Tentative titles of the articles and list of contributors with their names, designations, addresses and email addresses should be provided.

SI. No	Proposed Title	Main/Corresponding Author	Designation and Affiliation	Country	Author agreement
1.	Targeting triglyceride metabolism for colorectal cancer prevention and	Prof. Chinthalapally V. Rao	Department of Medicine, Stephenson Cancer Center, University of Oklahoma Health Sciences Center, Oklahoma, USA Email: CV-Rao@ouhsc.edu h-index:69	USA	YES

	therapy		https://scholar.google.co.in/citations?user=LsRjodsAAAAJ&hl=en		
2	Adipocyte fatty acid binding protein A (A-FABP) as a potential new therapeutic target for treatment of obesity –associated cancers	Prof. Jakub Fichna	Department of Biochemistry Medical University of Lodz, Poland Email: jakub.fichna@umed.lodz.pl h-index: 39 https://scholar.google.pl/citations?user=6tYGySIAAAAJ&hl=en	Poland	YES
3.	Regulation of tumor immune microenvironment by sphingolipids and lysophosphatidic acid	Dr. Ashok Kumar	Associate Professor Department of Biochemistry All India Institute of Medical Sciences (AIIMS), Bhopal, India Email:ashok.biochemistry@aiimsbhopal.edu.in h-index:19 https://scholar.google.com/citations?user=RRJg09AAAAAJ&hl=en	India	YES
4.	Antiphospholipid antibodies in Hematological Malignancies	Dr. Arnulfo Hernán Nava-Zavala	Faculty Member, Instituto mexicano del seguro social, Unidad de Investigacion Biomedica, UMAE Hospital de Especialidades CMNO, Mexico Email: navazava@yahoo.com.mx h-index:18 https://www.researchgate.net/profile/Arnulfo_Nava-Zavala	Mexico	YES
5.	Lipid metabolism and mitochondria: Cross talk in cancer metastasis	Dr. Lokendra Sharma	Assistant Professor Department of Molecular Medicine SGPGIMS-Lucknow, (U.P.), India Email: lokendra@sppgi.ac.in h-index: 16 https://scholar.google.co.in/citations?user=Hb5LrtQAAAAJ&hl=en	India	YES
6.	Endocannabinoids in neoplastic and metastatic process	Prof. Vladimir Bezuglov	Shemyakin-Ovchinnikov Institute of Bioorganic Chemistry, Moscow, Russia Email: vvbezuglov@gmail.com h-index: 18 https://www.researchgate.net/profile/Vladimir_Bezuglov	Russia	YES
7	Exploring the impact of gut microbiome dysbiosis on tumorigenesis through modulation of lipid	Dr. Indranil Chattyapadhyay(1) and Prof. Chandni C. Mandal (2)	(1)Assistant Professor Central University of Tamil Nadu, India (2) Professor, Central University of Rajasthan, India Email: chandnicmandal@gmail.com h-index:22 https://scholar.google.co.in/citations?user=p6uxNRcAAAAJ&hl=en	India	YES

	metabolism				
8.	Omega-3 fatty acids as a combination partner for cancer metastasis, therapy resistance and drug-induced toxicity	Prof. Chandi C Mandal	Professor, Central University of Rajasthan, India Email: chandicmandal@gmail.com h-index:22 https://scholar.google.co.in/citations?user=p6uxNRcAAAAJ&hl=en	India	YES
9.	Targeting cholesterol homeostasis for cancer treatment: advanced and prospects	Dr. Navneet Agnihotri	Associate Professor, Dept. of Biochemistry, Panjab University, India Email:agnihotri.navneet@gmail.com h-index: 14 https://scholar.google.co.in/citations?user=qwQIIHYAAAAJ&hl=en	India	YES
10	Lipid-based nanocarriers loaded with taxenes for the management of breast cancer: promises and challenges	Dr. Kaiser Raza	Assistant Professor, Central University of Rajasthan, India Email: drkaiser@curaj.ac.in h-index:27 https://scholar.google.co.in/citations?user=w_yJgscAAAAJ&hl=en	India	YES
11	Lipid oxidation and cancers: effects of dietary lipids – a systematic literature review'	Dr. Omotayo Erejuwa	Faculty of Medicine, Department of Pharmacology and Therapeutics, Ebonyi State University, Abakaliki, Ebonyi State, Nigeria. Email: erejuwa@gmail.com h-index:20 https://scholar.google.com/citations?user=1p2YI3MAAAAJ&hl=en	Nigeria	YES
12	miRNAs as key players of cancer stem cell and cholesterol:	Dr. Mandeep Kaur	Associate Professor University of the Witwatersrand: Johannesburg-Braamfontein, Gauteng, ZA, South Africa Email:mandeep.kaur@wits.ac.za h-index:18 https://scholar.google.com/citations?user=EIM1rCAAAAAJ&hl=en	South Africa	YES
13	Lipidomics as biomarkers of intestinal pathology: from irritable bowel syndrome to colorectal cancer	Dr. Raquel Abalo	Dept. Basic health sciences, fac. Health sciences, University Rey Juan Carlos Country: Spain Email address: raquel.abalo@urjc.es h-index:21 https://scholar.google.com/citations?user=RNPyf6IAAAAAJ&hl=es	Spain	Yes

Schedule:

✧ Thematic issue submission deadline: December 31, 2020

Contacts:

Guest Editor Name: Prof. Chandi C. Mandal

Affiliation: Department of Biochemistry,
School of Life Sciences,
Central University of Rajasthan,
NH-8, Bandarsindri, Kishangarh-305817
Ajmer, Rajasthan, India
Phone No: +919650569396

Email: chandicmandal@gmail.com or ccommandal@curaj.ac.in

Special note: Prof. Chandi C. Mandal is Associate Editorial Board Member of the journal, "Current Drug Targets"