

Tentative Outline

Special Thematic Issue for the journal "Current Cancer Drug Targets"

Title of the Thematic Issue: Molecular Biomarkers for Cancer Control

Guest Editor: Huashan Shi

Co-Guest Editors: Xuyu Gu, Ting Yu

• Scope of the Thematic Issue:

Powered by rapid technological developments, increasingly diverse types of biomarkers have been detected at genomic, transcriptomic, proteomic, metabolomic, immunomic, and cellular levels. While diverse sets of biomarkers have been utilized in cancer diagnosis, prognosis, treatment, and management, recent additions derived from lincRNA, circular RNA, circulating DNA together with its methylated and hydroxymethylated forms, and immune signatures are likely to further transform clinical practice.

With the aim of delineating the functionalities of molecular biomarkers and their interactions in driving cancer initiation and progression to aid in precision medicine, this Research Topic covers a wide spectrum of research interests that draw a holistic view to multiscale biomarkers with prospects of joint inference and in diverse use scenarios including predisposition, diagnosis, prognosis, and therapeutics.

Keywords: Cancer biomarker, Genomics and Epigenomics, Transcriptomics, Proteomics, Genetic Association Studies, Bioinformatics

Sub-topics:

- Novel biomarkers differentiating cancer heterogeneity that require many informed decisions from treatment to care with the help of genomic or epigenomic sequencing. Please note that studies proposing novel biomarkers must include molecular validation.
- Identification of biomarkers, signature panels, pathways, or networks stratifying or rewiring cancer stemness for diagnostic and therapeutic purposes.
- Augmentation of multiscale molecular biomarkers and assessment of their complementary advantages using computational or experimental approaches.
- Characterization of the primary mechanisms of biomarkers that drive cancer heterogeneity and malignancy.
- Novel computational or experimental techniques for identifying and capturing diverse types of cancer biomarkers based on their molecular features.
- Clinical translation or efforts bridging the gap between our incremental knowledge on cancer biomarkers and the influence of these diversified biomarkers on clinical practice.
- Novel diagnostic molecules to improve the early detection rate for cancer.
- Novel prognostic molecules to stratify cancer patients into different risk.
- Novel biomarker to predict chemotherapy response of cancer patients.

Schedule:

- ✧ Thematic issue submission deadline: 31/03/2023

Contacts:

Guest Editor Name: Huashan Shi

Affiliation: Sichuan University

Email: shihuashan@scu.edu.cn

Co-Guest Editor Name: Xuyu Gu

Affiliation: Southeast University

Email: guxuyu@seu.edu.cn

Co-Guest Editor Name: Ting Yu

Affiliation: Sichuan University

Email: yuting_scu@126.com