

## Tentative Outline

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

#### Title of the Thematic Issue: Omics-Based Molecular Target and Cancer Biomarker Discovery

*Guest Editor: Feng Jiang*

*Co-guest Editor: Fu Wang*

- **Scope of the Thematic Issue:**

Omics mainly includes genomics, epigenomics, transcriptomics, proteomics and metabolomics. The rapid development of omics technology over the past ten years is now widely used in biomedical research to advance the understanding of disease mechanisms and to identify of molecular targets and biomarkers for therapeutic and diagnostic purposes. The use of omics data in cancer diagnosis and cancer biomarker screening represents a very new development, and the integration of multi-omics data has increased our understanding of the disease.

Although some new molecular targets and biomarkers have been successfully identified, the heterogeneity of cancer requires that we develop additional drugs and biomarkers to individualize treatment options. Recent technological and analytical advances in biology and medicine have made it possible to rapidly elucidate the mechanisms of cancer progression and to identify new targets, thus providing tremendous opportunities for the development of new, clinically effective anti-cancer drugs and biomarkers.

"Omics-based molecular target and cancer biomarker discovery" calls for papers on the development of new approaches to diagnose and screen for cancer using bioinformatics tools, machine learning, neural networks, processing and analysis of omics data, and anticancer drug discovery and design. The aim of this thematic issue is to collect works that have been successfully translated into clinical practice or have a high chance of becoming clinically relevant.

**Keywords:** biomarkers, prognosis, molecular target, diagnosis, oncology, bioinformatics, omics data

#### Sub-topics:

- Molecular biomarkers in predicting and detecting in cancer
- Biomarkers for the evaluation of drug resistance in cancer
- Advances in molecular target and biomarker in cancer
- Impact of biomarker discovery in the prognosis and epidemiology of cancer

#### Tentative titles of the articles:

- A circulating microRNA panel as a novel dynamic monitor for triple-negative breast cancer
- Cellular senescence-related long noncoding ribonucleic acids: Predicting prognosis in solid tumors
- Comprehensive bioinformatics analysis reveals SLC4A7 is a promising immunotherapy target associated with T cell function for melanoma patients
- Pan-cancer onco-signatures reveal a novel NK cell related subtype of prostate carcinoma with sepcific regulators
- Cancer-associated fibroblast related gene signature of low grade glioma for prognosis and tumor microenvironment in silico analysis
- Identification of the different gene expression characteristics in melanoma patients using single-cell sequencing analyses
- DNA methylation-based patterns for early diagnostic prediction and prognostic evaluation in gastric cancer patients with high tumor mutation burden
- Molecular analysis of Wnt/ $\beta$  pathway-related genes to predict prognosis and immunotherapy response in patients with non-small cell lung cancer
- Cross-talk between cuproptosis and ferroptosis regulators defines the tumor microenvironment for the

prediction of prognosis and therapies in cutaneous melanoma

- Integrative analyses of biomarkers and pathways for metformin reversing cisplatin resistance in ovarian cancer cells
- Positive regulators of T cell functions as precursors of prognosis and microenvironment characteristics of esophageal cancer

#### **Schedule:**

- ✧ Thematic issue submission deadline: 31 December 2023

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