Journal of Oncology

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Special Issue on

Biomarkers for Breast Cancer Research, Diagnosis, and Treatment

CALL FOR PAPERS

Biomarkers play an increasingly important role in cancer diagnosis and management. In advancement towards precision medicine, the field of cancer biomarker discovery has rapidly expanded over the last few decades. This has been developed by advances in technologies and approaches including next generation sequencing, mass spectrometry, circulating tumour cells, and cell-free DNA. The discovery and use of specific prognostic and predictive biomarkers have enabled the application of targeted precision therapies to specific molecular subgroups of patients likely to gain benefit. Indeed, the development in tandem of companion-diagnostics alongside new drugs is often essential to obtain licensing approval from regulatory bodies. Additionally, the use of biomarkers can allow for the identification of patients with a favorable prognosis who can safely be spared from unnecessary overtreatment.

Within breast cancer, recent biomarker discovery efforts have led to the identification and development of several prognostic and predictive biomarkers including multigene signatures. Some are now commercially available and approved for clinical use while others remain to be clinically validated. Despite these advances, there is still an important clinical need for the development and validation of novel biomarkers with greater sensitivity, specificity, and clinical utility.

This special issue aims to explore new and existing biomarker development and validation in breast cancer and also focus on new technologies and approaches. We encourage submissions of original research findings regarding new biomarkers for breast cancer and new approaches for their detection and validation. The markers may include, but are not limited to, genomic, transcriptomic, epigenetic, and proteomic. We also especially welcome review articles which describe the current state of biomarker development and clinical utility for breast cancer diagnosis and management.

Potential topics include but are not limited to the following:

- Current and emerging biomarkers in breast cancer
- Biomarkers for breast cancer diagnosis and treatment
- Biomarkers for the following: patient suitability for treatment screening, prognosis, response to treatment, monitoring of disease progression, and relapse
- Biomarkers for chemotherapy response
- Biomarkers for endocrine therapy response
- Biomarkers for radiotherapy response
- Biomarkers for targeted therapies (including but not limited to HER2, CDK4/6, PARP, PD-1, and MTOR)
- Biomarkers for novel therapeutics
- Serum biomarkers
- Genomic biomarkers (including but not limited to mutations, amplifications, and fusions)
- Biomarker discovery
- Novel methods/approaches for biomarker discovery
- Novel methods for clinical detection of genomic biomarkers
- Discovery and validation of secreted/serum biomarkers
- Circulating tumour cells
- Cell-free DNA

Authors can submit their manuscripts through the Manuscript Tracking System at https://mts.hindawi.com/submit/journals/jo/bfbc/.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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