

Tentative Outline
Special Issue for CURRENT CANCER DRUG TARGETS
Guest Editor(s): BALÁZS GYÓRFFY MD PHD

CANCER BIOMARKERS FROM BENCH TO BEDSIDE

Aims & Scope:

Cancer systemic therapy includes chemotherapy, hormonal therapy and targeted therapy. A major clinical problem is the rapid development of resistance against both chemotherapy and targeted therapy – resistance to these is a complex multifactorial problem, where several pathways may act simultaneously and influence each other leading to failure of the treatment. Identification and understanding mechanisms of progression and therapy resistance holds the potential of identifying and developing new biomarkers capable to predict disease outcome following treatment with a specific agent.

A biomarker represents an objectively measurable indicator of a biological state or condition. The most widely used examples for cancer biomarkers are the ESR1 and ERBB2 receptors and RAS. Low ESR1 expression predicts ineffective hormonal therapy and low ERBB2 expression predicts lack of response to trastuzumab treatment in breast cancer. A mutation in the RAS oncogene predicts lack of response to targeting upstream member of the signal transduction pathway including EGFR inhibitors in colorectal cancer. Thus, these are negative biomarkers, predicting non-response.

Currently, the FDA encourages and facilitates the development of new biomarkers, as it is believed that only these will help to develop new medical products leading to better personalized medicine. In present thematic issue we will focus on two main aspects of cancer biomarkers. First, we will summarize different conceptual approaches to cancer biomarkers including tactics focused on diagnostic application, cell culture based wet bench experiments, approaches focused on autophagy and tumor stroma. In the second part, we will elaborate on biomarkers for various cancer types including breast, prostate, colon and ovarian cancer.

Key words:cancer, survival, therapy response, biomarkers, targeted therapy

Subtopics:

- The influence of host factors on prognosis: Stroma and immune cell components as cancer biomarkers in breast cancer
- Old suspects new functions: tumor microenvironmental elements as biomarkers of colorectal cancer
- Cancer biomarkers for outcome prediction in advanced colorectal cancer: from pre-clinical setting to clinical application
- Promise and Challenge of targeting Autophagy for Cancer therapy
- Relevance of different breast cancer cell lines to breast cancer patients taking into account drug response
- The relevance of TMPRSS2-ERG gene fusion / expression in prostate cancer

- Correlations of CDK8 expression in breast cancer
- Re-inventing Cancer Diagnosis and Therapy

Schedule:

Manuscript submission deadline:	30th November 2014.
Peer Review Due:	31st December 2014.
Revision Due:	28th February 2015.
Notification of acceptance by the Guest Editor:	15th March 2015.
Final manuscripts due:	20th April 2015.