

Tentative Outline
Special Issue for CURRENT CANCER DRUG TARGETS

Guest Editor(s):
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Hot Topic Title

PERSONALIZED THERAPEUTIC APPROACH IN CANCER

Aims & Scope: In the post-genomic era, despite the extraordinary progress in the understanding of cancer disease pathogenetic mechanisms, new therapies are urgently required for a truly personalized medicine. We review here some novel attractive strategies for therapy in cancer.

Recent small-molecule screens have revealed inhibitors against ubiquitin-conjugating and -deconjugating enzymes, many of which have been evaluated for their potential use as therapeutics, either as single agents or in combination with other drugs.

Inhibitors of poly(ADP-ribose) polymerases actualized the biological concept of synthetic lethality in the clinical practice. Tumors with germline BRCA mutations carry defects in homologous recombination machinery, unleashed by interruption of PARP DNA repair activity, DNA damage overload and cell death. "BRCAness" (a vast entity of genetic and epigenetic defects) are BRCA-like tumors, harboring somatic DNA repair dysfunctions that can be sensitive as well to PARP inhibition. A comprehensive analysis of the multifaceted biology of PARPs and their evolving impact on cancer therapeutics will be presented.

Appropriate control of the cell cycle is critical for proliferating normal cells, and we discuss the importance of defining tumour specific vulnerabilities that could be targeted with cell cycle kinase inhibitors. We review here the strategies used to exploit the dysregulated cell cycle through WEE1 or Mps1 kinases inhibition to block mitotic progression.

Key words: Target therapies, kinase inhibitors, DUB inhibitors, BRCAness-tumors, PARP-inhibitors.

Subtopics: 1. "Mps1 kinase inhibitors in the clinic"

2. "USP7 de-ubiquitinase inhibitors offer novel therapeutic opportunities in cancer"

3. "Wee1 kinase inhibition potentiates anti-microtubule cancer drugs by affecting the spindle assembly checkpoint robustness"

4. "PARP inhibitors in "BRCAness" tumors"

Schedule:

Manuscript submission deadline:	June 26, 2015
Peer Review Due:	July 24, 2015
Revision Due:	August 24, 2015
Notification of acceptance by the Guest Editor:	September 24, 2015
Final manuscripts due:	November 2015