Journal of Oncology

Hindawi

Special Issue on

Mechanisms and Consequences of Genomic Evolution in Cancer

CALL FOR PAPERS

Genomic instability which seems to arise early at premalignant stage and gradually intensifies leads to a series of genomic changes, some of which underlie progression through successive stages of disease, development of drug resistance, and poor clinical outcome. The ability to constantly evolve not only enables the cancer cell to acquire new characteristics for development and progression of disease, but also presents a great challenge for cancer treatment and diagnosis. Moreover, the changes acquired as a consequence of genomic instability may also predict patient outcome. Genomic instability can be a consequence of a number of factors which can be extrinsic (such as exposure to harmful agents in food and environment) or intrinsic (such as food metabolites and/or aberrations in pathway/s involved in genome maintenance). The mechanisms underlying genomic instability and their activation during carcinogenesis are not fully understood and identification of these mechanisms (both extrinsic and intrinsic) could help in development of novel strategies for cancer prevention and treatment.

Recently, the role of inflammation in cancer has also emerged as of great significance in translational cancer research. It has been demonstrated that inflammatory reactions can lead to aberrant expression of genes involved in DNA repair or maintenance, leading to genomic instability. Gastrointestinal tissues derived from diseases which have inflammation related to oncogenic process, including Barrett's esophagus, chronic viral hepatitis, and inflammatory bowel disease, frequently display aberrant expression/function of activation-induced cytidine deaminase, a protein involved in DNA repair/maintenance.

We invite investigators to contribute review and original research papers describing recent findings in the fields of genomics/genomic evolution and underlying mechanisms.

Potential topics include but are not limited to the following:

- Understanding molecular mechanisms and consequences of genomic instability in cancer
- Identification of new prognostic tools and novel therapeutic strategies, targeting genomic instability, telomere maintenance, and underlying mechanisms

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

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