

Special Issue on
**Epigenomics in Toxicological and Translational Research:
From Bench to the Clinics**

CALL FOR PAPERS

Epigenomics is the study of modifications that result in changes in gene expression and function without a corresponding alteration in DNA sequence. These include DNA methylation, histone modification/remodeling, nucleosome positioning along DNA, and posttranscriptional regulation by noncoding RNAs, that is, microRNA (miRNA). The advent of next generation sequencing (NGS) and genome wide base resolution of DNA methylation and chromatin immunoprecipitation analyses has tremendously improved our understanding of epigenomics and resulted in substantial increase in the amount of available epigenomic data.

The role of epigenetic alterations in modulating the acute and late toxicological responses and pathogenesis of numerous diseases is becoming increasingly apparent. Furthermore, accumulating evidence from the in vitro and in vivo models and emerging clinical data demonstrate the role and the necessity of translational research in epigenomics.

This special issue will focus on the principle of epigenomics and its involvement in disease development, including diagnosis and therapy as well as toxicological applications of epigenomics. We invite authors to submit original research and review articles.

Potential topics include but are not limited to the following:

- ▶ Epigenomics in disease development and progression
- ▶ Epigenomic aspects of environmental and chemical toxicology
- ▶ Epigenomics in the development of biomarkers of radiation exposure and disease diagnosis
- ▶ Current methods in epigenomics (DNA methylation, miRNA, and histone modification) relating to toxicological and translational research

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/ijg/ettr/>.

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

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