

Special Issue on
**Developmental Gene Markers in Tumor Pathogenesis
and Progression**

CALL FOR PAPERS

At the end of the 1970s, Ibsen et al. hypothesized that the deregulation of genes involved in embryonic development could play a fundamental role in the pathogenic mechanisms of tumor diseases.

In particular the aberrant activity of the genes that regulate cell differentiation and morphogenesis during embryonic development appears to be associated with specific oncogenic processes, from the control of cell growth, proliferation, and apoptosis, to cell invasion and epithelial mesenchymal transition.

In this context, one of the most striking examples is represented by the homeobox gene family, a superfamily of transcription factors, mostly involved in the control of the identity of various regions along the body axis, from the branchial area to the tail. In particular, the deregulation of Class I Homeobox genes (HOX genes) is described as strongly associated with neoplastic transformation and disease progression in several human cancers.

Additionally, in recent years several noncoding RNA (ncRNA) sequences have been identified in HOX loci, including long noncoding RNAs (lncRNA) and microRNAs (miRNA). The high level of conservation between these adjacent genes during evolution could suggest their critical role in the regulation of HOX gene expression in normal and pathological conditions.

In this special issue we aim to provide readers with an overview of the latest studies concerning the regulation and deregulation of developmental genes and noncoding RNAs involved in tumor pathogenesis and progression.

Potential topics include but are not limited to the following:

- ▶ Homeobox genes and HOX genes as tumor markers
- ▶ Notch signaling pathway in tumor pathogenesis and progression
- ▶ MiRNAs in developmental genes regulation and cancer
- ▶ LncRNAs in developmental genes regulation and cancer

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

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

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