

## Tentative Outline

### Special/Thematic Issue for the journal: Current Genomics

#### Title of the Thematic Issue: Non-Coding RNAs as Biomarkers and Therapeutic Targets for Chronic Human Diseases

*Guest Editor: Sujay Paul*

- **Scope of the Thematic Issue:**

A substantial paradigm change has recently been noticed regarding the significance of the non-coding human transcriptome. The development of novel and accurate biomarker-based diagnostic approaches is now seen as a new opportunity. Circulating non-coding RNAs (ncRNAs) such as microRNAs (miRNAs), long noncoding RNAs (lncRNAs) and Circular RNAs (CircRNAs) are found to be promising non-invasive disease biomarkers due to higher stability, variable storage conditions for the samples, as well as increased sensitivity and specificity when compared to traditional biomarkers. On the other hand, therapeutic targeting of ncRNAs represents an outstanding strategy for treating several chronic disorders. The deregulation of miRNAs in disease can be harnessed by employing miRNA mimics or anti-miRs and many of them have already entered clinical development, while lncRNA-based therapeutics are gaining attention. Therefore, this special issue will focus on the recent progressions in using non-coding RNAs as disease biomarkers and therapeutic targets for chronic human diseases.

**Keywords:** MicroRNA, Long non-coding RNA, CircRNA, Chronic human diseases, Biomarker, Therapeutics

#### Sub-topics:

- Non-coding RNA functions as disease biomarkers.
- Non-coding RNA-based disease therapeutics.
- Efficient and safe delivery systems for therapeutic non-coding RNA.
- Bioinformatic methods to predict disease-related ncRNAs and their role in diagnosis and treatment.
- The limitations and key challenges of ncRNA-based diagnostic and therapeutic approaches.

#### Schedule:

- ✧ Thematic issue submission deadline: 15/08/2023

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