

Special Issue on
Noncoding RNAs and Gene Regulation

CALL FOR PAPERS

Noncoding RNAs (ncRNAs) have been under the spotlight of scientific community for decades. The functional roles of many classes of ncRNAs have been extensively studied. These researches have furthered our understanding in many fundamental biological processes. In recent years, increasing evidence suggest that a large fraction of ncRNAs actively affects transcription, RNA metabolism, stress response, and epigenetic landscapes, orchestrating the regulation of gene expression. The versatile biochemical properties of ncRNAs, often originated from their sequences and secondary structures, are well suited for many tasks, including catalysis, scaffolding, and bridging macromolecule interactions. Coupled with numerous RNA-binding proteins, ncRNAs exert even higher capacity in forming a vast regulatory network.

Many techniques were designed to discover functions of ncRNAs, assisting mechanistic studies targeted to a few or a class of ncRNAs. In particular, recent high-throughput sequencing-coupled methods enabled data-driven discovery of novel functions of ncRNAs in a systemic and unbiased fashion. The continuous development of new techniques is quintessential to further explore the unknown territory in future ncRNA research.

The primary purposes of this special issue are to exchange the latest advances in the attempt to unveil the mechanism and biological significance of ncRNAs in gene expression regulation and to describe actual and envisioned use of natural and engineered ncRNAs both in basic and applied biomedical research. We are interested in original research articles and reviews articles, including reports of novel experimental and computational methods that facilitate investigation of ncRNAs.

Potential topics include but are not limited to the following:

- ▶ Molecular mechanisms of any class of ncRNAs in gene expression regulation
- ▶ Systemic evaluation of biochemical properties and functional secondary structures of ncRNAs
- ▶ Functional interactions among proteins, DNA elements, and ncRNAs
- ▶ Disease related ncRNAs and potential therapeutic implications
- ▶ Novel methodology to assay functions and biological significance of ncRNAs

Authors can submit their manuscripts through the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/bmri/molecular.biology/ncrna/>.

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