

Tentative Outline

Special Thematic Issue for the journal : “Current Gene Therapy” (CGT)

Title of the Thematic Issue: MicroRNA theranostics in cancer

Guest Editor: Sujay Paul

•Scope of the Thematic Issue:

MicroRNAs (miRNAs) are short non-coding RNAs that act as post-transcriptional regulators of gene expression and are involved in several vital biological pathways, including development, differentiation, proliferation, and apoptosis. miRNAs expression has been found to be dysregulated in a variety of cancers, suggesting that they can function both as oncogenes and tumor suppressors. Considering their crucial involvement in carcinogenesis, miRNAs have been studied as diagnostic and prognostic biomarkers, as well as potential therapeutic targets. During the previous decade, multiple microRNAs have emerged as front-runners for microRNA-based therapy in various cancer types, and clinical trials for many of them have already begun. Therefore, this Special Issue will focus on the identification and characterization of novel miRNAs and their targets significantly associated with cancer pathogenesis, as well as their potential as biomarkers for early cancer detection and the development of innovative cancer treatments.

Keywords: microRNA, Cancer, Gene regulation, Biomarker, Prognosis, Therapy

Sub-topics:

- miRNA function as cancer biomarkers.
- miRNA therapeutics in cancer.
- miRNA regulation and its connection with the p53 family members during cancer progression.
- Efficient and safe delivery systems of therapeutic miRNAs.
- Impact of miRNAs in chemotherapy resistance.

Tentative titles of the articles and list of contributors:

1. Association of microRNA-652 expression with radiation response of colorectal cancer: A study from
2. rectal cancer patients in a Swedish trial of preoperative radiotherapy
3. MicroRNAs as biomarkers for prognosis, early diagnosis and targeting Prostate Cancer
4. Exosomal miRNAs: an insight into drug-resistant and therapeutic targets in cancer
5. Targeting Long Noncoding RNAs (lncRNA) RBM5- AS-1 to treat Glioblastoma
6. microRNAs in Head and Neck Cancer
7. miRNAs as therapeutic targets in Colorectal Cancer and CRISPR/Cas9 mediated PIK3Ca
8. modification as a novel treatment modality
9. Title yet to be decided
10. MicroRNA theranostics: Recent trends and current advances in targeting colon cancer stem cells
11. Perils and promises of miRNA in understanding colon cancer metastasis and progression
12. MicroRNAs: Novel potential therapeutic targets in colorectal cancer

Schedule:

- ✧ Thematic issue submission deadline: 30/7/2022

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