

# Tentative Outline

## Special Thematic Issue for the journal *Current Drug Delivery*

### “Nanomaterials in RNA Therapeutic Technology”

**Guest Editor:** Hossein Hosseinkhani

- **Scope of the Thematic Issue:**

Because of the need for significant importance of RNA molecules as one of the most important revolutions in advanced medicine as a new model of therapeutic approach for treatments of various infectious and genetic diseases, including cancer and new vaccine development based on RNA technology (the most recent for Covid-19 case), an ideal RNA based delivery systems for clinical therapeutic applications must be clinically suitable, safe and effective.

RNA carries genetic information that is translated by ribosomes into various proteins necessary for cellular processes. mRNA, rRNA, and tRNA are the three main types of RNA involved in protein synthesis. RNA-based gene therapy requires therapeutic RNA to function inside target cells without eliciting unwanted immune responses. RNA can be ferried into cells using viral and non-viral drug delivery systems, which circumvent the limitations of viral delivery vectors. These special issues discusses on the recent development of RNA delivery technology by the use of nanomaterials as non-viral vectors and provide the most scientific reports for further development of drug discovery and vaccine technology.

**Keywords:**

RNA Therapeutic, Non-Viral Delivery Systems, Biomaterials, Nanaomaterials, Polymers

**Sub-topics:**

- Drug Discovery
- RNA Therapeutic
- Vaccine Technology
- Intelligent Viral and non-Viral Vectors
- .Nanomaterials

**Schedule:**

- ✧ Thematic issue submission deadline: March 31, 2023

**Contacts:**

**Guest Editor Name:** Hossein Hosseinkhani

**Affiliation:** Innovation Center for Advanced technology, Matrix, Inc.

**Email:** hh@matrix-inc.com