# Special Issue

# RNA Interference (RNAi): Mechanisms and Applications

## Message from the Guest Editor

RNA interference (RNAi) is a conserved gene-regulation mechanism in all eukaryotic cells, where miRNA, siRNA, and shRNA interact with mRNAs in a sequence-specific way and lead to the cleavage or translational blockage of the gene. Since its discovery in 1996, it has been widely used as a powerful tool for gene function studies in biology laboratories worldwide. In addition, RNAi-mediated gene silencing (RNAi therapy) is believed to hold great promise for effectively treating many diseases. For example, RNAi has been proven to be effective in gene therapy for viral infections, genetic disorders, and cancers. siRNA delivery has seen great progress and exciting new results, bringing RNAi therapy much closer to clinical application. In addition to RNAi therapy, another area attracting attention is the relationship between the RNAi pathway and host immune system; that is, RNAi not only involves innate immunity but also adaptive immunity. A better understanding of this relationship and combination of gene silencing with induced immunity will lead to more effective and safer therapies for cancer or other diseases.

## Guest Editor

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## Deadline for manuscript submissions

closed (15 December 2023)

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*Cells* has become a solid international scientific journal that is now indexed on SCIE and in other databases. We have successfully introduced a special issues format so that these issues serve as mini-forums in specific areas of cell science. *Cells* encourages researchers to suggest new special issues, serve as special issues editors, and volunteer to be reviewers. Our main focus will remain on cell anatomy and physiology, the structure and function of organelles, cell adhesion and motility, and the regulation of intracellular signaling, growth, differentiation, and aging. We are open to both original research papers and reviews.

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