Lung cancer is the leading cause of cancer-related death worldwide, accounting for more than 1.4 million deaths per year. Despite improvements in early diagnosis and new therapeutic strategies, lung cancer remains the number one cause of cancer related deaths in both men and women, and the overall 5-year survival remains only of 10–20%.

The miRNAs are small non-coding RNAs that regulate gene expression at a post-transcriptional level by either degradation or inhibition of the translation of target genes. Mounting evidence suggests that miRNAs exert pivotal effects in lung carcinogenesis. And miRNA have recently been identified as attractive targets for diagnostics and therapeutic intervention in lung cancer. A better understanding of the role that miRNAs play in the disease will contribute to the development of new diagnostic biomarkers and individualized therapeutic tools.

Although advanced drugs have been tried in clinic, the therapeutic success has largely been hampered due to drug-resistance. miRNAs may be involved in the acquisition of resistance to a number of cancer treatments. Therefore, targeting miRNAs may be an attractive strategy for developing novel and more effective individualized therapies, improving drug efficiency. However, the challenge of development of safe and reliable delivery systems for miRNA-based therapy needs to be overcome before miRNA-based therapeutics become a reality.

In this special issue, we will summarize recent research advances in the relationship between miRNA and lung cancer, including miRNA roles in lung carcinogenesis, the involvement of miRNA in different mechanisms of drug resistance. And we'll discuss new miRNA as potential biomarkers for diagnostics, potential use of miRNA as therapeutic agents in lung cancer and new strategies to achieve in vivo tissue specific delivery.

**Schedule:**
Manuscript submission deadline: Jan 30th, 2017
Peer review due: Feb 28th 2017
Revision due: Mar 30th 2017
Notification of acceptance by the guest editor: Apr 5th 2017
Final manuscript due: May 15th 2017