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Sommario/riassunto	MicroRNAs (miRs) are small noncoding RNAs that function as post-transcriptional regulators of gene expression and have important roles in almost all biological pathways. Deregulated miR expression has been detected in numerous cancers, where miRs act as both oncogene and tumor suppressors. Due to their important roles in tumorigenesis, miRs have been investigated as prognostic and diagnostic biomarkers and as useful targets for therapeutic intervention. From a therapeutic point of view, two modalities can serve to rectify gene networks in cancer cells. For oncomiRs, a rational means is downregulation through antagomirs. Moreover, observations of the pathological reductions in tumor-suppressive miRs have inspired the concept of “miR replacement therapy” to enhance the amount of these miRs, thereby restoring them to normal levels. However, the clinical applicability of miR-based therapies is severely limited by the lack of effective delivery systems. Therefore, to understand the role of this new class of regulators, we need to identify the mRNA targets regulated by individual miRs as well as to develop specific, efficient, and safe delivery systems for therapeutic miRs.