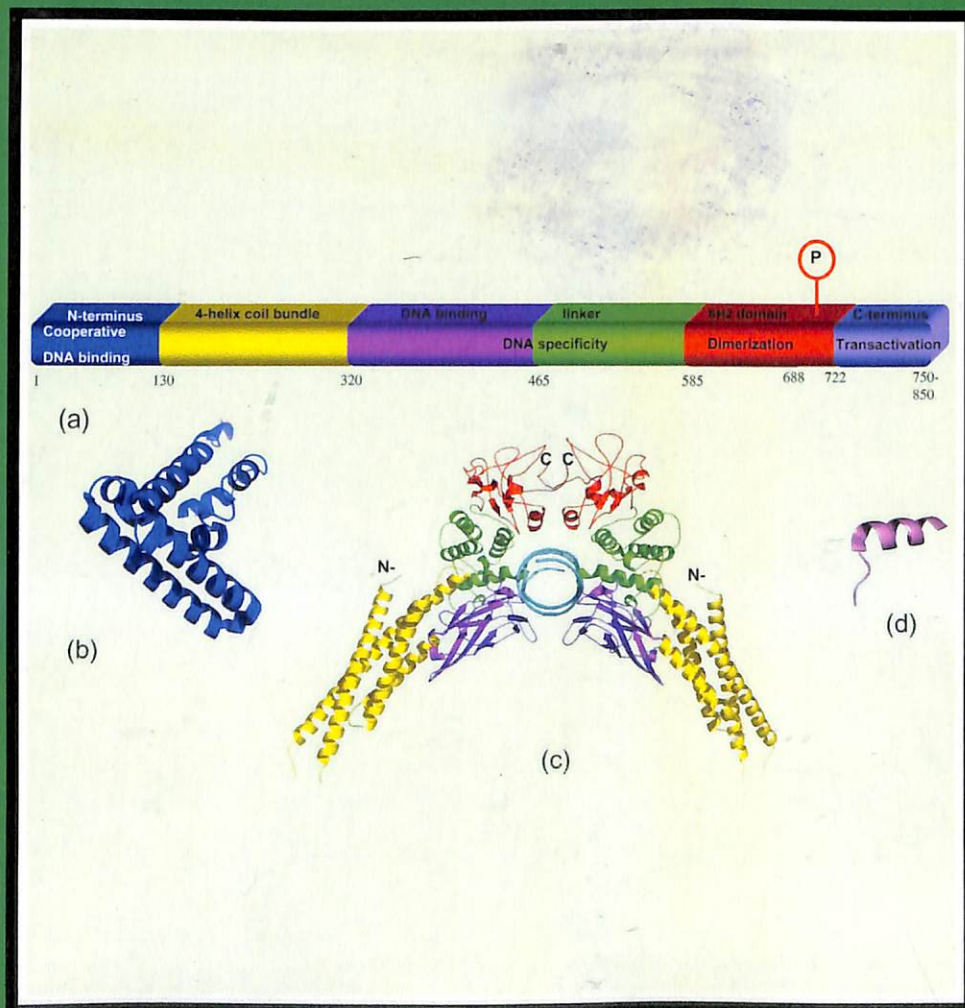


Current Cancer Drug Targets



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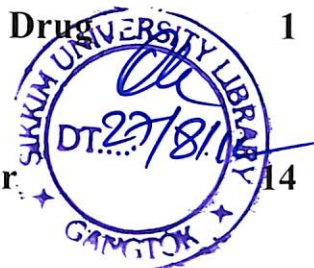


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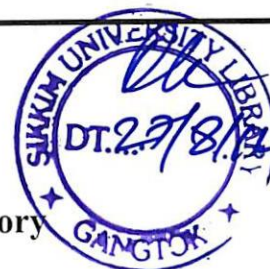
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From Target-based Agents to the New Era of microRNAs
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The cover image is taken from the article by Tagliaferri *et al* *Current Cancer Drug Targets* 2012, 12 (7). The biogenesis and the action of miRNAs are described: miRNAs are expressed as a pri-miRNA long transcript which is then cleaved by DROSHA to a pre-miRNA hairpin that translocates in the cytoplasm following exportin 5 binding. Pre-miR DICER digestion produces miR/miR* duplex. The RISC complex incorporates one strand of the duplex, the mature miRNA, driving it to the 3'UTR of mRNA target and inducing translational repression (partial homology) or mRNA deadenylation (perfect homology). Alternatively, mature miRNAs may bind the open reading frame or the 5'UTR of target genes inducing transcription activation or may act as decoy for translation repressor ribonucleoproteins.



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