Abstract

expression and cellular processes essential for tumorigenesis and tumor progression. These small non-coding RNAs, typically 18-25 nucleotides in length, regulate gene expression post-transcriptionally by binding to the 3' untranslated region (UTR) of target mRNAs, leading to mRNA degradation or translational repression. In cancer, dysregulation of miRNAs contributes to the hallmarks of cancer, including sustained proliferation, evasion of apoptosis, angiogenesis, and metastasis.

This comprehensive abstract provides a detailed overview of miRNA networks in cancer therapy, focusing on

cancer types, highlighting their dual functions as oncogenes (oncomiRs) 0.016 Tw T insights and therapeutic strategies. By elucidating

Ke d : M NA ; C ; M ;

In d c i n

M NA (NA) NA
18-25
3' ( )
NA (NA), NA
NA
1 .
C I M , NA
3 .
NA
H ,

***Corresponding author:** Kainth Gerard, Center for Natural and Human Sciences, Federal University of ABC, Brazil, E-mail: gerardkainth52638@yahoo.com

Received: 01-Jun-2024, Manuscript No: jcmp-24-140035, **Editor Assigned:** 04-Jun-2024, pre QC No: jcmp-24-140035 (PQ), **Reviewed:** 18-Jun-2024, QC No: jcmp-24-140035, **Revised:** 22-Jun-2024, Manuscript No: jcmp-24-140035(R), **Published:** 27-Jun-2024; DOI: 10.4172/jcmp.1000216

Citation: Kainth G (2024) MicroRNA Networks in Cancer Therapy: Molecular Insights and Therapeutic Strategies. J Cell Mol Pharmacol 8: 216.

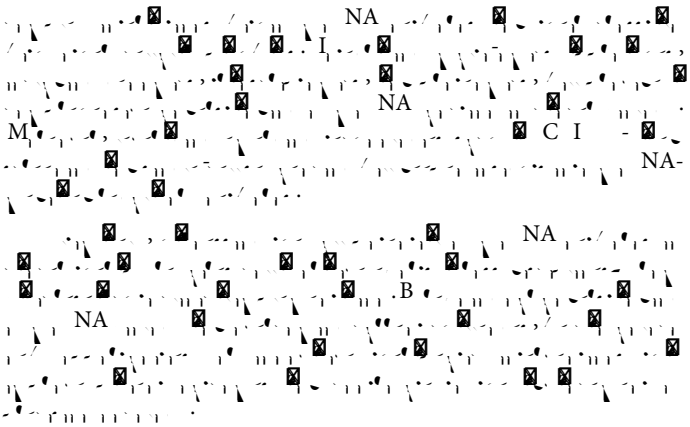
NA 5.

High- h gh e encing: NA.

NA . D (. ., DE 2,). NA .

2. M lec la in igh in mi na f nc i n

Ta ge edic i n and alida i n: (. ., ,) NA . E NA- . , NA (I), C I /C 9-



References

1. Du R, Sun W, Xia L, Zhao A, Yu Y, et al. (2012) Hypoxia-induced down-regulation of microRNA-34a promotes EMT by targeting the Notch signaling pathway in tubular epithelial cells. PLoS ONE 7: e30771.
2. Calin GA, Croce CM (2006) MicroRNA signatures in human cancers. Nat Rev Cancer 6: 857-866.
3. Guo Z, Maki M, Ding R, Yang Y, Zhang B, et al. (2014) Genome-wide survey tissues. Sci Rep 4: 5150.
4. Calin GA, Dumitru CD, Shimizu M, Bichi R, Zupo S, et al. (2002) Frequent deletions and down-regulation of micro- RNA genes miR15 and miR16 at 13q14 in chronic lymphocytic leukemia. Proc Natl Acad Sci USA 99: 15524-15529.
5. Hanahan D, Weinberg RA (2011) Hallmarks of cancer: The next generation. Cell 144: 646-674.
6. Hata A, Kashima R (2016) Dysregulation of microRNA biogenesis machinery in cancer. Crit Rev Biochem Mol Biol 51: 121-134.
7. Ambros V (2004) The functions of animal microRNAs. Nature 431: 350-355.
8. Ha M, Kim VN (2014) Regulation of microRNA biogenesis. Nat Rev Mol Cell Biol 15: 509-524.
9. Leichter AL, Sullivan MJ, Eccles MR, Chatterjee A (2017) MicroRNA expression patterns and signalling pathways in the development and progression of childhood solid tumours. Mol Cancer 16: 15.
10. Lin S, Gregory RI (2015) MicroRNA biogenesis pathways in cancer. Nat Rev Cancer 15: 321-333.