



***In-Silico* Target Prediction for hsa-mir-27a and Identification of Genes Involved in Breast Cancer**

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ABSTRACT MicroRNAs (miRNAs) are key gene regulators in all living organisms. They play an important role in various diseases including breast cancer (BC). Mutations within *MIR27a* gene have been linked with various types of cancers including breast cancer. Several tools are being used to identify potential targets for crucial miRNA genes. In the present study, online target prediction tools were used to investigate target genes that may be regulated by the mature form of *MIR27a* (hsa-mir-27a-3p and has-mir-27a-5p). A total of 52 target genes were found for hsa-mir-27a while for hsa-mir-27a-5p determined 45 targets. These target genes were further explored for their potential role in BC. It was found that the target genes are involved in vital biological processes in cancer progression and development. In conclusion, *MIR27a* may regulate several genes that are vital for BC development and progression. *MIR27a* may act as a promising new biomarker for anti-breast cancer therapy.