

MicroRNAs as potential diagnostic biomarkers and therapeutic targets in retinoblastoma(Rb): Current status and future perspectives

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Retinoblastoma(Rb) is known as a rare form of cancer that rapidly develops from the immature cells of a retina. This article focuses on a very important aspect of Rb based on biomarker discovery covers the pros and cons of using miRNAs as important prognostics, diagnostics and therapeutics biomarkers for this deadly disease. Proper monitoring and treatment are the cornerstones for the improvement of Rb outcomes. Several lines of evidence have shown that miRNAs can affect various pathogenic events involved in Rb. The miRNAs regulate more than one hundred gene targets, on the other hand, one gene can also be regulated by a number of miRNAs. These molecules can serve as diagnostic, prognostic and therapeutic biomarkers in various stage of Rb. Here, we highlighted the state of the art for both discovered miRNAs as biomarkers and also future need to ascertain if the use of miRNAs in combination with different systemic and conventional biomarkers and therapies would result in improved outcomes of Rb patients.