

Circulating microRNAs as biomarkers for controlled ovarian stimulation



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INTRODUCTION

Most assisted reproduction cycles use controlled ovarian stimulation before oocyte pick up, however, the optimal stimulation protocol has not been established and the development of tools to predict COS response is extremely important. MiRNAs are small non-coding RNAs that can be detected in the extracellular environment. Circulating miRNAs emerged as diagnostic and prognostic markers of several diseases; however, its utility as a biomarker of response to COS is still unknown.





The cel-miR-39 was spiked-in to calibrate the gene expression analysis

RESULTS

Figure 1- Exemple of large scale Real-Time gPCR race amplification quality and specificity

miR-181d-5p



Figure 2- miRNAs differentially detected in the groups of serum samples



CONCLUSION

The presence of specific miRNAs in serum may be a tool to predict the ovarian response to COS.

Detection of specific circulating miRNAs prior to the treatment could guide the COS and improve the outcomes of IVF.