Circulating miRNA as Biomarkers of Obesity

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Background

Obesity is a major problem for girls in the U.S.A.

Methodology

Aim:

- Standardize the technique for the extraction of miRNA from serum
- Do a pilot analysis to compare the levels of miRNA in obese AA adolescents before and after diet intervention

Results

Serum is a good source of miRNA for global association studies.

Diet intervention has an effect on the levels of the targeted miRNAs.

There was a general trend toward reduction in the levels all miRNA.

miR-193a showed the biggest decrease post intervention (p=0.04).

We may be able to reach more significance if we increase the number of samples analyzed.

Future Directions

Increase sample size.

Show a relationship with weight loss and targeted miRNAs.

Expand research with exercise intervention.

Deep sequencing to broaden the amount of targeted miRNAs.

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