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## Effects of hypoxic exercise training on microRNA expression and lipid metabolism in obese rat livers

Key words: Hypoxic training, Obese rat, Liver, MicroRNA, Lipid metabolism

## **Research Summary**

This research mainly focused on the effects of hypoxic exercise training on miRNA expression and lipid metabolism in obese rat livers, and summarized the key roles hypoxic exercise training played in the following aspects:

- Lose body weight and body fat
- Reduce serum lipid levels
- Alter the expression levels of miRNAs
- Regulate the mRNA transcription and protein translation of key enzymes involved in lipid metabolism

## Main results and conclusion

Hypoxic exercise training

alter the expression levels of six miRNAs, reduce the expression level of miR-378b in obese rat liver

elevate the resistance of high fat diet induced obesity decrease the protein expression of CPT1A and increase the protein expression ratio of FAS/CPT1A

decrease the fatty acid oxidation in obese rat liver

lose body weight and body fat

regulate the serum lipid levels