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Effect of dietary supplementation of *Bacillus subtilis* B10 on biochemical and molecular parameters in the serum and liver of high-fat diet-induced obese mice

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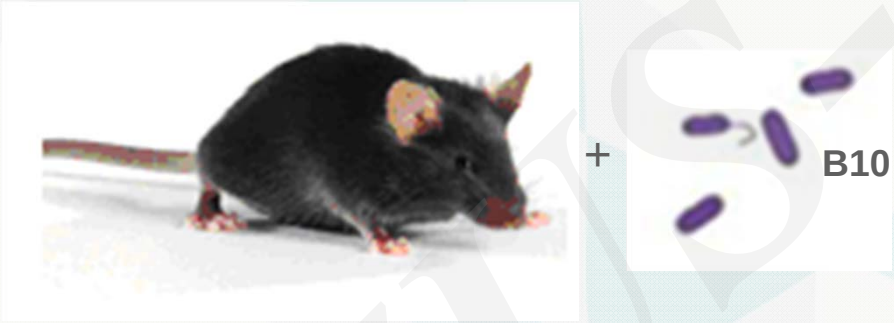
Key words: *Bacillus subtilis*, High-Fat Diet, Oxidative Stress, Lipid Metabolism

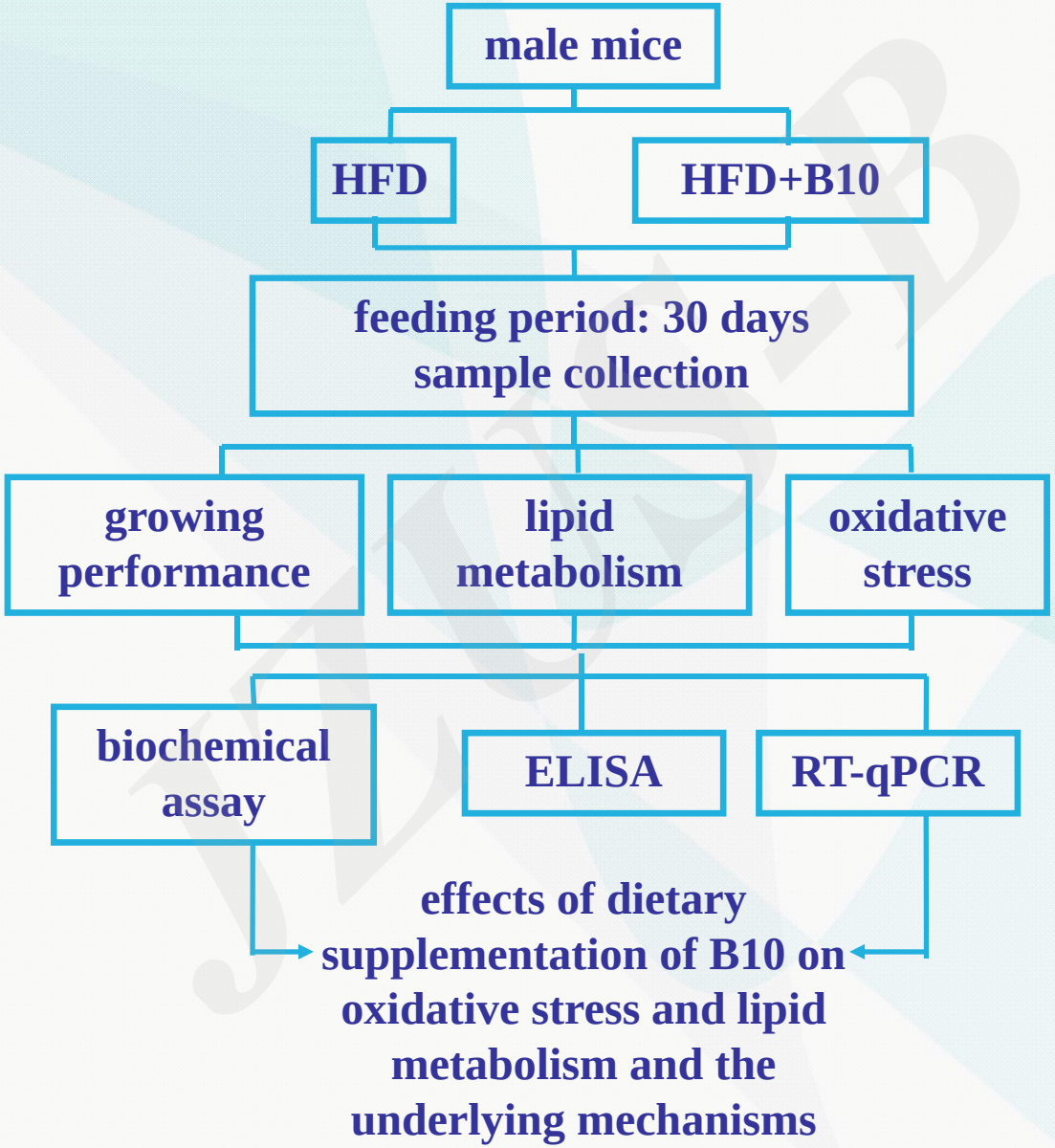
Research Summary

This artical mainly focused on the dietary supplementation of *Bacillus subtilis* B10 on biochemical and molecular parameters in the serum and liver of high-fat diet-induced obese mice

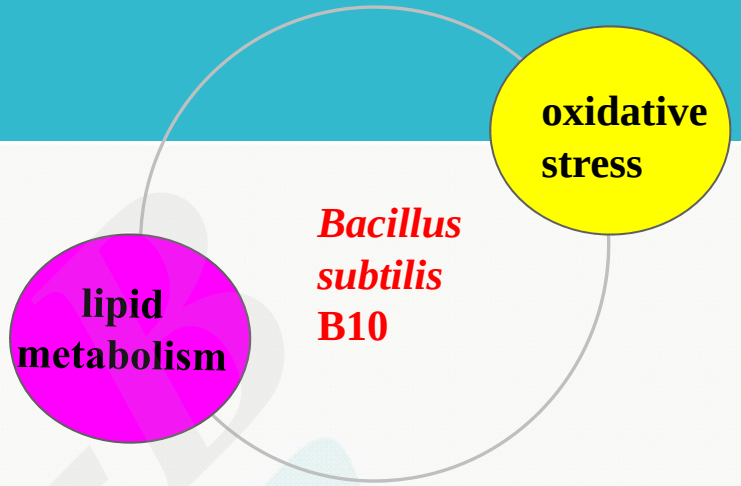


- **Body Weight and Food Intake**
- **Lipid Profile in Serum and Liver**
- **Hepatic mRNA Expressions of Genes Associated with Lipid Metabolism**
- **Hepatic Antioxidant Biochemical Values and DNA Damage**
- **Hepatic mRNA Expressions of Genes Associated with Oxidative Stress**

Main Ideas

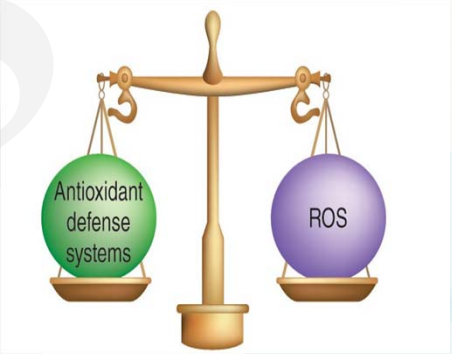

male mice
HFD
HFD+B10
feeding period: 30 days
sample collection
growing performance
lipid metabolism
oxidative stress
biochemical assay
ELISA
RT-qPCR
effects of dietary supplementation of B10 on oxidative stress and lipid metabolism and the underlying mechanisms

Results

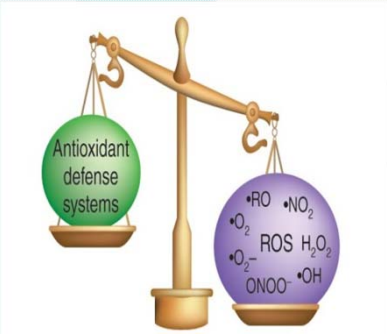


- The positive effect of B10 on lipid reduction may be due to the up-regulation of lipolysis and the down-regulation of lipid synthesis

- The anti-oxidative activity of B10 is reflected in the increased activity of GSH-Px, the regulation of antioxidant-related genes, like XO and p53



HFD



oxidative stress