

OBJECTIVES

Objectives of the present research work are as follows:

- I. To study the effect of Sitagliptin on metabolic syndrome, fatty liver, and hepatic oxidative stress in a high-fat diet-induced animal model of obesity.
- II. To analyze the potency of Sitagliptin on white adipose tissue inflammation, adiponectin expression, and hepatic fatty acid metabolism in experimentally induced obese mice with a focus on AMPK signaling.
- III. To investigate the effect of Sitagliptin on oxidative stress and mitochondrial biogenesis markers in white and brown adipose tissues in metabolically compromised obese mice.