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Deletion of NLRX1 increases fatty acid metabolism and prevents diet-induced hepatic steatosis and metabolic syndrome

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Deletion of NLRX1 Increases Fatty Acid Metabolism and Prevents Diet-induced Hepatic Steatosis and Metabolic Syndrome

RUNNING TITLE:

NLRX1 in NAFLD and metabolic syndrome

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KEYWORDS

Innate Immune Receptor NLRX1; Metabolic Syndrome; NAFLD; Metabolism; Fatty Acid Oxidation; Kidney disease

HIGHLIGHTS

- Hepatocyte energy metabolism is regulated by an innate immune receptor
- NLRX1 regulates hepatocyte energy metabolism by controlling mitochondrial OXPHOS and glycolysis
- Diet-induced NAFLD and metabolic syndrome development are prevented in NLRX1 deficient mice
- NLRX1 absence reduces steatosis due to increased fatty acid oxidation metabolism
- NLRX1 deficient mice are protected from western-diet associated kidney dysfunction

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