

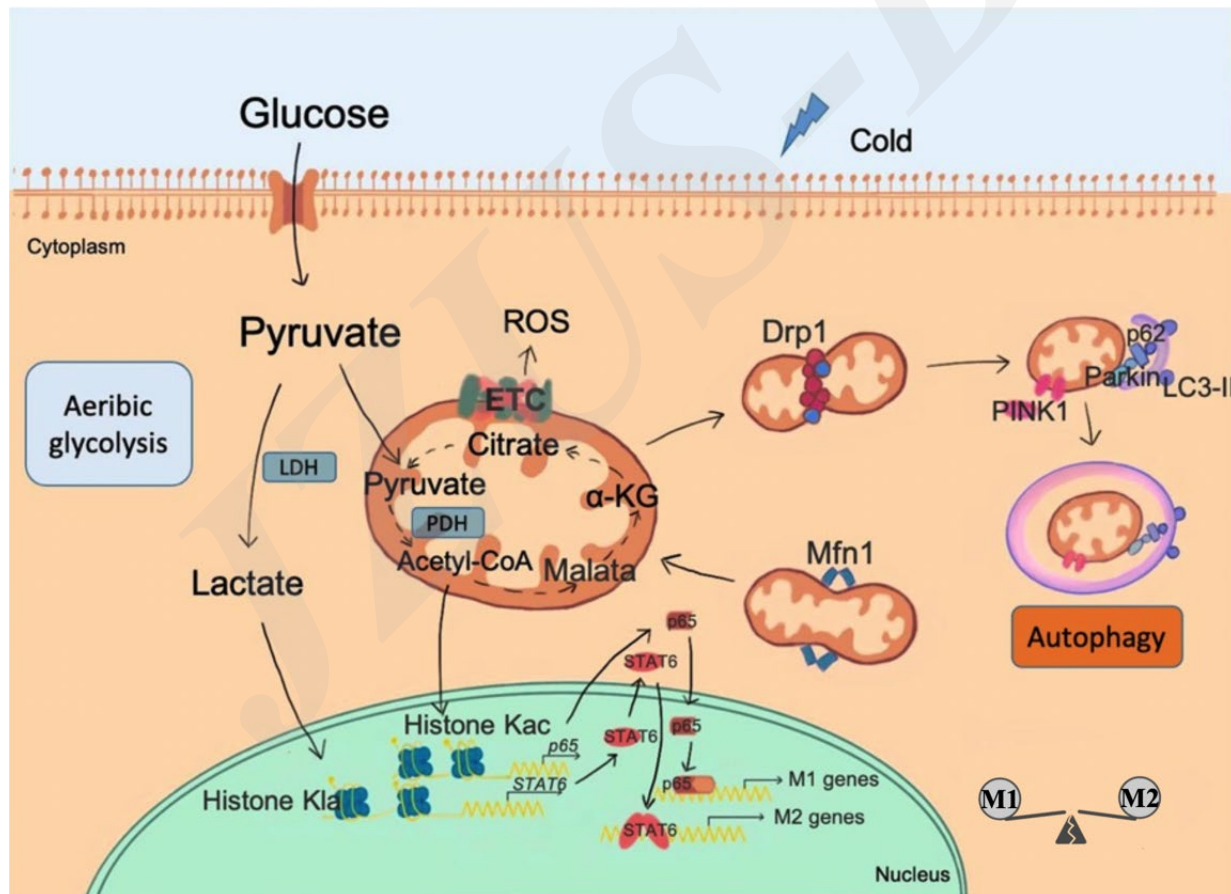
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Integrated metabolism and epigenetic modifications in the macrophages of mice in responses to under cold stress

Key words: Low temperature; Stress; Autophagy; Metabolic reprogramming; Histones

Research Summary

This research mainly focused on the impact of cold stress on immune balance. The present study identified that metabolic-related histone acetylation and lactylation are modulators of macrophage differentiation.



Main contents

The research consists of the following parts:

- Inflammation Induction Accompanied by Increased Macrophage Activation following Cold Exposure
- Metabolic Reprogramming Underlies PMs Differentiation following Cold Exposure
- Mitochondrial Dysfunction and Increased Mitochondrial Autophagy and Autophagy in PMs following Cold Exposure
- Cold Stress Induces Macrophage Differentiation via Histone acetylation and Histone lactylation

Innovation points

- Cold exposure-induced mitochondrial damage contributes to metabolic reprogramming of aerobic glycolysis in macrophages
- The differentiation of macrophages during cold stress may be the result of multilayered epigenetics regulated by histone acetylation and lactylation.

