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Follicle-stimulating hormone increases the intramuscular fat content and expression of lipid biosynthesis genes in chicken breast muscle

Keywords: Follicle-stimulating hormone, intramuscular fat, abdominal fat, chickens, mRNA expression



Research Summary

This article mainly demonstrated that FSH stimulated IMF accumulation in chicken breast muscle and summarized the key roles they played in the following aspects:

- **IMF accumulation**
- **Abdominal fat deposition**
- **Regulation of gene expression**



Innovation points

- **Introduction:** IMF is a crucial factor in the quality of chicken meat. The genetic basis underlying it is complex.
- **Summary :** FSH contributed to a better understanding of the mechanisms of lipid metabolism related to IMF deposition in chickens.
- **Emphasis:** This study demonstrated that FSH played an important role in IMF accumulation in female chickens for the first time.

Innovation points

A series of comprehensive figures and tables were generated to summarize the latest knowledge about IMF accumulation stimulated by FSH .

Fig 1 | Effect of FSH on TG content in breast muscle and abdominal fat weight.

Table 2 | Serum concentrations of FSH and E2 in 14-day-old female BJY chickens.

Fig 2 | The expression of lipid-related genes was assessed by qRT-PCR in 14-day-old female BJY chickens treated with FSH.

Fig 4 | PCA-plot for gene expression analysis.