

Cite this as: Chun-qi GAO, Yin-ling ZHAO, Hai-chang LI, Wei-guo SUI, Hui-chao YAN, Xiu-qi WANG, 2015. Heat stress inhibits proliferation, promotes growth and induces apoptosis in cultured lantang swine skeletal muscle satellite cells. *Journal of Zhejiang University-Science B (Biomedicine & Biotechnology)*, 16(6):549-559. [doi:10.1631/jzus.B1400339]

Heat stress inhibits proliferation, promotes growth and induces apoptosis in cultured lantang swine skeletal muscle satellite cells

Key words: Heat stress, Swine, Cell proliferation, Cell growth, Apoptosis, Akt/mTOR/S6K pathway

Research Summary

This study mainly focused on the proliferation, apoptosis and growth of Lantang swine skeletal muscle SCs are altered during heat stress(HS).

and summarized in the following aspects:

- **HS suppresses SCs proliferation and promotes SCs growth.**
- **HS induces apoptosis to decrease the number of cells**
- **HS promotes SCs growth via the Akt/mTOR/S6K pathway**

Innovation points

- **Introduction of the role of heat stress on SCs proliferation and apoptosis.**
- **Summary of HS suppresses SCs proliferation and induces apoptosis to decrease the number of cells.**

Innovation points

- The main finding of this study was that HS promotes SCs growth via the Akt/mTOR/S6K pathway.

