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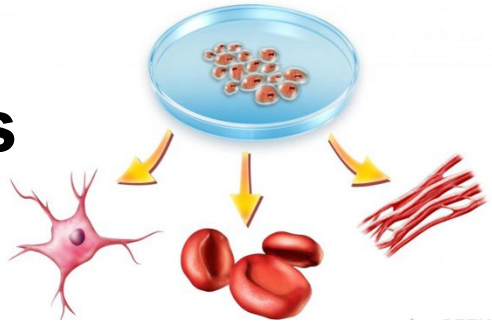
# *Aeromonas sobria* regulates the proinflammatory immune response in mouse macrophages via activating the MAPK, AKT and NF-κB pathways

**Key words:** **Aeromonas sobria, immune response, MAPK, AKT, NF-κB**

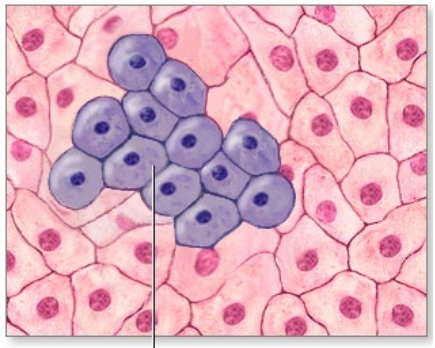
# *Research Summary*

**This article mainly focused on the *Aeromonas sobria* regulates the proinflammatory immune response in mouse macrophages**

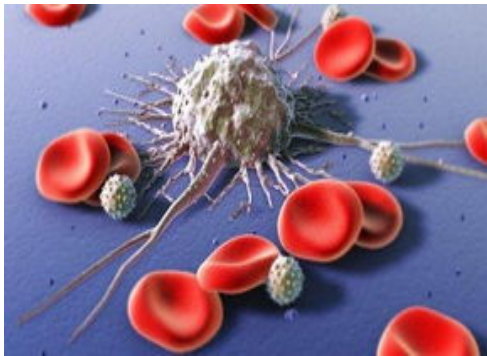
**From the following aspects**



- **inflammatory response**
- **MAPK**
- **AKT**
- **NF-κB**



Proliferation of cancer cells



# *Innovation points*

The present established a A. sobria infection model using primary mouse peritoneal macrophages; measured proinflammatory cytokines expression levels using ELISA methods; explored the activated pattern recognition receptors through immunofluorescence. Focusing on the NF-κB, MAPK, PI3K/ Akt and other signaling pathways closely related to inflammation, we explored the mechanism of A. sobria regulating the immune response of host cells, and provided a new target for the treatment of A. sobria infection.

# *Innovation points*

**A series of comprehensive figures were generated to summarize the latest knowledge about Aeromonas sobria regulates the proinflammatory immune response in mouse macrophages**

**Fig. 1 | The inflammatory response of PMφ triggered by *Aeromonas sobria*.**

**Fig. 2 | The p38 MAPK and p44/42 MAPK (Erk1/2) signaling pathways in PMφ were activated by *Aeromonas sobria* infection.**

**Fig. 3 | *Aeromonas sobria* infection enhanced the PMφ inflammatory response through the phosphorylation of p38 MAPK and p44/42 MAPK (Erk1/2)**

**Fig. 4 | *Aeromonas sobria* infection activated the AKT signaling pathway in PMφ**

**Fig. 5 | *Aeromonas sobria* infection decreased the PMφ inflammatory response through the phosphorylation of AKT**

**Fig. 6 | *Aeromonas sobria* infection activated the NF-κB signaling pathway in PMφ**

**Fig. 7 | Aeromonas sobria infection enhanced the PMφ inflammatory response through the activation of NF-κB signaling pathway**