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A dynamically evolving war between autophagy and pathogenic microorganisms

Key words: Autophagy; Pathogenic microorganisms; Bacteria; Viruses; Fungi; Parasites

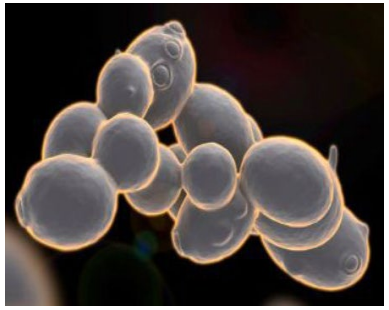
Research Summary

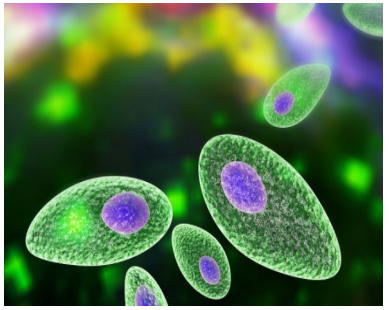
This review focuses on the roles and mechanisms of autophagy during infections of host cells by microbial pathogens, such as bacteria, viruses, fungi and parasites, and summarizes how they play in the dynamic war between pathogens and autophagy.





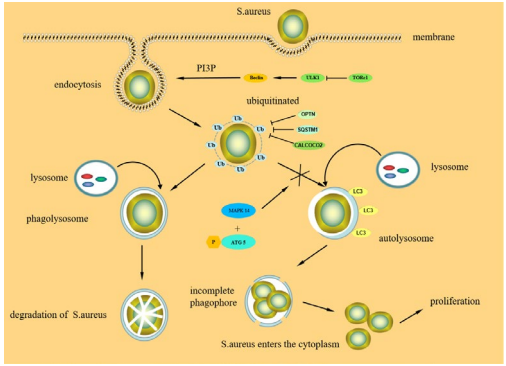
- **Bacteria and autophagy**
- **Viruses and autophagy**
- **Fungi and autophagy**
- **Parasites and autophagy**





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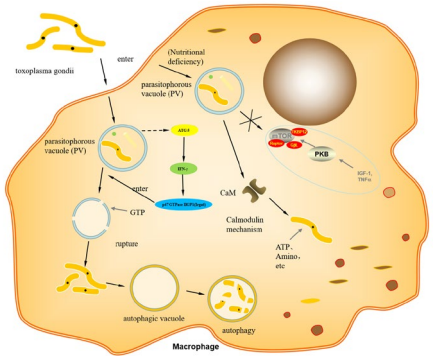
Innovation points



- **Introduction** on consensus-based disruption of autophagic signaling pathways by multiple strategies of pathogenic microbes

- **Summary** of recent research advances in the interaction between bacterial, viral, fungal and parasitic microorganisms and autophagy

- **Emphasis** on the roles and mechanisms of autophagy during pathogenic infections



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Innovation points

Typical mechanistic diagrams are presented to summarize the latest knowledge on the mechanisms of interactions between autophagy and pathogenic microorganisms

Figure 1 | The interaction between autophagy and bacteria.

Figure 2 | Regulation of cellular autophagy by the PI3K complex and Atg9 in S. cerevisiae.

Figure 3 | The interaction between autophagy and parasites.

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