



Diverse facets of intracellular *S. aureus*

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S. aureus remains a great problem on the healthcare system. Despite antimicrobial treatment, this pathogen can survive and cause a relapsing infection which cannot be cleared. *S. aureus* was considered an extracellular pathogen, but there was rising evidence that the staphylococci are able to invade various types of host cells. After host cell invasion, different courses of infection were observed such as the induction of cytotoxic effect by the expression of toxins and proinflammatory factors within the intracellular location, or by persisting within intact host cells for long time periods by downregulate the expression of many secreted virulence factors. The intracellular lifestyle may facilitate the long-term persistence as bacteria are largely protected against antimicrobial treatments and the host immune system. One of the strategies to survive within host cells is to switch to a quasi-dormant sub-population which is tolerant to antibiotics and able to evade the immune response. This alternative lifestyle has increased fitness in unfavorable conditions and is so-called small colony variants (SCVs). However, this phenotypic change is the result of several strategies employed by this pathogen. The different facets of intracellular *S. aureus* will be discussed in this presentation.

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