

Biofilm Dispersal and Its Impact in Bacterial Virulence

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The shift between mobile or immobile physiological stages is a phenomenon widely spread amongst living organisms. In eukaryotes, this is often associated with sexual reproduction and the production of dispersive biological elements. In bacteria, we now call this shift between free floating planktonic or sessile microorganisms the biofilm life cycle. A biofilm is defined as a community of bacteria attached to a surface and surrounded by a complex extracellular matrix. Biofilms are an important topic of research mainly due to their high resistance to antimicrobial therapy and high ability to evade the immune system. Importantly, some harmless commensal organisms can become virulent when growing within a biofilm, such as *Staphylococcus epidermidis*. Despite its clinical importance, biofilm dispersal, this is, the release of cells from the biofilm to the host, is still poorly understood. We now know that biofilm dispersal can either have intrinsic or extrinsic origins but the implications of dispersal cells in biofilm-related infections are still a matter of debate. In this lecture I will make an overview of the biofilm formation process, and will focus on the characterization of biofilm-released cells and their potential impact in virulence.



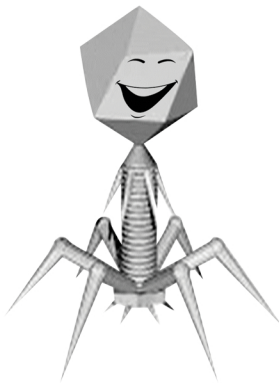
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ABSTRACTS



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