
Farming phages

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Résumé

Phages have been shown to be a driving force in shaping the behavior and evolution of their host. However, subtle but meaningful phage-host interactions that are heterogeneous or transient in nature likely tend to be overlooked with population level approaches. By studying phage infection dynamics with single cell resolution, the different possible fates and whereabouts of individual host cells and phage chromosomes throughout an active infection can be monitored in great detail. In the P22 – *Salmonella*Typhimurium model system, this approach revealed the existence of a phage carrier state causing the emergence of a transiently resistant subpopulation that seems to support phage – host coexistence. These intricate dynamics fuel the notion that phages have evolved to farm host populations.

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