



Phage-Host Interactions 2021

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Message from the Guest Editor

Phage–host interactions can be viewed through the natural life cycle of phages:

1. Host range of the phages: The determinants that play a role in the different aspects of the host range of the phages. These include, for example, the receptor binding proteins of the phages and the phage receptor structures on bacteria.
2. The defense mechanisms of the host bacteria. To prevent phage infections bacteria employ the restriction enzymes and the CRISPR/Cas systems. The phages fight back by producing anti-restriction and/or anti-CRISPR molecules.
3. The factors that phage use to take over the host metabolism.
4. The mechanisms phage uses to reach its own goals, for example, re-cycling host-derived macromolecules for building blocks of phage nucleic acids and proteins. Or how phages take over host transcription. Or what host functions are exploited by the phages for replication, transcription and translation.
5. The phage particle assembly and lysis of the host cells.
6. Temperate phages and the lysogenic life cycle.

In this Special Issue we would like to address all these different stages of phage infection.





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Message from the Editor-in-Chief

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