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Synergistic elimination of bacteria by phage and the innate immune system

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#### ACCEPTED MANUSCRIPT

### Highlights

- A mathematical model of phage therapy is proposed.
- The model incorporates immune saturation and immune evasion by bacteria.
- The model reveals a robust synergy between phage and host innate immunity.
- ullet Phage-immune synergy may help cure bacterial infections  $in\ vivo.$



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