



Benefits and Costs of Mutational Robustness in RNA Viruses



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ABSTRACT:

The accumulation of mutations in RNA viruses is thought to facilitate rapid adaptation to changes in the environment. However, most mutations have deleterious effects. Thus, tolerance to mutations should determine the nature and extent of genetic diversity in the population. I will present a combination of population genetics theory, computer simulation, and experimental evolution to examine the advantages and disadvantages of tolerance to mutations, also known as mutational robustness. Our findings may inform therapeutic strategies that cause extinction of otherwise robust viral populations.

Host: Maria D'Orsogna, Ph.D.

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