

Unique features of bat immunology and life history evolved in conjunction with flight enable the evolution of \uparrow **growth rate viruses** (r_R^*).

...while causing \downarrow **virulence** ($\alpha_{r_R}^*$) in bat hosts

Bat-evolved $\uparrow r_R^*$ viruses maximize **between-host transmission** ($\uparrow \beta_{r_R}^*$) ...

Bat-origin zoonoses retain \uparrow bat-optimized **growth rates** (r_R^*) upon spillover to humans.

\downarrow **Spillover host tolerance** for viruses evolves in phylogenetically distant bat Reservoirs (T_{vS}).

\uparrow **virulence** in **Spillover** hosts (α_S)

$\uparrow r_R^*$ and $\downarrow T_{vS}$ combine to yield \uparrow **virulence** in Spillover hosts (α_S).

