

**Table S1.** Evolutionary rates of pathogenic RNA viruses

Virus	Type	Evolutionary rate (10 <sup>-3</sup> sub/site/year)	Reference
HIV	Retrovirus	2.02 – 16.8	(1)
Poliovirus	+ssRNA	10.3	(2)
Influenza A	-ssRNA	1.43 - 1.16	(3)
SARS-CoV	+ssRNA	7.8	(4)
SARS-CoV-2	+ssRNA	0.8 - 6.58	(5)
Rotavirus	dsRNA	0.73	(6)
Hepatitis C virus	+ssRNA	0.48 – 0.91	(7)
MERS-CoV	+ssRNA	0.24	(4)

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