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Unexpected linearity: a first-order drug response curve observed and explained for SARS-CoV-2 in a hybrid mathematical model

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We observe, analyze and explain a pharmacokinetical phenomenon of extraordinary simplicity. Specifically, we show that the probability of infection extinction in a complex, non-deterministic hybrid mathematical model is a linear function of the virus removal rate under rather general circumstances. Joint work with Ferenc Bartha, Sadegh Marzban, Renji Han and Gergely Röst.