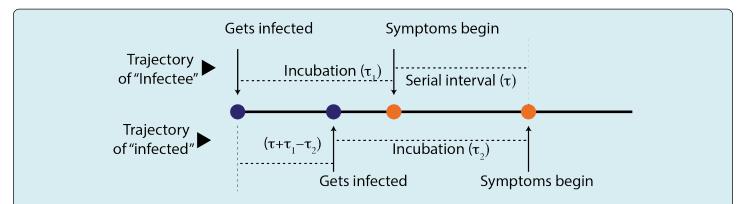
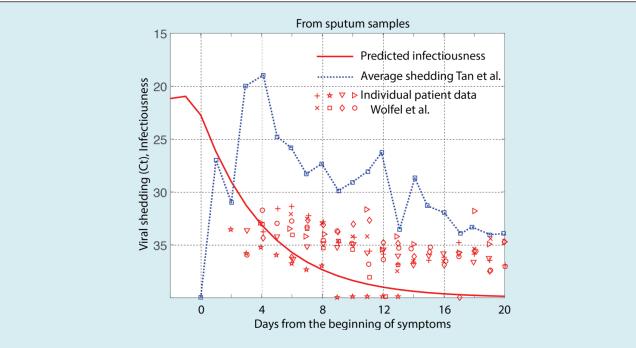


## **Supplementary Figures**



Supplementary Figure 1: Serial interval. The time between the two appearances of symptoms in the infected and the infected is illustrated. The infectiousness at  $\tau$ , and the incubation time's t1, t2 of the infected and the infected are all combined to find the chance of a serial interval of( $\tau$  + t2-t1) days.



**Supplementary Figure 2:** COVID-19 kinetics from sputum samples. The predicted drop ininfectiousness as shown in Figure 3 is compared with the viral shedding data (Ct) measured from the sputum samples. The longitudinal individual patient data from Wolfel, et al. [8] and the average profile from Tan, et al. [9] are compared.