Supplementary Data

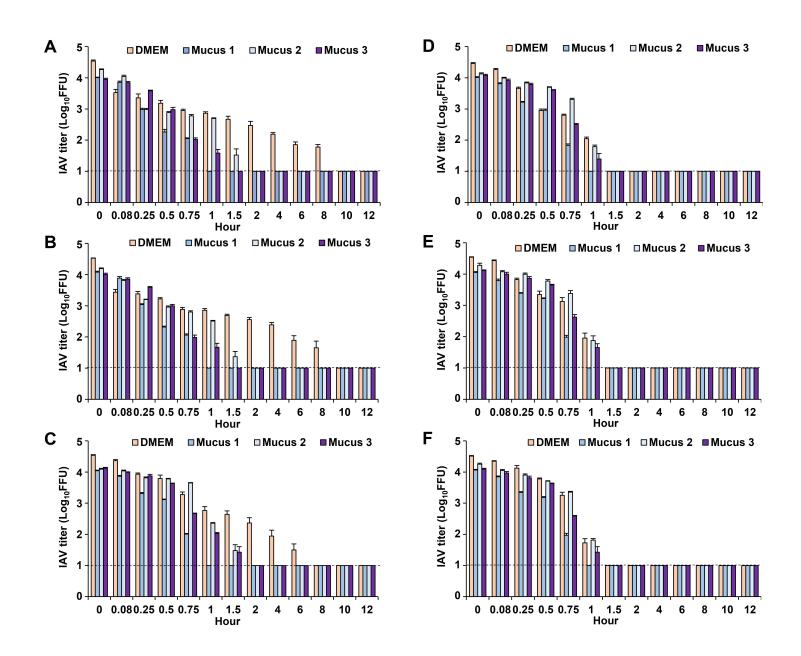
Survival of SARS-CoV-2 and influenza virus on the human skin: Importance of hand hygiene in COVID-19

Ryohei Hirose, Hiroshi Ikegaya, Yuji Naito, Naoto Watanabe, Takuma Yoshida, Risa Bandou,

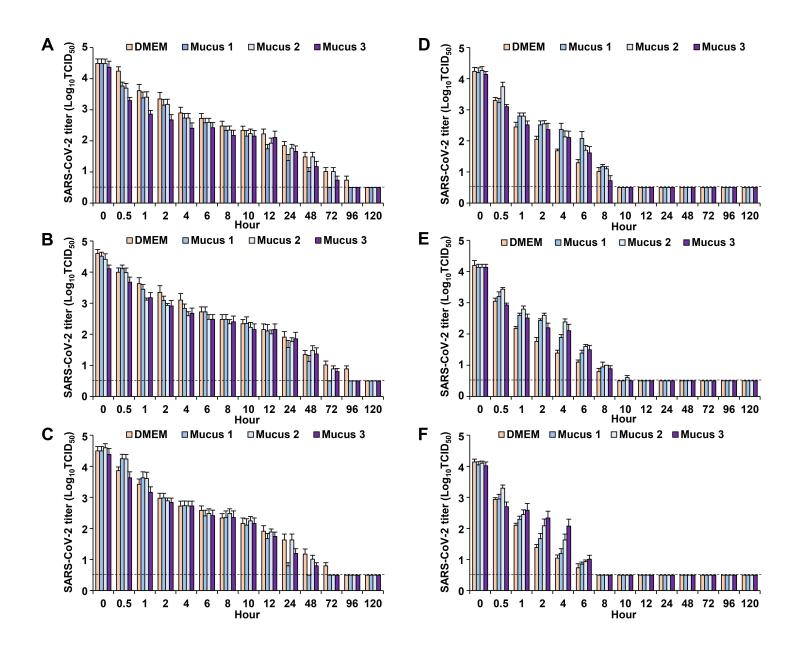
Tomo Daidoji, Yoshito Itoh, Takaaki Nakaya

Correspondence to: ryo-hiro@koto.kpu-m.ac.jp (Ryohei Hirose)

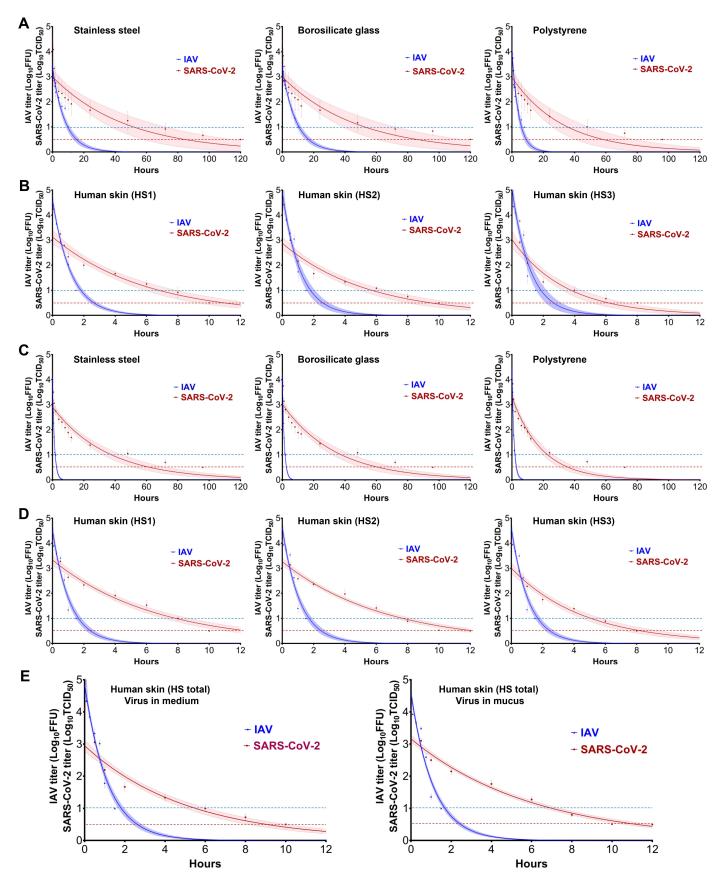
This PDF file includes: Supplementary Figure S1 to S3.



Supplementary Figure S1. Fluctuations in the titer of IAV surviving on the surface of stainless steel (A), borosilicate glass (B), polystyrene (C), and three skin samples [HS1 (D), HS2 (E), and HS3 (F)]. IAV was mixed with DMEM or 3 mucus samples (sample No. 1, 2, and 3) and applied in 5- μ L aliquots to each surface. Each surface was incubated in a constant environment (25 °C, 45–55% humidity) for 0–12 h; the virus on the surface was then recovered in 1 ml of medium, and titrated to determine the residual viral titer on the surface. IAV, influenza A virus; DMEM, Dulbecco's modified Eagle's medium. For each measurement, three independent experiments were performed, and the results are expressed as mean \pm standard error values.



Supplementary Figure S2. Fluctuations in the titer of SARS-CoV-2 surviving on the surface of stainless steel (A), borosilicate glass (B), polystyrene (C), and three skin samples [HS1 (D), HS2 (E), and HS3 (F)]. SARS-CoV-2 was mixed with DMEM or 3 mucus samples (sample No. 1, 2, and 3) and applied in 5-µL aliquots to each surface. Each surface was incubated in a constant environment (25 °C, 45–55% humidity) for 0–120 h; the virus on the surface was then recovered in 1 ml of medium and titrated to determine the residual viral titer of the virus remaining on the surface. SARS-CoV-2, severe acute respiratory syndrome coronavirus 2; DMEM, Dulbecco's modified Eagle's medium. For each measurement, three independent experiments were performed, and the results are expressed as mean ± standard error values.



Supplementary Figure S3. (A) Stability of the viruses in Dulbecco's modified Eagle's medium (DMEM) on stainless steel, borosilicate glass, and polystyrene surfaces. The

elapsed time was defined as an explanatory variable (X-axis), and the log virus titer of influenza A virus (IAV) or severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) was defined as an explained variable (Y-axis); least-squares linear regression analysis with logarithmic link function was performed for each virus to generate a curve of regression. The upper and lower confidence limits are represented by dotted curves. The blue and red dotted straight lines represent the detection limit titers of IAV and SARS-CoV-2, respectively. The same analysis was performed for the B, C, D, and E panels below. Data are expressed as the mean ± standard error of the mean of more than three independent experiments. (B) Stability of the viruses in DMEM on the surface of human skin models HS1, HS2, and HS3. (C) Stability of the viruses in mucus on the surface of human skin models HS1, HS2, and HS3. (E) Regression analysis integrating all data from human skin models HS1, HS2, and HS3.