Researchers develop a universal oral COVID-19 vaccine that prevents severe illness in hamsters

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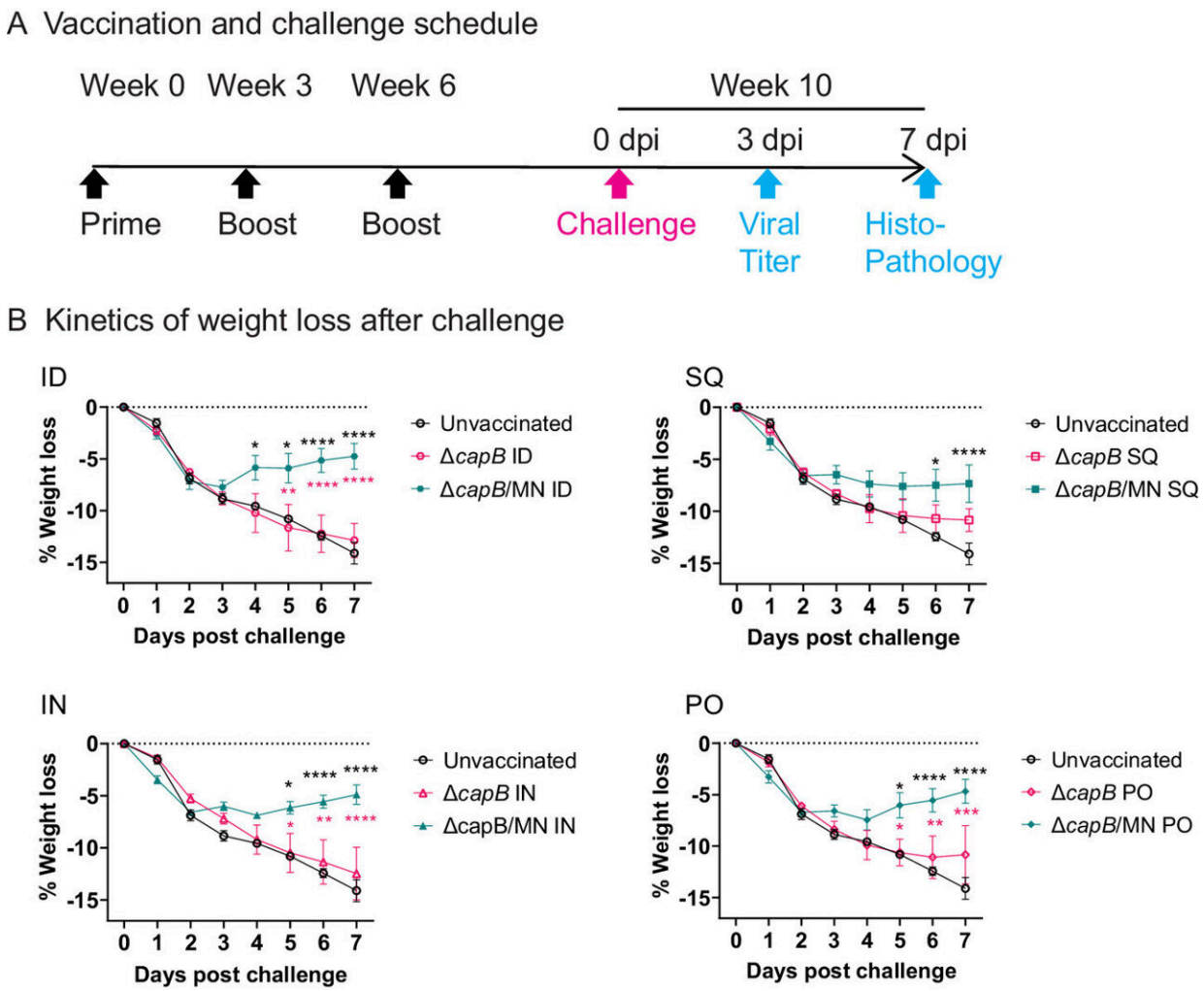

Experimental schedule and weight loss after challenge. (A) Experiment schedule. Syrian hamsters (8/group, 4 females, 4 males) were immunized ID, IN, SQ, or

PO three times on weeks 0, 3, and 6 with LVS ΔcapB vector (ΔcapB) or rLVS ΔcapB/MN (ΔcapB/MN) vaccine; challenged IN on week 10 with 104 PFU of SARS-CoV-2 (2019-nCoV/USA-WA1/2020 strain); and monitored closely daily for clinical signs of infection, including weight loss. Half of the animals were euthanized for lung viral titers at 3 days post challenge (dpi); the other half were euthanized for lung histopathology at 7 dpi. (B) Weight change after challenge. From days 0 to 3, n = 8/group; from days 4 to 7, n = 4/group. Data are mean percent weight loss ± standard deviation. Mean % changes were compared among groups on each day using a repeated measure (mixed) analysis of variance model since observations on the same animal over days are correlated. P values for comparing mean changes were determined to be significant using Tukey's adjusted criterion: *, P