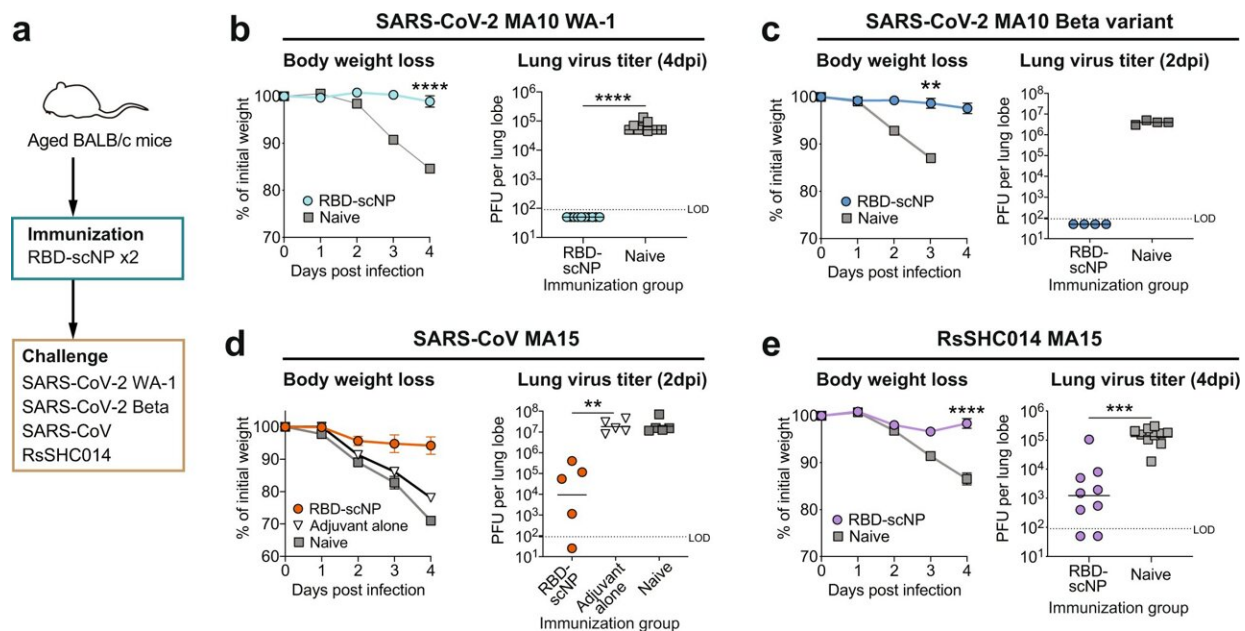


# New pan-coronavirus vaccine passes key experiments, demonstrates protection

October 28 2022, by Sarah Avery



Two doses of RBD-scNP vaccination protected mice from challenges of SARS-CoV-2 variants and other betacoronaviruses. **a** Schematic of the mouse challenge studies. 11-month-old female BALB/c mice ( $n = 10$  per group) were immunized intramuscularly twice with adjuvanted RBD-scNP and challenged with SARS-CoV-2 mouse-adapted 10 (MA10) WA-1, SARS-CoV-2 MA10 Beta variant, SARS-CoV-1 mouse-adapted 15 (MA15), or Bat coronavirus (CoV) RsSHC014 MA15. GLA-SE was used as adjuvant in the SARS-CoV challenge study, and 3M-052-Alum was used in the other challenge studies. **b** Weight loss ( $n = 10$  per group) and lung virus titers ( $n = 10$  per group) at 4 days post-infection (dpi) of the SARS-CoV-2 MA10 WA-1 challenged mice. **c** Weight loss ( $n = 5$  per group) and lung virus titers ( $n = 4$  per group) at 2 dpi of the SARS-CoV-2 MA10 Beta variant challenged mice. **d** Weight loss ( $n = 10$  per group) and lung virus titers ( $n$

= 5 per group) at 2 dpi of the SARS-CoV-1 MA15 challenged mice. e Weight loss (n = 10 per group) and lung virus titers (n = 10 per group) at 4 dpi of the Bat CoV RsSHC014 MA15 challenged mice. For weight curves, data are presented as mean values  $\pm$ SEM. For lung virus titers, each dot indicates one mouse and bars indicate geometric mean values of each group. P-values: ns not significant, \*p

Citation: New pan-coronavirus vaccine passes key experiments, demonstrates protection (2022, October 28) retrieved 25 April 2024 from <https://medicalxpress.com/news/2022-10-pan-coronavirus-vaccine-key.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.