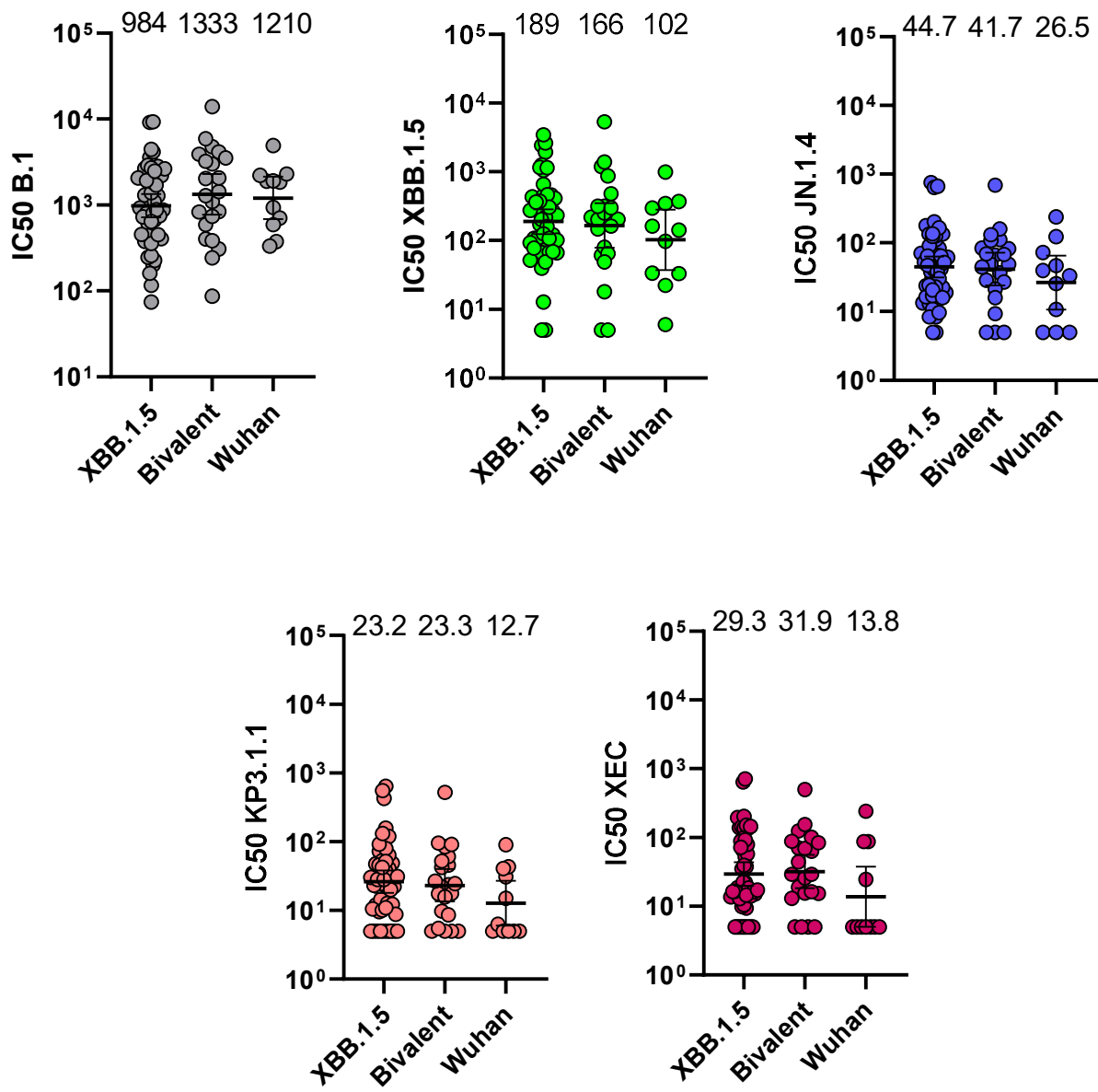


## Supplementary information:

**Supplementary Figure 1: Neutralizing titers against SARS-CoV-2 variants following vaccination.** Neutralizing titers against B.1, XBB.1.5, JN.1.4, KP.3.1.1 and XEC in serum samples collected in April/May 2024 divided into groups based on last administered vaccine type. Monovalent XBB.1.5 vaccine was administered < 265 days before serum collection (n = 48), bivalent BA.1/Wuhan or BA.5/Wuhan was administered 339 – 589 days before serum collection (n = 22) and monovalent Wuhan based vaccine was administered 594 – 904 days before serum collection (n = 11). Samples with recently reported infection between time points T5 and T6 were excluded from the analysis (n = 16). The number above each column indicates geometric mean titer. The data presented are IC50 neutralizing titers, with geometric mean  $\pm$  95% CI. Significant differences were analyzed by one-way ANOVA with Tukey's multiple comparison test.

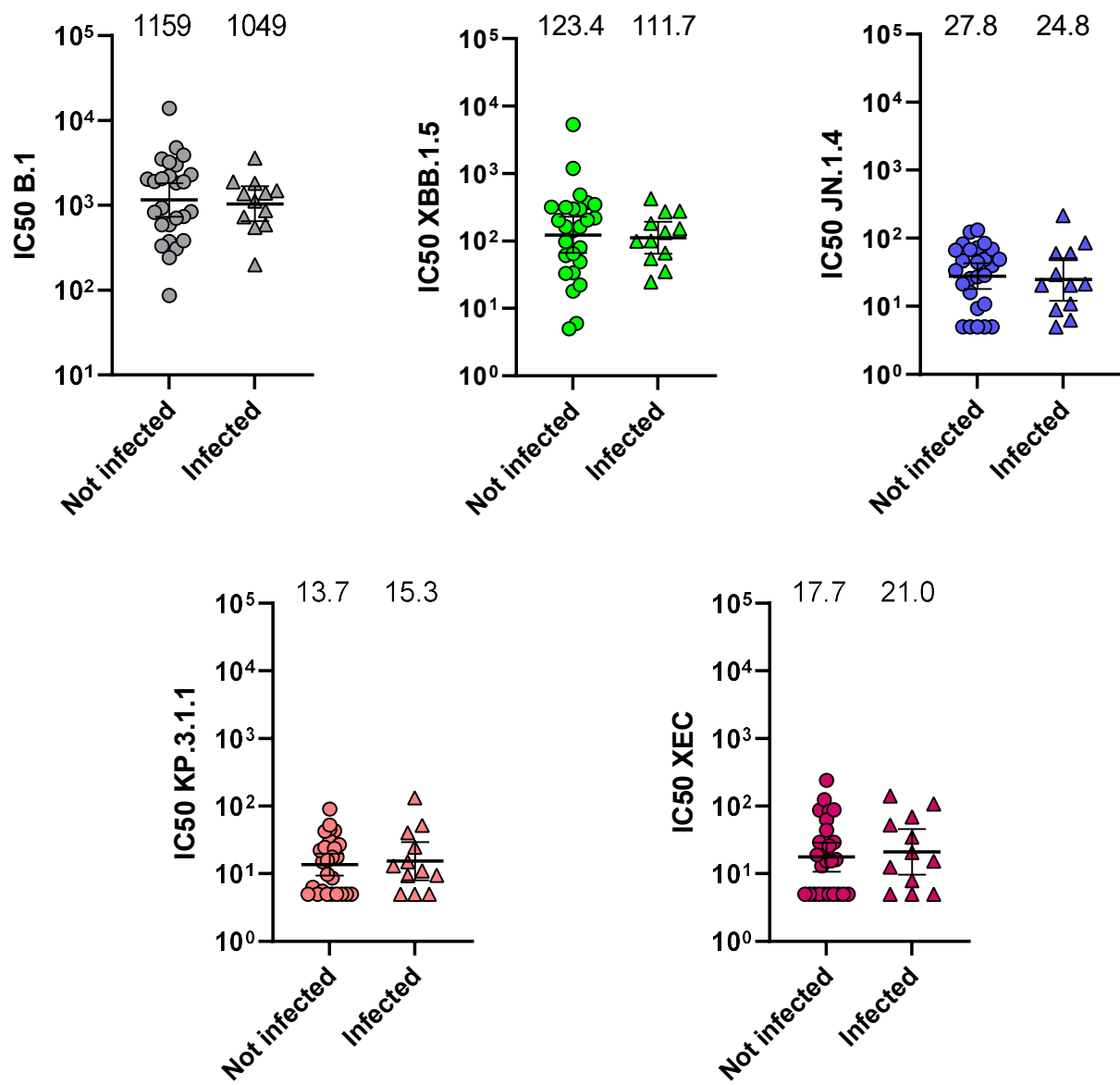
**Supplementary Figure 2: Neutralizing titers against SARS-CoV-2 variants following recent infection. A)** Neutralizing titers against B.1, XBB.1.5, JN.1.4, KP.3.1.1 and XEC in serum samples collected in April/May 2024 from donors that have reported a recent infection between time point T5 and T6 (n = 12) vs donors that have reported not being infected (n = 26). Donors that received an XBB.1.5 boosted dose between T5 and T6 (n = 52), and donors did not report infection status between T5 and T6 (n = 7) were excluded from the analysis. **B)** Neutralizing titers against B.1, XBB.1.5 and JN.1.4 in 9 individuals who donated sera at time points T5 and T6, and who have not reported being infected or vaccinated with the XBB1.5 booster between T5 and T6. **A – B)** The number above each column indicates geometric mean titer, and the data presented in **A)** are IC50 neutralizing titers, with geometric mean  $\pm$  95% CI. Significant differences were analyzed by **A)** Mann-Whitney test and **B)** Paired t-test.

# Supplementary Figure 1



# Supplementary Figure 2

A



B

