

Supplemental information

**Seroconversion rates following COVID-19
vaccination among patients with cancer**

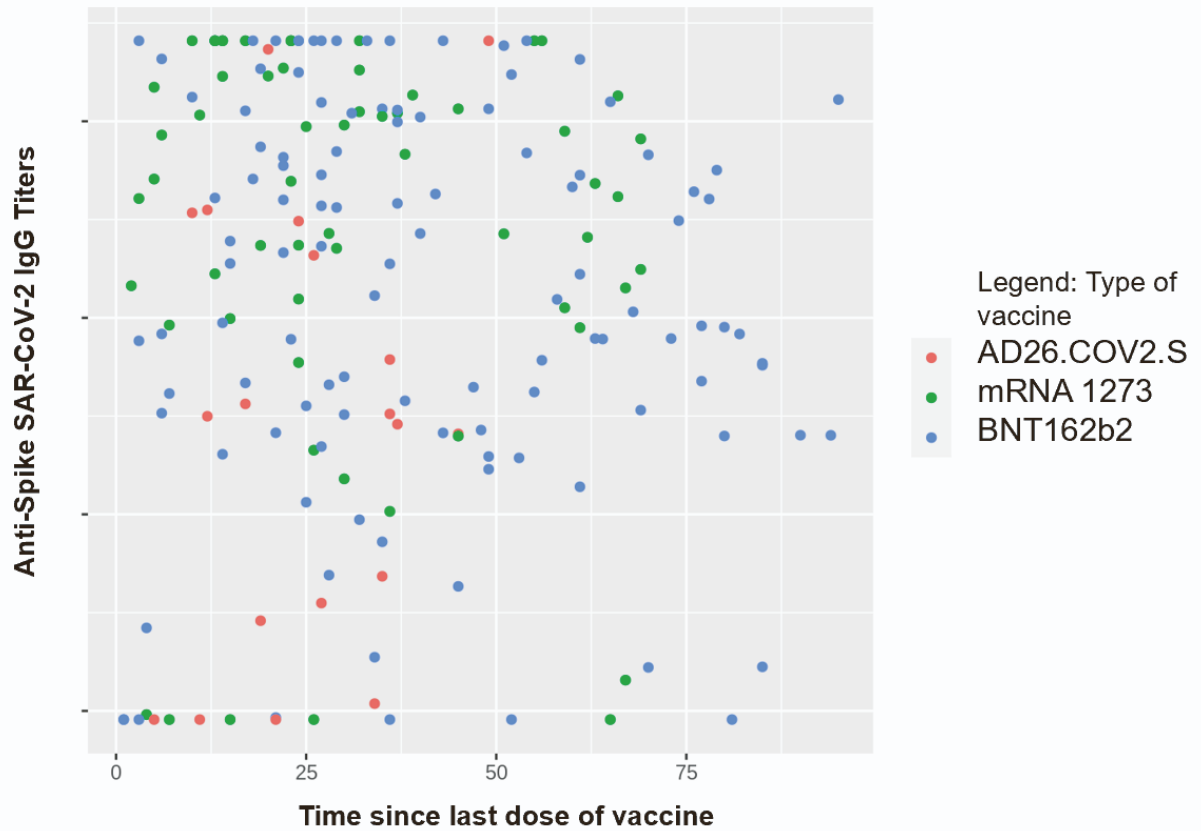
Astha Thakkar, Jesus D. Gonzalez-Lugo, Niyati Goradia, Radhika Gali, Lauren C. Shapiro, Kith Pradhan, Shafia Rahman, So Yeon Kim, Brian Ko, R. Alejandro Sica, Noah Kornblum, Lizamarie Bachier-Rodriguez, Margaret McCort, Sanjay Goel, Roman Perez-Soler, Stuart Packer, Joseph Sparano, Benjamin Gartrell, Della Makower, Yitz D. Goldstein, Lucia Wolgast, Amit Verma, and Balazs Halmos

Supplementary Table 1: Characteristics of control cohort. Related to Table 1.

	Baseline characteristics of controls
Age (Median(Range))	64 (37-82) years
Range	37-82 years
Sex	
Male	10 (38%)
Female	16 (62%)
Prior history of COVID	5 (19%)

**Supplementary Table 2: Comparison of SARS-CoV-2 IgG spike with different variables.
Related to Table 3**

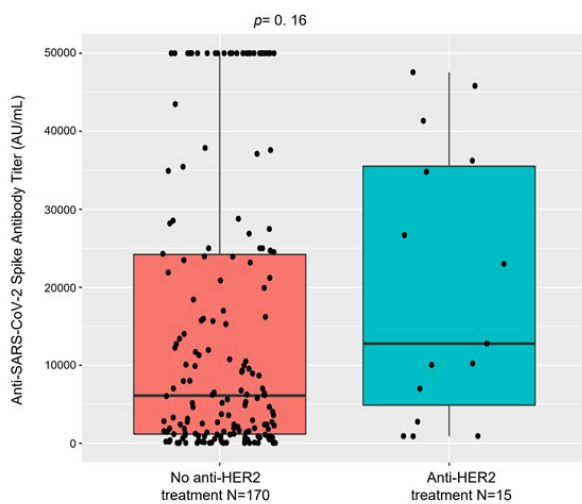
	Negative anti-SARS-CoV-2 spike IgG	Positive anti-SARS-CoV-2 spike IgG	<i>p</i> value
<i>Race</i>			
White	3	40	0.4574
Hispanic	5	73	
African American	3	61	
Asian	1	9	
Other	1	4	
<i>Time since transplant</i>			
Transplant < 365 days	1	2	1
Transplant >365 days	6	17	
<i>Time since anti-CD20</i>			
Anti-CD20 exposure <365 days	1	4	1
Anti-CD20 exposure > 365 days	6	12	
<i>Chemo within 48 hours</i>			
Yes	3	35	0.7
IgG seroconversion rate vs age			0.13



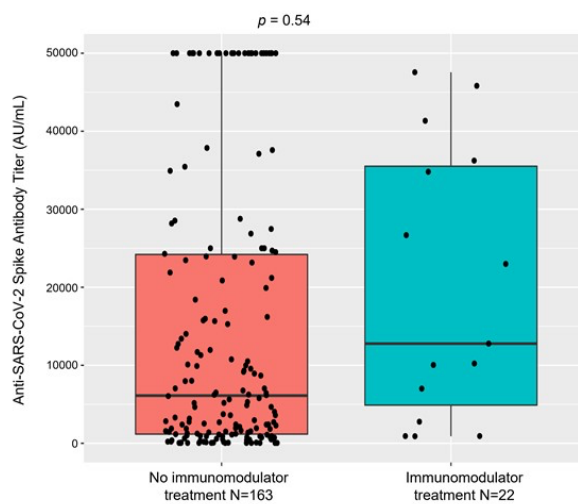
Supplementary figure 1: Multivariate analysis between type of vaccine and titer controlling for time since vaccination. Related to Figure 2.

Scatter plot showing relationship between SARS-CoV-2 IgG titer and time since vaccine for different types of vaccine. The relationship between vaccine type and titers remains significant even after accounting for the effect of time to vaccine as shown in multivariate analysis with the *p* values being 0.00682 and 0.00278 for BNT162b2 and mRNA 1273 vaccines, respectively.

A

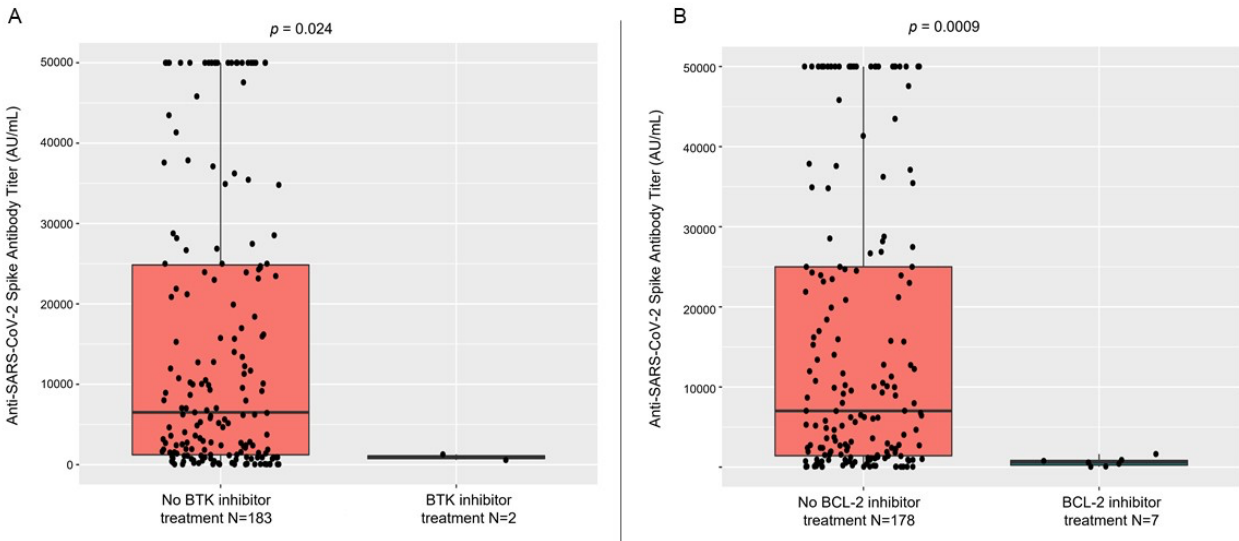


B



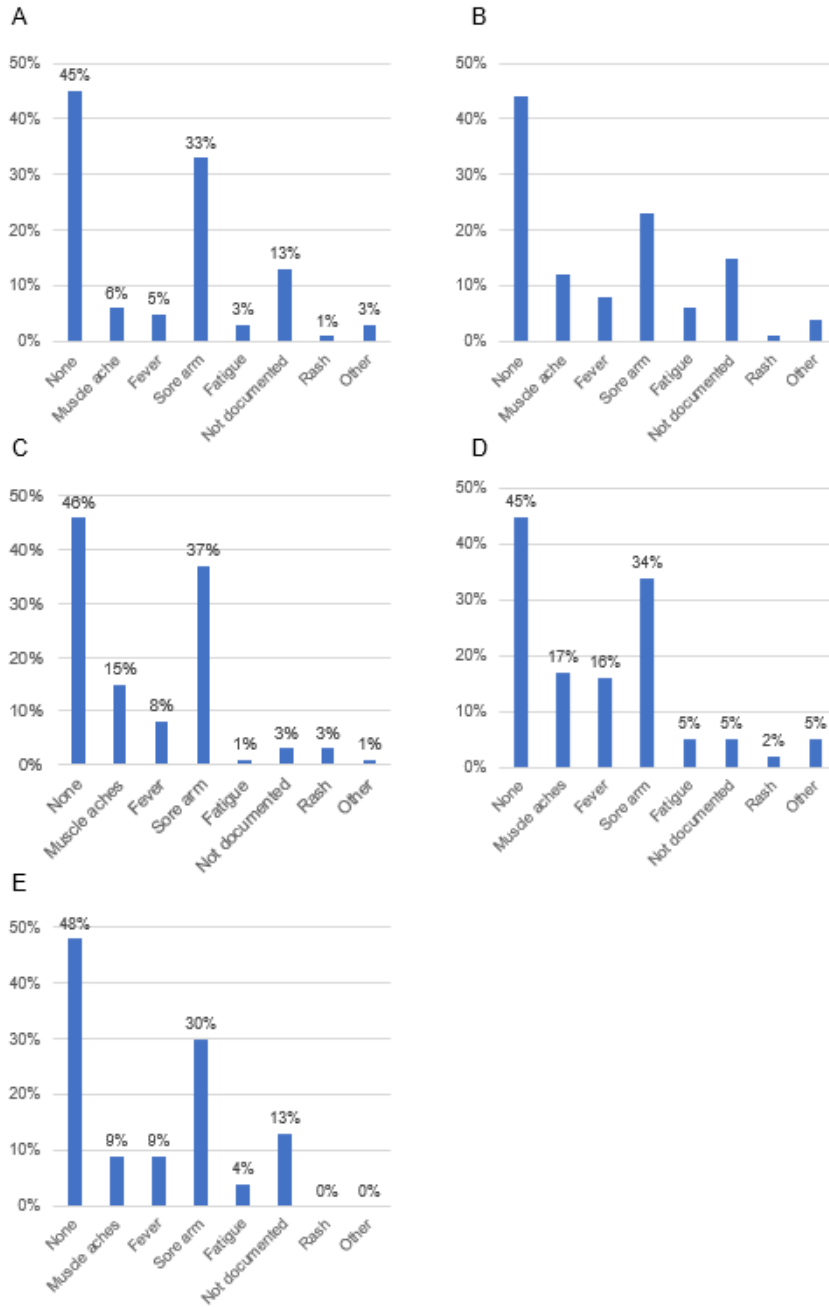
Supplementary Figure 2.: Association of anti-SARS-CoV2 spike IgG with Anti-HER2 and Immunomodulator Therapies. Related to figure 3, 4 and 5.

Spike protein antibody titers after full vaccination did not significantly differ in patients receiving active therapy (A), anti-HER2 therapy (B) or immunomodulators. Differences assessed by Kruskal Wallis Test. Box plots showing median (horizontal bar), the 75th and 25th quartiles and the error bars depicting the largest and smallest values (up to 1.5 times the interquartile range).



Supplementary Figure 3.: Association of anti-SARS-CoV2 Spike IgG with BTK inhibitor and BCL2 inhibitor Therapies. Related to figure 3, 4 and 5.

Spike protein antibody titers after full vaccination were significantly lower in patients who had received (A) BTK inhibitors (B) or BCL-2 inhibitors. Differences assessed by Kruskal Wallis Test. Box plots showing median (horizontal bar), the 75th and 25th quartiles and the error bars depicting the largest and smallest values (up to 1.5 times the interquartile range).



Supplementary Figure 4: Adverse effects following COVID-19 vaccination. Related to Table 1.

A. Frequency of adverse effects from BNT162b2 dose 1.

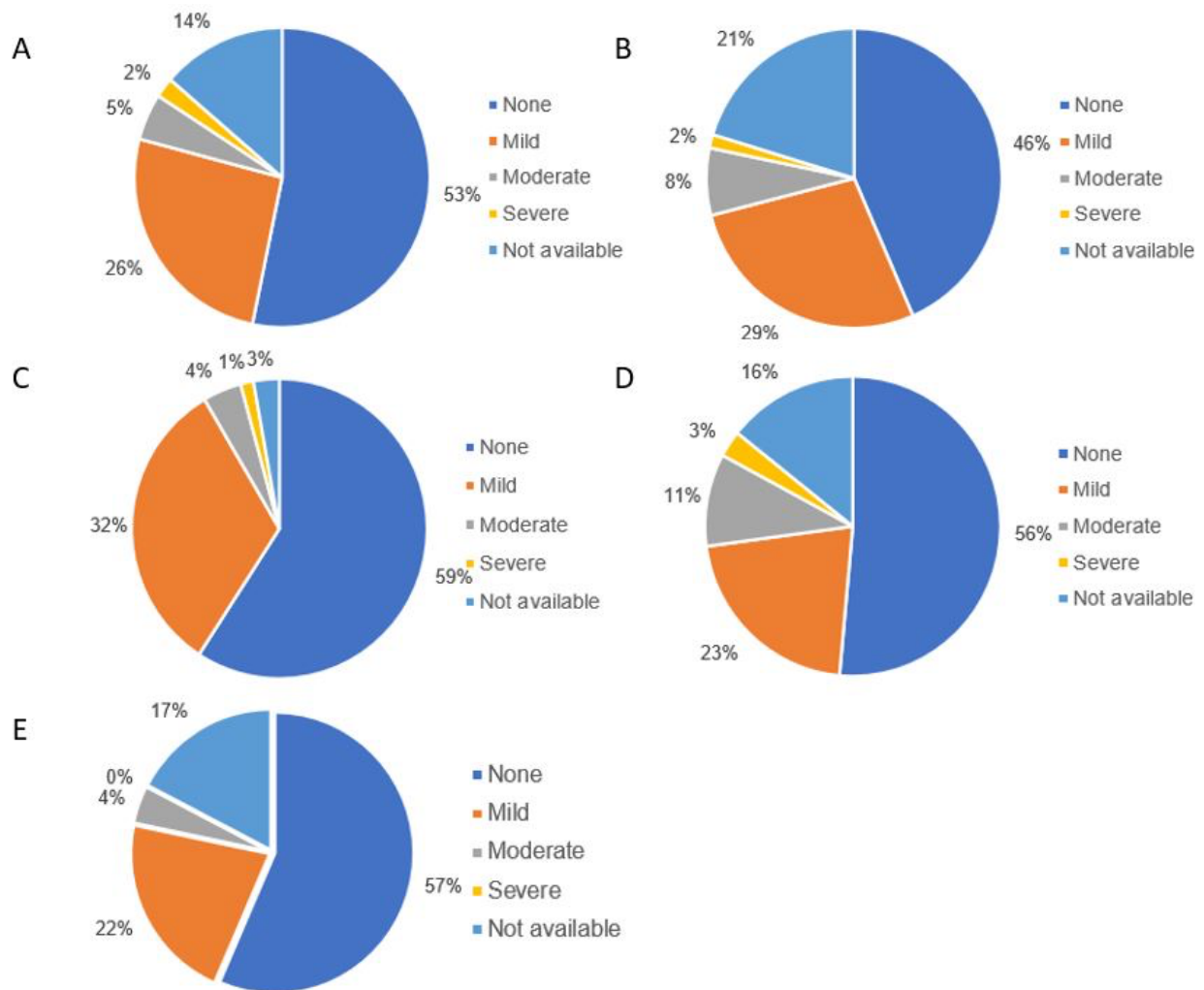
B. Frequency of adverse effects from BNT152b2 dose 2.

C. Frequency of adverse effects from mRNA 1273 dose 1.

D. Frequency of adverse effects from mRNA 1273 dose 2.

E. Frequency of adverse effects from Ad26.COVS.S.

X axis shows class of adverse event reported, Y axis represents percentage of patients.



Supplementary Figure 5: Severity of vaccine adverse effects. Related to Table 1.

A. Severity of adverse effects from BNT162b2 dose 1.

B. Severity of adverse effects from BNT152b2 dose 2.

C. Severity of adverse effects from mRNA 1273 dose 1.

D. Severity of adverse effects from mRNA 1273 dose 2.

E. Severity of adverse effects from Ad26.COVS.S.