

## **Heterogeneous immunogenicity of SARS-CoV-2 vaccines in cancer patients receiving radiotherapy**

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**Supplementary Figures S1-3**

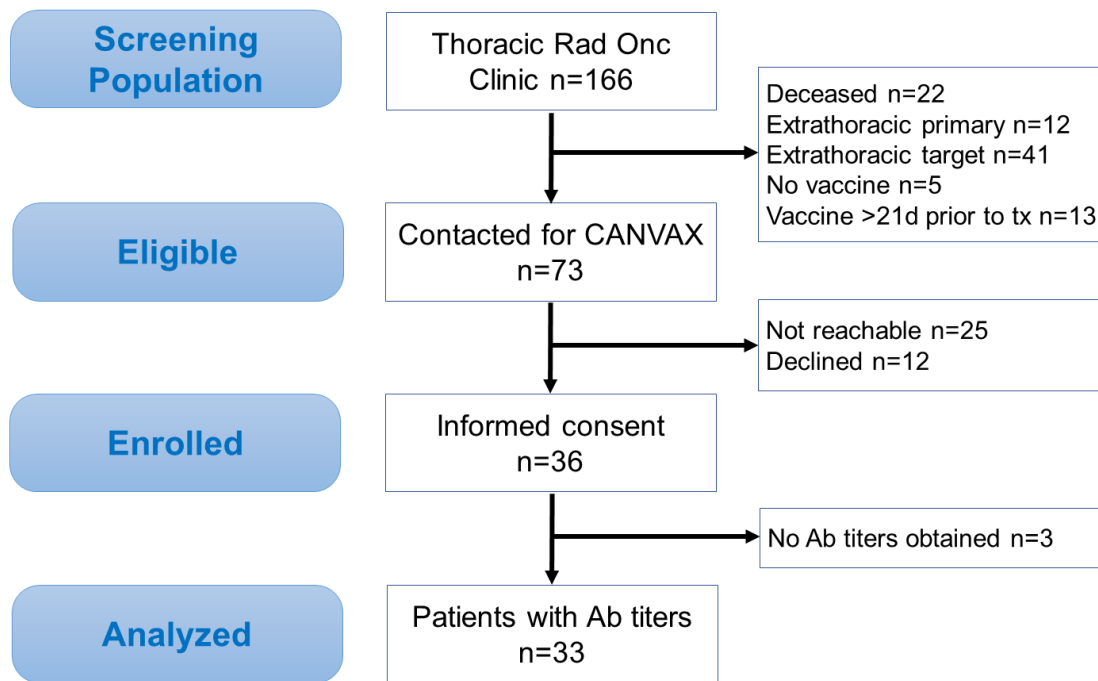


Figure S1. Modified CONSORT diagram. Consecutive patients who were treated by the Thoracic Radiation Oncology Service from December 2020 through April 2021 were screened. Patients who underwent thoracic radiotherapy for lung cancer and also received a SARS-CoV-2 vaccine were eligible for this analysis. d, days; tx treatment; Ab, anti-spike antibody following vaccination.

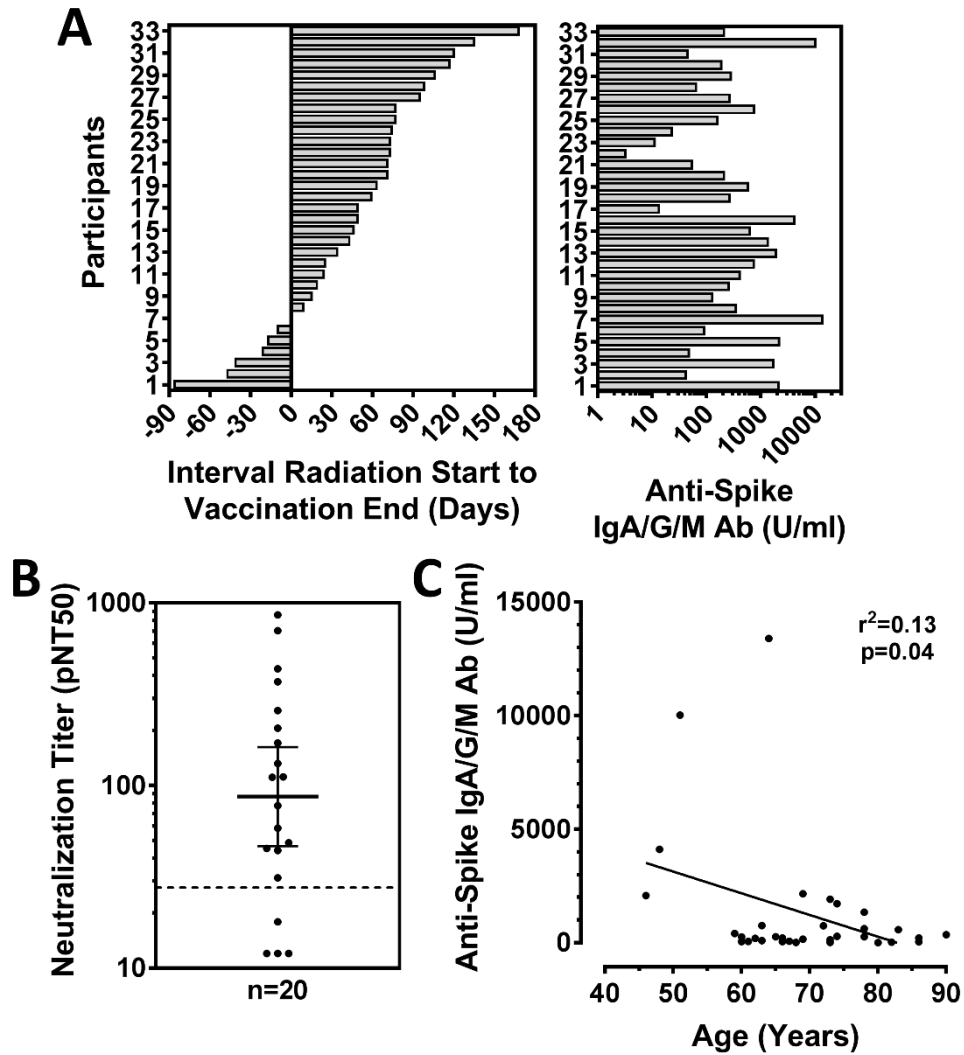


Figure S2. A) Left, Distribution of time intervals between start date of radiotherapy and second day of SARS-CoV-2 mRNA vaccination or single day of other vaccination for the 33 participants. Right, distribution of spike antibody concentrations as a function of time interval between radiotherapy and vaccination timing. B) Distribution of neutralization titers available for 20 participants derived as described under Figure 1B. Line and error bars represent geometric mean  $\pm$  95% CI. C) Correlation of spike antibody concentrations with participants' age at time of vaccination. Solid line, linear regression.

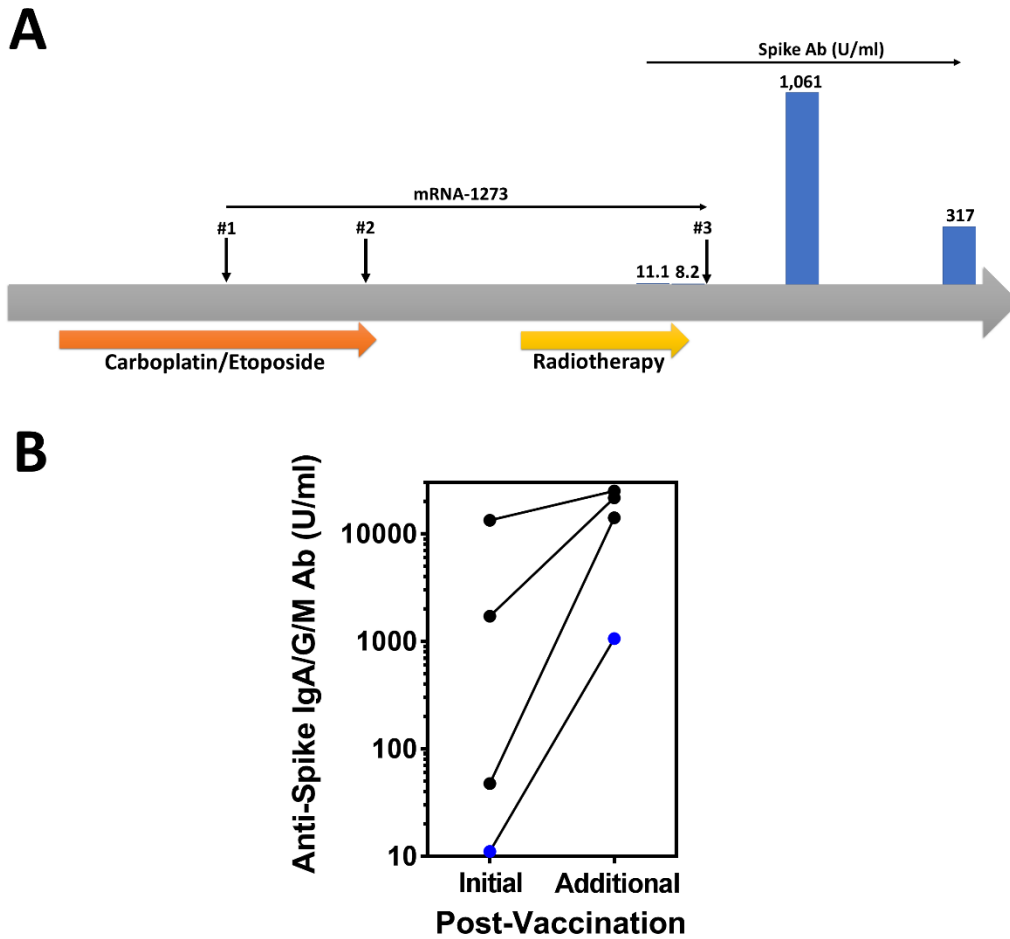


Figure S3. Additional vaccine doses. A) Illustration of treatment and SARS-CoV-2 vaccination course over a ~ 6 ½ month period in a male participant who was treated for stage II small cell lung carcinoma starting in January 2021. He suffered from interstitial lung disease as well as rheumatoid arthritis. He was taking an immunosuppressive agent which, together with the receipt of cytotoxic chemotherapy, was associated with a very low anti-spike antibody titer after administration of two vaccine doses. A third vaccine dose administered shortly thereafter resulted in a substantially increased antibody titer within four weeks. A lower antibody titer was observed seven weeks later. B) Spike antibody concentrations in four participants following initial vaccination and after the administration of additional vaccine doses. Blue dots, participant shown in Panel A.