

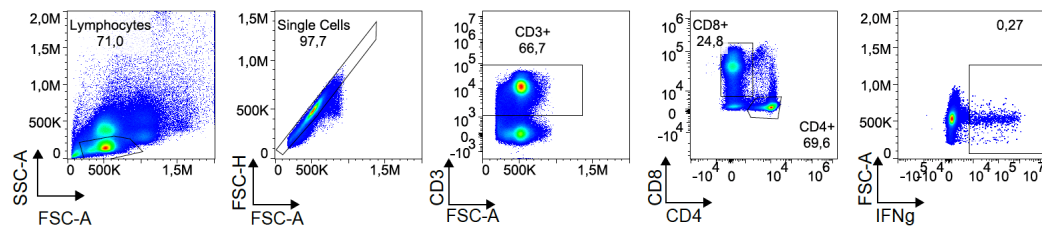
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2 **Fig. S1: Correlation of tumor control and antibody titers.** Anti SARS-CoV-2 Spike specific IgG titers (U
3 ml⁻¹) compared between and healthy donors (HD; n = 20) and cancer patients receiving antibody
4 therapy (A), B cell depleting therapies (B), corticosteroids (C), chemotherapy (D), checkpoint
5 inhibition (ICI; E) or immunotherapy with concomitant chemotherapy (Cht-ICI; F). Serum samples
6 were obtained 14 days post 2nd dose BNT162b2. Patients were distinguished by their tumor control,
7 with (florid) and without (nonflorid) detectable tumor mass. Symbols represent individual
8 participants. Mann-Whitney test was performed to calculate significance with *p<0.05, **p<0.01,
9 ***p<0.001, ****p<0.0001 and ns not significant.

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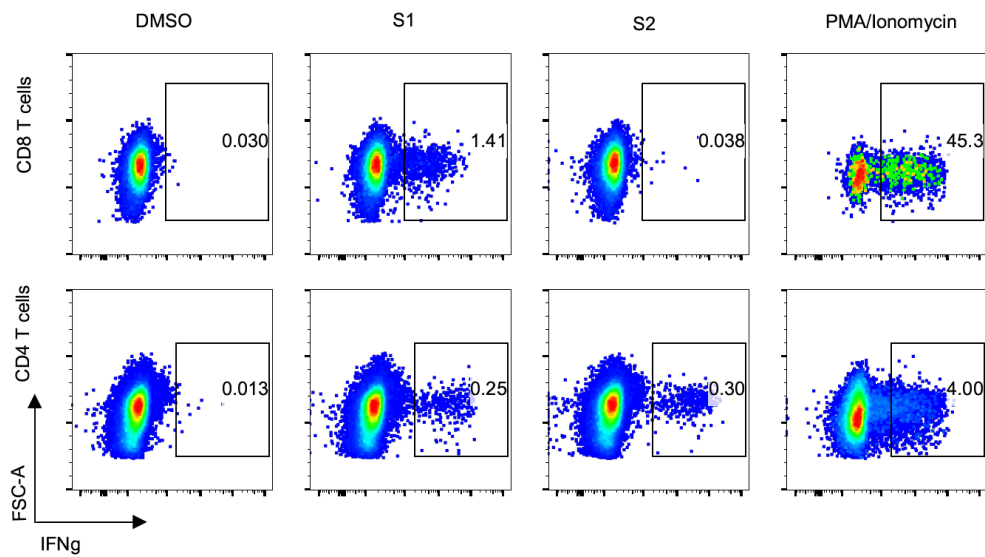
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13 **Fig. S2: Gating strategy**14 Flow cytometric gating strategy of IFN γ producing CD4 $^+$ and CD8 $^+$ T cells.

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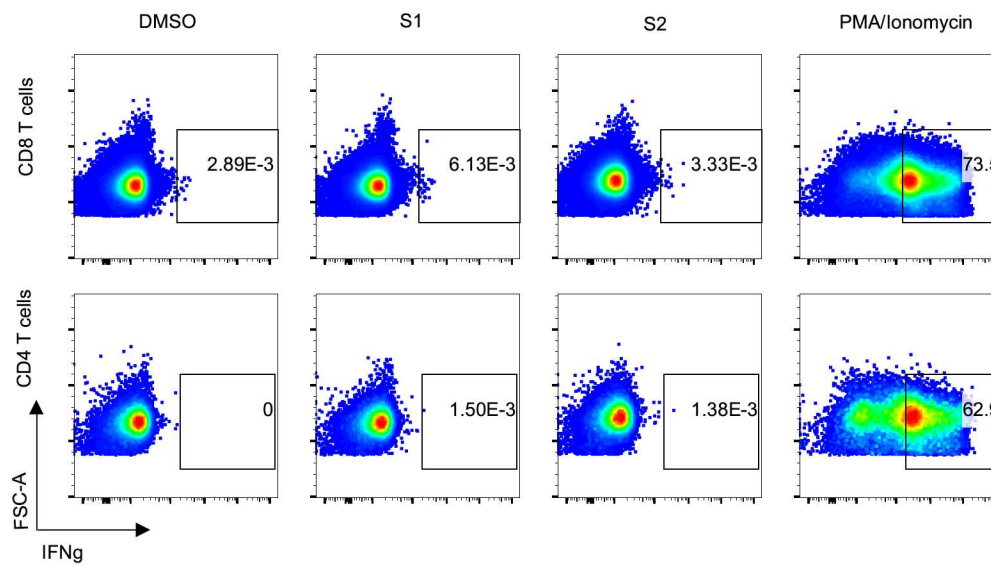


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17 **Fig. S3 T cell response to BNT162b2 mRNA vaccination in cancer patients receiving checkpoint**
18 **inhibition.**

19 Representative flow cytometry plots showing IFNg expression of CD8⁺ (upper row) and CD4⁺ (lower
20 row) T cells after stimulation with DMSO (negative control), spike pool 1 (S1), spike pool 2 (S2) and
21 PMA and Ionomycin (positive control), respectively.

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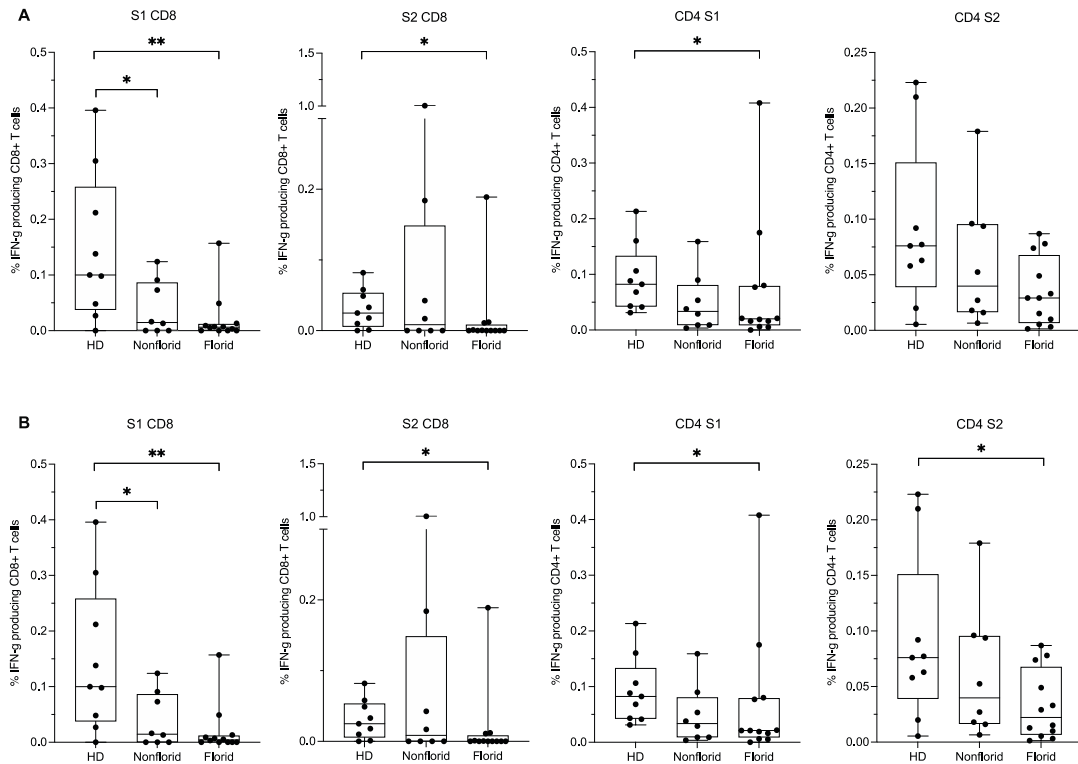


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24 **Fig. S4 T cell response to BNT162b2 mRNA vaccination in cancer patients receiving B cell depleting**
25 **therapy.**

26 Representative flow cytometry plots showing IFN γ expression of CD8 $^+$ (upper row) and CD4 $^+$ (lower
27 row) T cells after stimulation with DMSO (negative control), spike pool 1 (S1), spike pool 2 (S2) and
28 PMA and Ionomycin (positive control), respectively.

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31 **Fig. S5: Correlation of tumor control and T cell response.** Percentage of IFN γ producing CD8⁺ T cells
 32 CD4⁺ T cells in healthy donors (HD, n = 9) and cancer patients receiving chemo (A) or cortisone (B)
 33 therapy after stimulation with spike pool 1 (S1) or spike pool 2 (S2) 14 days post 2nd dose BNT162b2.
 34 Patients were distinguished by their tumor control, with (florid) and without (nonflorid) detectable
 35 tumor mass. Each dot represents one donor and was calculated by background subtraction. Mann-
 36 Whitney test was performed to calculate significance with *p<0.05, **p<0.01 and ns not significant.

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38 **Table S1 List of administered drugs in each patient group**

	All patients (n = 237)
Antibody	
Atezolizumab	3 (7%)
Bevacizumab	9 (23%)
Brentuximabvedotin	2 (5%)
Cetuximab	2 (5%)
Caratumumab	2 (5%)
Cenosumab	4 (10%)
Obinutuzumab	2 (5%)
Ofatumumab	1 (2%)
Panitumumab	1 (2%)
Pembrolizumab	2 (5%)
Pertuzumab	7 (18%)
Ramucirumab	1 (2%)
Rituximab	8 (21%)
Trastuzumab	7 (18%)
Anti CD20	
Obinutuzumab	2 (22%)
Ofatumumab	1 (11%)
Rituximab	8 (88%)
Immune checkpoint inhibitors	
Atezolizumab	3 (60%)
Pembrolizumab	2 (40%)
Cytostatics	
Bortezomib	3 (4%)
Brentuximabvedotin	1 (1%)
Capecitabin	3 (4%)
Carboplatin	13 (18%)
Cisplatin	3 (4%)
Cyclophosphamid	28 (40%)
Docetaxel	3 (4%)
Doxorubicin	12 (17%)
Epirubicin	16 (22%)
Etoposid	2 (2%)
Fludarabin	1 (1%)
Fluorouracil	10 (14%)

Gemcitabin	5 (7%)
Irinotecan	7 (10%)
Oxaliplatin	10 (14%)
Paclitaxel	17 (24%)
Procarbazin	1 (1%)
Temozolomid	3 (4%)
Vinorelbin	2 (2%)
Tyrosine kinase inhibitors	
Axitinib	1 (5%)
Dasatinib	2 (11%)
Ibrutinib	7 (41%)
Imatinib	2 (11%)
Lapatinib	1 (5%)
Lenvatinib	1 (5%)
Nilotinib	2 (11%)
Pazopanib	2 (11%)
Ponatinib	1 (5%)
Regorafenib	1 (5%)
Ruxolitinib	2 (11%)
Sunitinib	1 (5%)