

Table S3. HCW and cancer patient characteristics according to immune responsiveness.

Table S3a. HCW and cancer patient characteristics in each cellular responses cluster 0 versus 1.

Cohort	WELCOME					MIND-DC					UCPVax				
Characteristics	Overall n=75	Cluster 0 n=19	Cluster 1 n=56	p	q	Overall n=55	Cluster 0 n=12	Cluster 1 n=43	p	q	Overall n=26	Cluster 0 n=13	Cluster 1 n=13	p	q
Age (years), median [range]	42 [26-75]	39 [29-65]	45 [26-75]	0.779	0.779	56 [23 - 81]	57 [23 - 81]	56 [29 - 79]	0.775	>0.999	69 [56-82]	67 [56-77]	70 [59-82]	0.303	0.531
Sex - n (%)															
Female	57 (76)	16 (84)	41 (73)	0.535	0.779	24 (44)	5 (42)	19 (44)	0.876	>0.999	7 (27)	3 (23)	4 (31)	>0.999	>0.999
Male	18 (24)	3 (16)	15 (27)			31 (56)	7 (58)	24 (56)			19 (73)	10 (77)	9 (69)		
Time from 2nd vaccine round to sampling (days), median [range]	42 [19 - 84]	41 [19 - 67]	42 [23 - 84]	0.185	0.779										
BMI - n (%)															
<25	-	-	-	-	-	21 (38)	7 (58)	14 (33)	0.177	0.887	14 (54)	5 (38)	9 (69)	0.116	0.270
≥25	-	-	-	-	-	34 (62)	5 (42)	29 (67)			12 (46)	8 (62)	4 (31)		
ECOG performance status - n (%)															
0	-	-	-	-	-	52 (95)	12 (100)	40 (93)	>0.999	>0.999	9 (35)	2 (15)	7 (54)	0.097	0.270
1	-	-	-	-	-	3 (5.5)	0 (0)	3 (7.0)			17 (65)	11 (85)	6 (46)		
Stage - n (%)															
IIIB	-	-	-	-	-	35 (64)	9 (75)	26 (60)	0.502	>0.999	0 (0)	0 (0)	0 (0)	-	-
IIIC	-	-	-	-	-	20 (36)	3 (25)	17 (40)			0 (0)	0 (0)	0 (0)	-	-
IV	-	-	-	-	-	0 (0)	0 (0)	0 (0)			26 (100)	13 (100)	13 (100)	-	-
Histology - n (%)															
Cutaneous melanoma	-	-	-	-	-	55 (100)	12 (100)	43 (100)	-	-	-	-	-	-	-
Adenocarcinoma	-	-	-	-	-	-	-	-	-	-	12 (46)	4 (31)	8 (62)	0.011	0.074
Squamous cell carcinoma	-	-	-	-	-	-	-	-	-	-	11 (42)	9 (69)	2 (15)		
Other NSCLC	-	-	-	-	-	-	-	-	-	-	3 (12)	0 (0)	3 (23)		

Previous lines - n (%)															
none	-	-	-	-	-	55 (100)	12 (100)	43 (100)	-	-	0 (0)	0 (0)	0 (0)		
3	-	-	-	-	-	0 (0)	0 (0)	0 (0)	-	-	11 (42)	6 (46)	5 (38)	0.691	0.807
4 to 6	-	-	-	-	-	0 (0)	0 (0)	0 (0)	-	-	15 (58)	7 (54)	8 (62)		
PD-L1 - n (%)															
<50%	-	-	-	-	-	-	-	-	-	-	2 (7.7)	2 (15)	0 (0)		
≥50%	-	-	-	-	-	-	-	-	-	-	7 (27)	2 (15)	5 (38)	0.425	0.594
Negative	-	-	-	-	-	-	-	-	-	-	8 (31)	4 (31)	4 (31)		
Not done	-	-	-	-	-	-	-	-	-	-	9 (35)	5 (38)	4 (31)		
Comedications - n (%)															
Antibiotics (Welcome : n=69)															
Yes	26 (38)	4 (21)	22 (44)			1 (2)	0 (0)	1 (2)			0 (0)	0 (0)	0 (0)		
prevacination															
Yes	-	-	-	0.100		-	-	-	1		6 (23)	5 (38)	1 (8)	0.1626	
postvaccination															
No	43 (62)	15 (79)	28 (66)			54 (98)	12 (100)	42 (98)			20 (77)	8 (62)	12 (92)		
Proton-pump inhibitors (Welcome : n=69)															
Yes	5 (7)	1 (5)	4 (8)			4 (7)	0 (0)	4 (9)			5 (19)	4 (31)	1 (8)		
prevacination															
Yes	-	-	-	1		-	-	-	0.566		4 (16)	3 (23)	1 (8)	0.1182	
postvaccination															
No	64 (93)	18 (95)	46 (92)			51 (93)	12 (100)	39 (91)			17 (65)	6 (46)	11 (84)		
Time from previous ICB therapy and vaccination (days), median [range]	-	-	-	-	-	-	-	-	-	-	6.6 (1-35)	6.7 (1-26)	4.4 (1-35)	0.752	

Wilcoxon rank sum test; Fisher's exact test

False discovery rate correction for multiple testing

Wilcoxon rank sum test; Pearson's Chi-squared test; Fisher's exact test

Wilcoxon rank sum test; Fisher's exact test; Pearson's Chi-squared test

Table S3b. HCW characteristics in each humoral responses cluster Low versus High in the WELCOME cohort.

Cohort	WELCOME			
Characteristics	Overall. n=75	Low. n=38	High. n=37	p-value
Age (years) , median [range]	42 [26 - 75]	46 [29 - 75]	37 [26 - 65]	0.0282
Sex - n (%)				
Female	57 (76)	30 (79)	27 (73)	0.597
Male	18 (24)	8 (21)	10 (27)	
Comedications - n (%)				
Antibiotics (n=69)				
Yes	26 (38)	14 (40)	12 (35)	0.8049
No	43 (62)	21 (60)	22 (65)	
Proton-pump inhibitors (n=69)				
Yes	5 (7)	3 (9)	2 (6)	1
No	64 (93)	32 (91)	32 (94)	

Wilcoxon rank sum test; Fisher's exact test