

**Table S1 P-values and estimated difference (95% CI) of median IFN-induced fold changes in pSTAT1 in lymphocyte populations from cancer patients versus healthy controls.**

<b>A. Breast Cancer Patients</b>									
	Cell Types	IFN- $\alpha$				IFN- $\gamma$			
		p-value	Estimated Difference (95% CI)	Sample Size		p-value	Estimated Difference (95% CI)	Sample Size	
				H	BC			H	BC
All BC Patients	T	0.000772	2.787 (1.123 to 4.620)	25	27	0.455947	0.075 (-0.147 to 0.281)	25	27
	B	0.000115	2.596 (1.344 to 4.177)	25	27	0.000121	1.761 (0.885 to 2.512)	26	27
	NK	0.000399	1.858 (0.844 to 2.816)	27	27	0.319166	-0.050 (-0.179 to 0.063)	28	27
Stage II BC Patients	T	0.004471	3.252 (1.059 to 5.580)	25	10	0.460433	0.110 (-0.208 to 0.411)	25	10
	B	0.000767	3.036 (1.484 to 5.149)	25	10	0.002857	1.859 (0.685 to 2.879)	26	10
	NK	0.078016	1.312 (-0.162 to 2.549)	27	10	0.857680	-0.016 (-0.244 to 0.172)	28	10
Stage III BC Patients	T	0.033268	2.000 (0.090 to 4.025)	25	9	0.591028	0.074 (-0.211 to 0.366)	25	9
	B	0.026899	2.078 (0.227 to 4.353)	25	9	0.010185	1.821 (0.502 to 2.690)	26	9
	NK	0.011074	2.034 (0.554 to 3.376)	27	9	0.542137	-0.047 (-0.212 to 0.141)	28	9
Stage IV BC Patients	T	0.039852	2.712 (0.026 to 5.823)	25	8	0.820894	0.021 (-0.556 to 0.424)	25	8
	B	0.011799	2.831 (0.555 to 4.984)	25	8	0.013492	1.637 (0.236 to 2.923)	26	8
	NK	0.001084	2.504 (0.964 to 3.904)	27	8	0.180381	-0.108 (-0.372 to 0.069)	28	8
BC No Therapy	T	0.000688	2.950 (1.147 to 4.925)	25	15	0.955993	-0.008 (-0.312 to 0.256)	25	15
	B	0.000373	2.735 (1.329 to 4.601)	25	15	0.002326	1.685 (0.706 to 2.525)	26	15
	NK	0.003390	1.762 (0.581 to 2.694)	27	15	0.677628	-0.026 (-0.170 to 0.138)	28	15
BC Chemo-therapy	T	0.044897	2.539 (0.006 to 5.100)	25	12	0.160278	0.188 (-0.101 to 0.447)	25	12
	B	0.007640	2.513 (0.582 to 4.504)	25	12	0.001312	1.829 (0.650 to 2.926)	26	12
	NK	0.005267	2.057 (0.574 to 3.324)	27	12	0.212913	-0.095 (-0.279 to 0.061)	28	12

  

<b>B. Melanoma Patients</b>									
Cell Types	IFN- $\alpha$				IFN- $\gamma$				
	p-value	Estimated Difference (95% CI)	Sample Size		p-value	Estimated Difference (95% CI)	Sample Size		
			H	M			H	M	
T (total)	0.004203	3.936 (1.791 to 6.727)	21	11	0.440879	0.078 (-0.182 to 0.344)	21	10	
Naïve T	0.064177	3.478 (-0.130 to 6.197)	18	10	0.595851	0.094 (-0.259 to 0.486)	18	9	
Effector T	0.018056	1.651 (0.436 to 3.249)	18	10	0.705056	0.058 (-0.201 to 0.277)	18	9	
Memory T	0.031068	4.103 (0.624 to 6.997)	18	10	0.403310	0.068 (-0.116 to 0.235)	18	9	
B	0.044075	2.765 (0.240 to 5.213)	21	12	0.005695	1.944 (0.646 to 3.256)	21	11	
NK	0.132773	1.883 (-0.259 to 3.405)	23	11	0.450763	-0.069 (-0.287 to 0.109)	24	11	

  

<b>C. Gastrointestinal Cancer Patients*</b>									
Cell Types	IFN- $\alpha$				IFN- $\gamma$				
	p-value	Estimated Difference (95% CI)	Sample Size		p-value	Estimated Difference (95% CI)	Sample Size		
			H	GI			H	GI	
T	0.002698	3.595 (1.217 to 6.299)	16	11	0.174990	0.218 (-0.150 to 0.499)	16	7	
B	0.000034	3.957 (1.903 to 5.930)	17	11	0.001895	2.701 (0.542 to 3.438)	17	7	
NK	0.121916	1.431 (-0.346 to 3.240)	17	11	0.356684	0.110 (-0.075 to 0.351)	18	7	

\*The mean age of the gastrointestinal cancer patients was higher than that of the total group of healthy controls and the breast cancer and melanoma patients. Therefore, the gastrointestinal cancer patients were compared to an age-matched subgroup of the healthy controls.