

# Associations between socioeconomic status and bispecific LV20.19 CAR T-cell therapy outcomes

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## Supplementary Tables and Figures

**Supplementary Table 1. Peak cytokines**

	Low SES Median	High SES Median	Fold Change Ratio	CI	p-value	SES p-value adjusted for LDH
<b>BCA-1</b>	16.78	9.87	6.9	0.9-3.23	0.0941	0.382
<b>Fractalkine</b>	13.33	10.59	2.7	0.57-2.78	0.5476	0.937
<b>G-CSF</b>	14.15	6.36	7.8	1.05-4.73	0.0389	0.245
<b>I-309</b>	8.00	4.62	3.4	1.06-2.82	0.0312	0.208
<b>IFNg</b>	12.18	6.62	5.6	0.69-4.95	0.2046	0.533
<b>IL-6</b>	10.59	5.26	5.3	0.88-4.61	0.0883	0.283
<b>IL-8</b>	9.39	5.26	4.1	1.09-2.94	0.0254	0.152
<b>IP-10</b>	38.09	22.65	15.4	1.12-2.57	0.0198	0.0247
<b>MCP-2</b>	9.97	6.55	3.4	1.03-2.27	0.0391	0.119
<b>TNFa</b>	14.30	7.54	6.8	1.18-3.06	0.0118	0.1218

SE, standard error; SES, socioeconomic status; LDH, baseline lactate dehydrogenase; BCA-1, B-lymphocyte chemoattractant 1; G-CSF, granulocyte colony stimulating factor; IFNg, interferon gamma; IL-6, interleukin 6; IL-8, interleukin 8; IP-10, interferon gamma-induced protein 10; MCP-2, monocyte chemoattractant protein 2; TNFa, tumor necrosis factor alpha. Cytokine mean differences and standard error reported as raw values and t-test was derived using log-transformed values.

**Supplementary Table 2. Kynurenine metabolites**

	Baseline			D14			D28			D90		
	Ratio* (CI)	p.value	p.value w/LDH**	Ratio* (CI)	p.value	p.value w/LDH**	Ratio* (CI)	p.value	p.value w/LDH**	Ratio* (CI)	p.value	p.value w/LDH**
<b>TRP</b>	0.869 (0.9-1.47)	0.25	0.261	0.882 (0.87-1.47)	0.332	0.3411	1 (0.78-1.29)	0.999	0.937	0.920 (0.84-1.41)	0.523	0.505
<b>KYN</b>	1.208 (0.64-1.07)	0.145	0.229	1.119 (0.68-1.18)	0.414	0.554	1.117 (0.69-1.17)	0.408	0.523	1.093 (0.69-1.20)	0.514	0.612
<b>KA</b>	0.902 (0.75-1.65)	0.602	0.398	1.027 (0.64-1.48)	0.898	0.776	1.079 (0.62-1.40)	0.711	0.974	0.867 (0.76-1.75)	0.496	0.337
<b>3-HK</b>	1.36 (0.43-1.25)	0.24	0.643	1.324 (0.44-1.30)	0.296	0.745	1.418 (0.41-1.21)	0.193	0.56	1.029 (0.56-1.68)	0.913	0.622
<b>3-HAA</b>	1.766 (0.25-1.28)	0.164	0.438	2.002 (0.21-1.16)	0.103	0.332	2.442 (0.18-0.94)	0.037	0.152	1.486 (0.29-1.57)	0.345	0.688
<b>QA</b>	2.081 (0.30-0.76)	0.004	0.012	2.509 (0.23-0.70)	0.004	0.021	1.939 (0.30-0.88)	0.018	0.052	1.597 (0.33-1.18)	0.135	0.148

TRP, Tryptophan; KYN, Kynurenine; KA, Kynurenic acid; 3-HK, 3-Hydroxylkynurenine; 3-HAA, 3-Hydroxyanthranilate; QA, Quinolinic acid; SES, Socioeconomic Status; LDH, Lactate Dehydrogenase.

Kynurenine metabolites were analyzed using linear mixed effects model and estimated marginal means (least-square means) was done to compare kynurenine metabolites between income groups at each timepoint.

\*Ratios are estimated as low SES/high SES

\*\*Linear mixed effect models with estimated means were used to compare groups and a separate analysis was done using LDH as an adjustment to examine potential influence.

**Supplementary Table 3. Patient reported outcomes**

	Baseline				D14				D28				D90			
	Low SES (SE)	High SES (SE)	p.value	p.value w/LDH	Low SES (SE)	High SES (SE)	p.value	p.value w/LDH	Low SES (SE)	High SES (SE)	p.value	p.value w/LDH	Low SES (SE)	High SES (SE)	p.value	p.value w/LDH
<b>Depression</b>	37.4 (3.73)	36.6 (3.99)	0.884	0.784	32.0 (5.7)	41.1 (3.99)	0.199	0.327	40.0 (3.95)	36.2 (4.25)	0.526	0.489	32.3 (4.54)	30.4 (4.25)	0.77	0.71
<b>Anxiety</b>	16.6 (2.08)	16.1 (2.23)	0.876	0.688	17.2 (2.86)	17.4 (2.23)	0.953	0.83	18.7 (2.17)	19.7 (2.32)	0.759	0.979	17.7 (2.39)	16 (2.32)	0.611	0.979
<b>PSQI</b>	6.25 (1.19)	3.71 (1.28)	0.156	0.121	5.60 (1.9)	3.90 (1.38)	0.472	0.346	6.11 (1.27)	4.43 (1.5)	0.398	0.308	7.11 (1.49)	3.03 (1.5)	0.061	0.05
<b>FSII</b>	3.91 (0.675)	2.68 (0.721)	0.224	0.177	2.72 (1.01)	4.07 (0.721)	0.285	0.502	3.44 (0.711)	3.08 (0.765)	0.73	0.571	3.45 (0.813)	2.66 (0.765)	0.487	0.387
<b>FSIF</b>	2.43 (0.705)	1.63 (0.754)	0.446	0.384	1.28 (1.126)	2.67 (0.754)	0.311	0.483	3.12 (0.751)	1.4 (0.811)	0.128	0.122	1.55 (0.88)	1.06 (0.811)	0.685	0.611
<b>FSID</b>	7.75 (1.72)	7 (1.84)	0.768	0.845	3.49 (2.57)	10.71 (1.84)	0.028	0.046	9.27 (1.81)	7.99 (1.95)	0.632	0.712	7.34 (2.07)	7.34 (2.07)	0.82	0.792
<b>BPII</b>	3.19 (0.717)	1.64 (0.766)	0.154	0.029	1.30 (1.01)	2.10 (0.766)	0.536	0.804	2.96 (0.748)	1.04 (0.804)	0.098	0.018	3.69 (0.837)	0.876 (0.804)	0.021	0.004
<b>BPIF</b>	3.29 (0.824)	1.08 (0.881)	0.0802	0.0384	1.61 (1.17)	1.12 (0.881)	0.742	0.402	2.75 (0.862)	0.779 (0.926)	0.131	0.063	1.86 (0.966)	0.3 (0.926)	0.253	0.132

SES, Socioeconomic Status; SE, Standard Error; PSQI, Pittsburgh Sleep Quality Index; FSII, Fatigue Symptom Index Intensity; FSIF, Fatigue Symptom Index Frequency; FSID, Fatigue Symptom Index Duration; BPII, Brief Pain Index Intensity; BPIF, Brief Pain Index Frequency.