

## Supplemental Tables

**Table S1. Subject Clinical and Demographical Characteristics**

	HAND (n=28)	Normal Cognition (n=33)	p-value
Gender, n (%) Female	17 (60)	18 (54)	0.627
Age, mean (SD) years	34.0 (7.4)	35.3 (6.5)	0.373
CD4 T-lymphocyte Count, median	255	213	0.238
Plasma Viral Load, median log <sub>10</sub> (IQR)	4.96 (4.65, 5.59)	4.77 (3.95, 5.13)	0.081

**Table S2. Comparing NC and HAND groups at entry by Wilcoxon two-sample test**

Cytokine	Z score	p-value
Fractalkine	-0.2641	0.7917
IL-6	-0.8488	0.396
IL-8	3.0685	0.0022
IL-10	0.3049	0.7604
IP-10	0.4865	0.6266
MCP-1	6.0654	<.0001
TNF- $\alpha$	-1.0219	0.3068

**Table S3. Comparisons between HAND, NC, and HAND that became NC after one year of cART\***

Cytokine	Chi-square	df	p-value **
Fractalkine	1.0669	2	0.5866
IL-6	1.0854	2	0.5812
IL-8	17.1719	2	0.0002
IL-10	1.087	2	0.5807
IP-10	3.429	2	0.1801
MCP-1	15.1574	2	0.0005
TNF- $\alpha$	2.2595	2	0.3231

\* HAND (n=8) vs. NC (n=25) vs. HAND -> NC (n=16)

\*\* Kruskal-Wallis Test

**Table S4. Spearman correlations between supernatant cytokine levels and their plasma or CSF levels**

Cytokine	Supernatant vs. Plasma	Supernatant vs. CSF
Entry		
IL-8	r = 0.039, p = 0.775, n = 55	r = - 0.226, p = 0.178, n = 37
MCP-1	r = 0.115, p = 0.402, n = 55	r = - 0.005, p = 0.976, n = 37
TNF- $\alpha$	r = 0.008, p = 0.953, n = 55	r = 0.048, p = 0.777, n = 37
After 1 yr treatment		
IL-8	r = 0.210, p = 0.249, n = 32	r = - 0.400, p = 0.505, n = 5
MCP-1	r = - 0.070, p = 0.704, n = 32	r = 0.100, p = 0.873, n = 5
TNF- $\alpha$	r = 0.006, p = 0.972, n = 32	r = 0.158, p = 0.800, n = 5
Delta (Entry - yr 1)		
IL-8	r = 0.102, p = 0.606, n = 28	r = - 0.4, p = 0.6, n = 4
MCP-1	r = 0.096, p = 0.618, n = 28	r = 0.2, p = 0.8, n = 4
TNF- $\alpha$	r = - 0.137, p = 0.486, n = 28	r = 0.2, p = 0.8, n = 4

**Table S5. Spearman correlations between cytokine and CD14+ enriched HIVDNA**

Cytokine	Correlation with CD14 HIV NDA		
	Entry	1 year	Delta (entry - 1 year)
Fractalkine	r = - 0.129, p=0.344, n=56	r = - 0.077, p=0.600, n=49	r = - 0.026, p=0.868, n=44
IL-6	r = - 0.243, p=0.071, n=56	r = - 0.025, p=0.863, n=49	r = - 0.028, p=0.856, n=44
IL-8	r=0.332 , p=0.012, n=56	r = - 0.178, p=0.221, n=49	r = - 0.167, p=0.280, n=44
IL-10	r = - 0.118, p=0.385, n=56	r = - 0.073, p=0.620, n=49	r=0.093, p=0.549, n=44
IP-10	r = - 0.128, p=0.346, n=56	r = - 0.347, p=0.015, n=49	r = - 0.262, p=0.085, n=44
MCP-1	r=0.388, p=0.003, n=56	r = - 0.046, p=0.752, n=49	r=0.077, p=0.620, n=44
TNF- $\alpha$	r = - 0.322 , p=0.016, n=56	r = - 0.050, p=0.735, n=49	r=0.010, p=0.948, n=44
CSF IL-8	r=0.038, p=0.810, n=42	r = - 0.928, p=0.008, n=6	r=0.029, p=0.957, n=6
CSF MCP-1	r = - 0.020, p=0.900, n=42	r = - 0.464, p=0.354, n=6	r=0.429, p=0.397, n=6
CSF TNF- $\alpha$	r=0.128, p=0.418, n=42	r = - 0.403, p=0.428, n=6	r=0.200, p=0.704, n=6
Plasma IL-8	r = - 0.046, p=0.725, n=60	r=0.042, p=0.803, n=37	r=0.183, p=0.280, n=37
Plasma MCP-1	r = - 0.052, p=0.691, n=60	r = - 0.241, p=0.150, n=37	r = - 0.001, p=0.995, n=37
Plasma TNF- $\alpha$	r=0.106, p=0.42, n=60	r=0.080, p=0.640, n=37	r=0.035, p=0.838, n=37