Table S1. MSC's matrix chemokine responses to IFNγ

	IFNγ (ng/ml)				
	0	**0.4**	**4**	**40**	**Cumulative**
CCL8	1.0	2.2±2.0	31.8±43.6	93.3±93.3	127.2
CCL7	1.0	1.3±0.2	4.5±2.1	110.3±230.8	116.1
CXCL11	1.0	1.0±0.4	14.2±13.2	81.8±91.2	97.0
CXCL10	1.0	1.2±0.4	8.9±7.1	52.7±30.1	62.9
CCL20	1.0	1.2±0.8	3.4±4.7	4.6±6.2	9.1
CXCL9	1.0	0.9±0.8	1.9±1.6	5.6±7.3	8.4
CXCL16	1.0	1.4±0.3	1.8±0.4	2.0±0.4	5.1
CCL11	1.0	1.3±0.9	1.6±1.2	2.3±2.1	5.1
CCL21	1.0	1.1±0.3	1.4±0.4	1.9±0.6	4.4
CCL15	1.0	1.0±0.1	1.6±1.2	1.6±1.2	4.1
CX3CL1	1.0	1.2±0.4	1.3±0.6	1.6±0.8	4.1
CCL13	1.0	1.0±0.1	1.2±0.1	1.7±0.5	3.9
CCL23	1.0	1.1±0.6	1.4±1.0	1.3±0.6	3.8
CCL19	1.0	1.2±0.6	1.5±2.2	0.8±0.7	3.6
CXCL14	1.0	1.1±0.6	1.0±0.4	1.5±0.6	3.5
CCL25	1.0	1.1±0.3	1.0±0.1	1.3±0.7	3.5
CCL28	1.0	1.0±0.1	1.0±0.1	1.3±0.5	3.4
CCL4	2.0	1.0±0.1	1.0±0.0	1.2±0.1	4.4
CCL26	1.0	1.0±0.3	1.1±0.3	1.1±0.3	3.2
CCL18	1.0	1.0±0.2	1.0±0.2	1.1±0.4	3.2
CXCL7	1.0	1.0±0.1	1.0±0.1	1.0±0.1	3.1
CCL22	1.0	1.0±0.2	1.0±0.2	1.1±0.2	3.0
CCL24	1.0	1.0±0.0	1.0±0.1	1.0±0.1	3.0
CCL17	1.0	1.0±0.1	1.0±0.1	1.1±0.2	3.0
CCL27	1.0	1.0±0.1	1.0±0.0	1.0±0.1	2.9
CCL14	1.0	1.0±0.1	0.9±0.0	0.9±0.1	2.8
CXCL2	1.0	1.0±0.1	0.9±0.0	0.9±0.1	2.8
CCL1	1.0	1.0±0.4	0.8±0.3	1.0±0.4	2.7
CCL5	1.0	0.9±0.1	0.9±0.1	0.9±0.1	2.7
CXCL6	1.0	0.9±0.1	0.8±0.1	0.8±0.1	2.4
CXCL1	1.0	0.9±0.1	0.8±0.2	0.7±0.2	2.4

Fold change in chemokine secretion over the 0 upon stimulation with the indicated concentrations of IFNγ is shown. Cumulative fold change is calculated by the summation of fold changes observed in 0.4, 4, 40 ng/ml stimulation conditions.

Table S2. MSC's matrix chemokine responses to TNFα

	TNFα (ng/ml)				
	0	**0.4**	**4**	**40**	**Cumulative**
CXCL1	1.0	2.2±1.1	6.0±2.4	12.4±3.5	20.5
CCL20	1.0	2.3±1.7	4.7±3.6	9.6±7.8	16.6
CXCL6	1.0	1.8±1.0	4.2±2.9	8.0±5.8	14.0
CCL7	1.0	1.9±1.2	2.9±1.4	4.0±1.6	8.8
CXCL10	1.0	1.1±0.2	1.4±0.7	4.1±3.3	6.6
CXCL14	1.0	1.3±0.5	2.0±0.9	3.1±1.6	6.4
CXCL9	1.0	1.8±1.1	1.6±1.4	1.9±1.4	5.3
CCL19	1.0	2.4±2.8	0.9±0.3	1.6±2.1	4.9
CCL8	1.0	1.1±0.3	1.5±0.5	1.9±1.0	4.5
CXCL11	1.0	1.1±0.6	1.2±0.6	2.2±2.2	4.4
CCL11	1.0	1.3±0.6	1.3±0.9	1.7±0.7	4.3
CX3CL1	1.0	1.4±0.8	1.2±0.4	1.7±0.9	4.2
CCL25	1.0	1.0±0.1	1.2±0.7	1.5±0.9	3.7
CCL1	1.0	1.0±0.6	1.1±0.6	1.5±0.4	3.6
CCL5	1.0	1.1±0.2	1.1±0.3	1.3±0.5	3.6
CCL15	1.0	1.2±1.0	1.0±0.1	1.3±0.9	3.4
CCL23	1.0	1.1±0.3	1.1±0.3	1.1±0.2	3.3
CXCL2	1.0	1.0±0.2	1.1±0.2	1.2±0.2	3.3
CXCL16	1.0	1.0±0.1	1.0±0.0	1.1±0.1	3.2
CCL4	2.0	1.0±0.1	1.1±0.1	1.1±0.1	3.2
CCL21	1.0	1.0±0.1	1.0±0.2	1.1±0.1	3.1
CCL24	1.0	1.0±0.0	1.0±0.1	1.0±0.1	3.0
CXCL7	1.0	1.0±0.0	1.0±0.1	1.0±0.1	3.0
CCL26	1.0	1.0±0.4	1.0±0.4	1.0±0.4	3.0
CCL13	1.0	1.0±0.1	1.0±0.1	1.0±0.1	3.0
CCL22	1.0	1.0±0.2	0.9±0.2	1.0±0.2	3.0
CCL17	1.0	1.0±0.2	1.0±0.2	1.0±0.2	2.9
CCL14	1.0	1.0±0.1	1.0±0.1	1.0±0.1	2.9
CCL18	1.0	1.0±0.2	0.9±0.1	1.0±0.2	2.9
CCL28	1.0	0.9±0.4	0.9±0.2	1.0±0.1	2.9
CCL27	1.0	1.0±0.1	0.9±0.0	0.9±0.1	2.8

Fold change in chemokine secretion over 0 upon stimulation with the indicated concentrations of TNFα is shown. Cumulative fold change is calculated by the summation of fold changes observed in 0.4, 4, 40 ng/ml stimulation conditions.

Table S3. MSC's matrix chemokine responses to IFNγ + TNFα

	IFNγ + TNFα (ng/ml)				
	0	**0.4**	**4**	**40**	**Cumulative**
CCL7	1.0	2.8±0.6	137.1±280.2	413.2±620.9	553.0
CXCL11	1.0	2.9±2.1	136.4±89.1	369.7±174.9	509.1
CCL8	1.0	4.8±4.3	102.4±81.1	167.8±106.8	275.0
CXCL10	1.0	11.2±8.2	38.0±18.9	38.2±18.3	87.4
CXCL9	1.0	1.4±0.6	18.5±20.6	66.5±50.7	86.3
CCL20	1.0	2.9±1.8	9.6±6.5	28.0±18.3	40.5
CXCL1	1.0	2.1±1.1	4.2±2.1	7.1±2.7	13.3
CX3CL1	1.0	1.5±1.3	2.1±1.1	3.4±3.1	7.0
CXCL16	1.0	1.5±0.2	2.2±0.5	2.9±1.1	6.6
CCL21	1.0	1.4±0.3	2.4±0.7	2.6±0.8	6.4
CXCL14	1.0	1.2±0.3	1.9±0.6	2.5±1.1	5.6
CXCL6	1.0	1.5±0.8	2.0±1.3	1.8±0.9	5.3
CCL11	1.0	1.1±0.4	1.7±0.6	2.1±0.5	4.9
CCL13	1.0	1.0±0.1	1.5±0.3	2.2±0.8	4.7
CCL19	1.0	1.5±2.2	1.5±2.2	1.7±2.1	4.7
CCL1	1.0	1.0±0.4	1.3±0.3	2.2±1.3	4.4
CCL5	1.0	1.2±0.4	1.4±0.5	1.8±1.4	4.4
CCL22	1.0	1.2±0.4	1.5±0.7	1.5±0.8	4.2
CCL25	1.0	1.2±0.7	1.0±0.0	1.9±1.4	4.1
CCL17	1.0	1.2±0.3	1.2±0.4	1.3±0.5	3.7
CCL4	1.0	1.0±0.1	1.1±0.2	1.2±0.2	3.4
CCL28	1.0	1.0±0.1	1.2±0.5	1.2±0.3	3.3
CXCL2	1.0	1.0±0.0	1.1±0.1	1.2±0.1	3.3
CCL24	1.0	1.0±0.0	1.1±0.1	1.2±0.2	3.3
CCL23	1.0	1.0±0.2	1.0±0.3	1.2±0.4	3.1
CXCL7	1.0	1.0±0.1	1.0±0.1	1.0±0.1	3.1
CCL26	1.0	1.0±0.3	1.0±0.6	1.1±0.4	3.1
CCL18	1.0	1.0±0.1	1.0±0.1	1.0±0.2	3.0
CCL15	1.0	0.9±0.3	0.8±0.3	1.1±0.8	2.9
CCL27	1.0	1.0±0.1	1.0±0.1	0.9±0.1	2.9
CCL14	1.0	1.0±0.1	0.9±0.1	0.9±0.1	2.8

Fold change in chemokine secretion over 0 upon stimulation with the indicated concentrations of IFNγ+TNFα is shown. Cumulative fold change is calculated by the summation of fold changes observed in 0.4, 4, 40 ng/ml stimulation conditions.

Table S4. MSC's matrix chemokine responses to IL-10

	IL-10 (ng/ml)				
	0	**0.4**	**4**	**40**	**Cumulative**
CXCL11	1.0	1.5±0.2	1.4±0.3	2.5±2.1	5.4
CCL11	1.0	1.1±0.4	1.6±0.3	2.2±1.7	4.9
CXCL9	1.0	1.4±1.3	2.2±1.0	0.8±0.4	4.4
CCL5	1.0	1.2±0.6	1.6±0.6	1.3±0.7	4.1
CCL8	1.0	1.1±0.4	1.5±0.5	1.3±0.7	4.0
CCL23	1.0	1.7±2.0	1.0±0.6	1.1±0.4	3.8
CCL17	1.0	1.2±0.1	1.1±0.3	1.4±0.4	3.6
CXCL14	1.0	0.8±0.3	1.4±0.8	1.3±0.5	3.6
CX3CL1	1.0	0.7±0.2	1.7±1.1	1.2±0.5	3.5
CCL3	1.0	1.1±0.2	1.4±0.3	1.1±0.1	3.5
CCL13	1.0	1.1±0.1	1.2±0.0	1.2±0.0	3.5
CCL22	1.0	1.2±0.3	0.9±0.2	1.3±0.6	3.5
CCL1	1.0	0.8±0.3	1.4±0.7	1.2±0.9	3.4
CCL27	1.0	1.1±0.1	1.1±0.1	1.2±0.1	3.4
CCL24	1.0	1.1±0.1	1.1±0.0	1.1±0.0	3.3
CCL7	1.0	1.1±0.1	1.2±0.2	1.0±0.1	3.3
CCL26	1.0	1.2±0.5	0.9±0.3	1.2±0.4	3.3
CXCL10	1.0	1.1±0.1	1.1±0.1	1.1±0.0	3.3
CXCL2	1.0	1.0±0.0	1.1±0.0	1.1±0.0	3.2
CXCL1	1.0	1.1±0.1	1.1±0.2	1.0±0.1	3.2
CXCL6	1.0	1.0±0.1	1.1±0.0	1.0±0.1	3.2
CCL14	1.0	1.0±0.1	1.1±0.1	1.0±0.1	3.1
CCL18	1.0	1.0±0.1	1.0±0.1	1.1±0.0	3.1
CCL20	1.0	0.9±0.2	0.9±0.3	1.3±0.9	3.1
CXCL7	1.0	1.0±0.0	1.0±0.0	1.0±0.1	3.0
CCL28	1.0	1.0±0.0	1.0±0.0	1.0±0.1	3.0
CCL15	1.0	1.0±0.0	1.0±0.0	1.0±0.0	3.0
CXCL16	1.0	1.0±0.0	1.0±0.0	1.0±0.0	2.9
CCL21	1.0	1.0±0.2	1.1±0.4	0.9±0.2	2.9
CCL25	1.0	0.5±0.4	0.8±0.4	0.8±0.3	2.1
CCL19	1.0	0.4±0.5	1.2±1.9	0.4±0.5	2.1

Fold change in chemokine secretion over 0 upon stimulation with the indicated concentrations of IL-10 is shown. Cumulative fold change is calculated by the summation of fold changes observed in 0.4, 4, 40 ng/ml stimulation conditions. n=3 donors

Table S5. MSC's matrix chemokine responses to TGFβ

	TGFβ (ng/ml)				
	0	**0.4**	**4**	**40**	**Cumulative**
CCL7	1.0	2.9±0.7	3.1±0.6	2.9±0.2	8.9
CXCL6	1.0	2.5±2.6	2.4±2.6	2.5±2.6	7.4
CCL28	1.0	1.6±0.5	1.6±0.5	1.5±0.5	4.8
CX3CL1	1.0	1.3±0.5	1.8±1.1	1.4±0.3	4.5
CCL19	1.0	1.2±1.9	2.5±4.1	0.4±0.5	4.2
CXCL11	1.0	1.6±1.4	1.6±1.4	0.8±0.2	3.9
CCL26	1.0	1.2±0.8	1.6±1.0	1.2±0.5	3.9
CCL22	1.0	1.0±0.3	1.0±0.4	1.8±0.3	3.8
CCL23	1.0	1.6±1.0	0.8±0.3	1.1±0.4	3.5
CCL8	1.0	1.0±0.2	1.1±0.1	1.4±1.0	3.5
CCL27	1.0	1.1±0.0	1.1±0.1	1.3±0.0	3.5
CCL1	1.0	1.8±0.7	0.8±0.3	0.8±0.3	3.4
CXCL14	1.0	0.9±0.5	1.2±0.3	1.3±1.4	3.4
CXCL16	1.0	1.0±0.1	1.1±0.1	1.2±0.1	3.3
CCL18	1.0	1.1±0.1	1.1±0.1	1.1±0.1	3.3
CCL17	1.0	1.2±0.7	1.1±0.2	1.0±0.2	3.3
CCL13	1.0	1.1±0.1	1.1±0.1	1.1±0.0	3.2
CXCL10	1.0	1.1±0.1	1.0±0.0	1.1±0.1	3.2
CCL21	1.0	1.0±0.2	1.2±0.2	1.0±0.4	3.1
CCL24	1.0	1.0±0.0	1.0±0.1	1.1±0.0	3.1
CXCL2	1.0	1.0±0.0	1.0±0.1	1.1±0.1	3.1
CCL15	1.0	1.0±0.0	1.0±0.0	1.0±0.0	3.0
CXCL7	1.0	1.0±0.0	1.0±0.1	1.0±0.1	3.0
CCL14	1.0	1.0±0.1	0.9±0.0	1.0±0.0	2.9
CCL5	1.0	1.0±0.1	0.9±0.1	0.9±0.3	2.9
CXCL1	1.0	1.0±0.2	1.0±0.1	0.9±0.1	2.9
CCL25	1.0	0.8±0.4	1.0±0.0	1.0±0.0	2.8
CCL3	1.0	0.9±0.1	0.8±0.0	1.0±0.1	2.7
CXCL9	1.0	0.8±0.4	0.8±0.4	1.1±0.9	2.7
CCL20	1.0	0.8±0.3	0.8±0.3	0.7±0.2	2.2
CCL11	1.0	0.6±0.4	0.6±0.4	0.5±0.4	1.8

Fold change in chemokine secretion over 0 upon stimulation with the indicated concentrations of TGFβ is shown. Cumulative fold change is calculated by the summation of fold changes observed in 0.4, 4, 40 ng/ml stimulation conditions. n=3 donors

Table S6. MSC's matrix chemokine responses to IL10+ TGFβ

	IL-10+TGFβ (ng/ml)				
	0	**0.4**	**4**	**40**	**Cumulative**
CCL19	1.0	0.8±0.3	0.8±0.3	7.9±12.4	9.5
CXCL11	1.0	3.0±2.0	3.0±2.0	2.9±2.2	9.0
CCL7	1.0	2.2±0.9	2.2±0.9	2.5±0.9	7.0
CCL8	1.0	1.4±0.6	1.4±0.6	2.3±2.1	5.0
CCL23	1.0	1.8±1.9	1.8±1.9	0.8±0.5	4.4
CCL21	1.0	1.3±0.5	1.3±0.5	1.3±0.6	3.9
CCL26	1.0	1.2±0.4	1.2±0.4	1.2±0.7	3.6
CXCL10	1.0	1.1±0.2	1.1±0.2	1.3±0.4	3.5
CCL5	1.0	1.3±0.2	1.3±0.2	1.0±0.3	3.5
CCL22	1.0	1.1±0.4	1.1±0.4	1.2±0.2	3.4
CCL13	1.0	1.1±0.1	1.1±0.1	1.1±0.1	3.4
CX3CL1	1.0	1.2±0.2	1.2±0.2	1.0±0.3	3.4
CXCL16	1.0	1.1±0.0	1.1±0.0	1.1±0.1	3.3
CCL1	1.0	1.0±0.0	1.0±0.0	1.4±0.7	3.3
CCL27	1.0	1.0±0.2	1.0±0.2	1.2±0.1	3.3
CCL17	1.0	1.2±0.6	1.2±0.6	0.9±0.2	3.3
CCL3	1.0	1.0±0.1	1.0±0.1	1.1±0.2	3.2
CCL24	1.0	1.0±0.1	1.0±0.1	1.1±0.1	3.1
CXCL2	1.0	1.0±0.1	1.0±0.1	1.0±0.0	3.1
CCL18	1.0	1.0±0.1	1.0±0.1	1.0±0.1	3.0
CXCL9	1.0	1.1±0.8	1.1±0.8	0.8±0.4	3.0
CXCL7	1.0	1.0±0.0	1.0±0.0	1.0±0.0	3.0
CCL15	1.0	1.0±0.0	1.0±0.0	1.0±0.0	3.0
CCL20	1.0	1.0±0.3	1.0±0.3	0.9±0.2	2.9
CCL14	1.0	1.0±0.1	1.0±0.1	1.0±0.0	2.9
CXCL14	1.0	1.0±0.8	1.0±0.8	0.7±0.3	2.8
CXCL1	1.0	0.9±0.1	0.9±0.1	0.8±0.1	2.6
CCL28	1.0	0.8±0.3	0.8±0.3	0.9±0.1	2.5
CXCL6	1.0	0.8±0.1	0.8±0.1	0.8±0.1	2.4
CCL11	1.0	0.7±0.3	0.7±0.3	0.5±0.2	1.9
CCL25	1.0	0.5±0.4	0.5±0.4	0.5±0.4	1.6

Fold change in chemokine secretion over 0 upon stimulation with the indicated concentrations of IL10+TGFβ is shown. Cumulative fold change is calculated by the summation of fold changes observed in 0.4, 4, 40 ng/ml stimulation conditions. n=3 donors

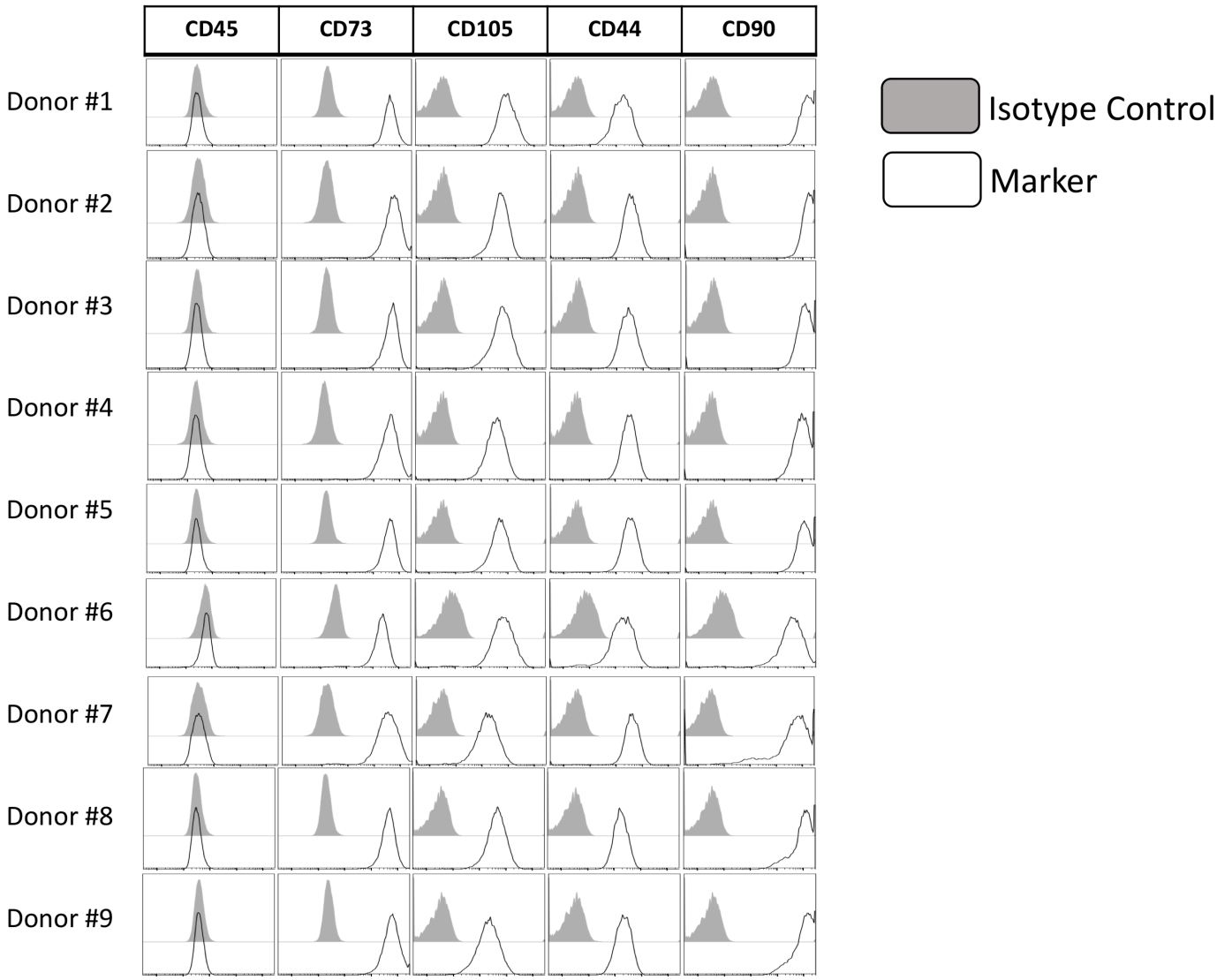

Figure S1: Identity of human bone marrow derived Mesenchymal Stromal Cells. Histogram plots are shown with appropriate isotype controls and marker expression

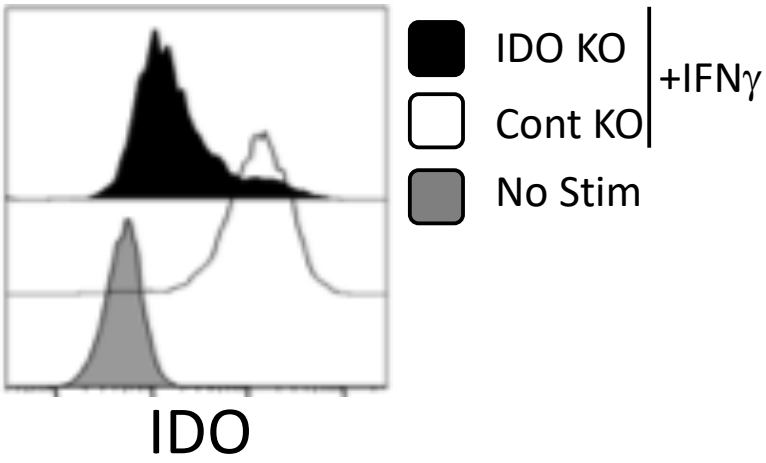

Figure S2: Knock down efficiency of IDO expression in human bone marrow derived Mesenchymal stromal cells transfected with control or IDO siRNA. Intracellular IDO protein levels were measured using flowcytometry.

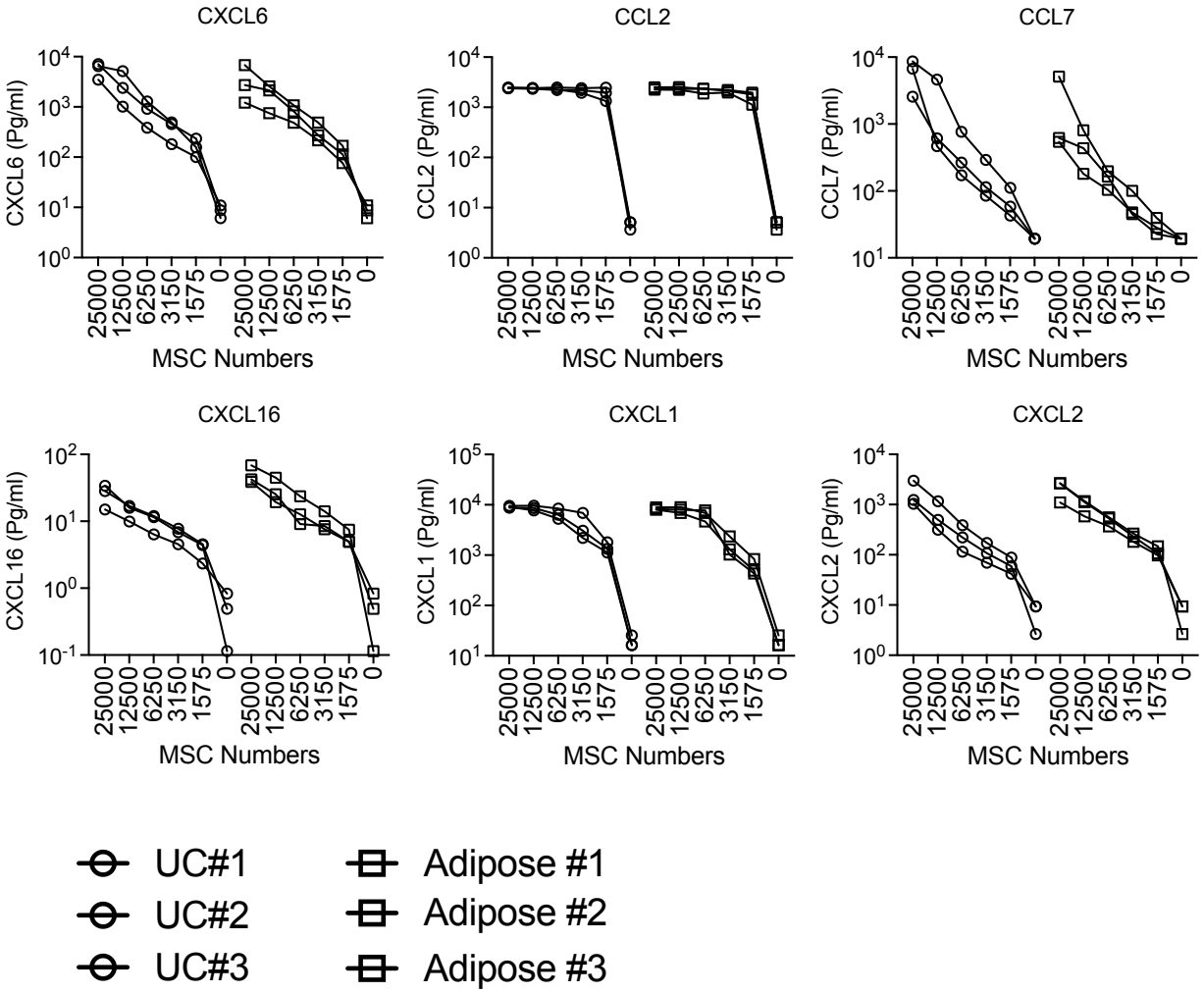

Figure S3: Innate chemokine expression of human Umbilical Cord (UC) or Adipose tissue derived MSCs (n=3 donors). Supernatants of adipose or umbilical Cord (UC) MSCs were investigated for CXCL6, CCL2, CCL7, CXCL16, CXCL1, CXCL2. Secretion levels of these chemokines at different MSC density are shown.

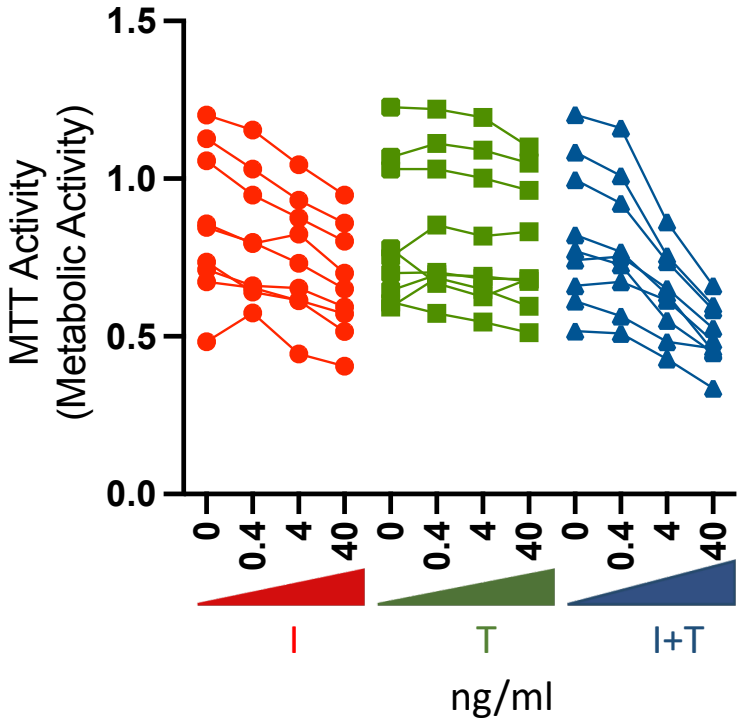

Figure S4: MTT analysis of human bone marrow derived MSCs stimulated with IFNγ and/or TNFα for 48 hours.

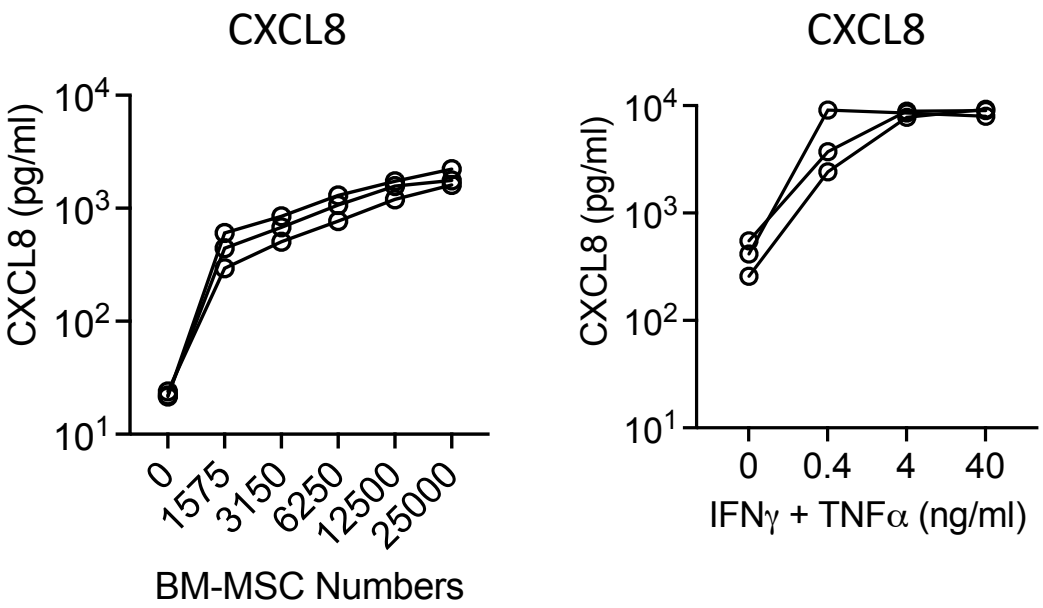

Figure S5: Expression and regulation of CXCL8 in human bone marrow derived MSCs. A. Supernatants of human bone marrow derived MSCs (N=3 donors) were investigated for CXCL8. Secretion levels at different MSC density are shown. (B) CXCL8 secretion from IFNγ and TNFα stimulated human bone marrow derived MSCs is shown