

## Supplementary data

**Table S1: Frequency of macrophage surface markers:** Frequencies of macrophage surface markers (CD80, CD163 and CD206) are tabulated based on macrophage subtype and iPSCM-CM treatment. MDMs from different donors were used. Frequencies were measured from live, single, CD68+ cells in a BD LSR-II FACS. Results are expressed as Mean +/- SEM (n=3).

a)

CD80	M0	M1	M2	M2a	M2b	M2c
Control	61.0 ± 1.2	15.6 ± 3.0	7.4 ± 3.4	1.7 ± 0.5	1.7 ± 0.5	0.6 ± 0.1
iPS-cm	62.1 ± 8.4	13.9 ± 2.8	5.2 ± 1.5	1.3 ± 0.2	1.3 ± 0.2	2.1 ± 0.7
iPS-cm + APP	56.0 ± 2.8	7.3 ± 2.4	1.9 ± 1.2	0.8 ± 0.2	0.8 ± 0.2	0.4 ± 0.1
iPS-cm + ELAVL-1	59.0 ± 12.2	20.1 ± 5.3	4.3 ± 1.8	2.6 ± 0.9	2.6 ± 0.9	4.2 ± 0.3
iPS-cm + ELAVL-1 + APP	63.1 ± 2.0	16.0 ± 3.2	3.0 ± 1.1	1.9 ± 0.6	1.9 ± 0.6	1.4 ± 0.2

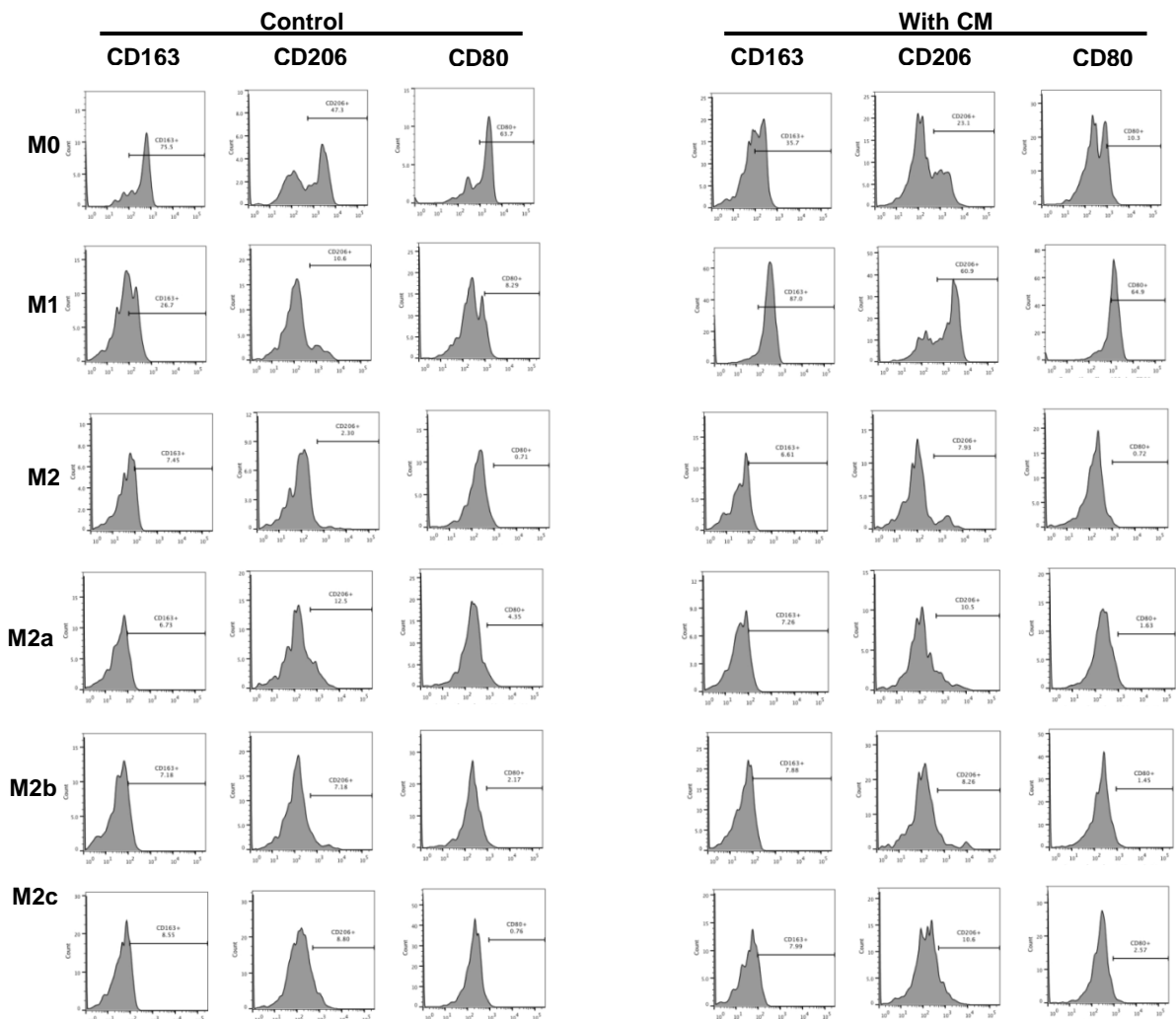
b)

CD163	M0	M1	M2	M2a	M2b	M2c
Control	72.7 ± 1.2	27.1 ± 2.1	7.6 ± 0.7	6.4 ± 0.3	6.8 ± 0.3	7.5 ± 0.5
iPS-cm	80.1 ± 5.9	33.7 ± 1.1	7.6 ± 1.5	7.0 ± 0.7	6.8 ± 0.5	9.1 ± 2.6
iPS-cm + APP	75.5 ± 2.5	25.0 ± 1.3	7.8 ± 0.8	8.0 ± 0.4	8.4 ± 0.4	8.8 ± 0.3
iPS-cm + ELAVL-1	81.0 ± 7.2	49.6 ± 5.1	6.4 ± 0.5	8.5 ± 0.8	8.4 ± 0.7	8.4 ± 0.8
iPS-cm + ELAVL-1 + APP	79.4 ± 1.0	51.2 ± 3.3	6.9 ± 0.6	10.3 ± 0.8	9.9 ± 1.2	9.7 ± 0.7

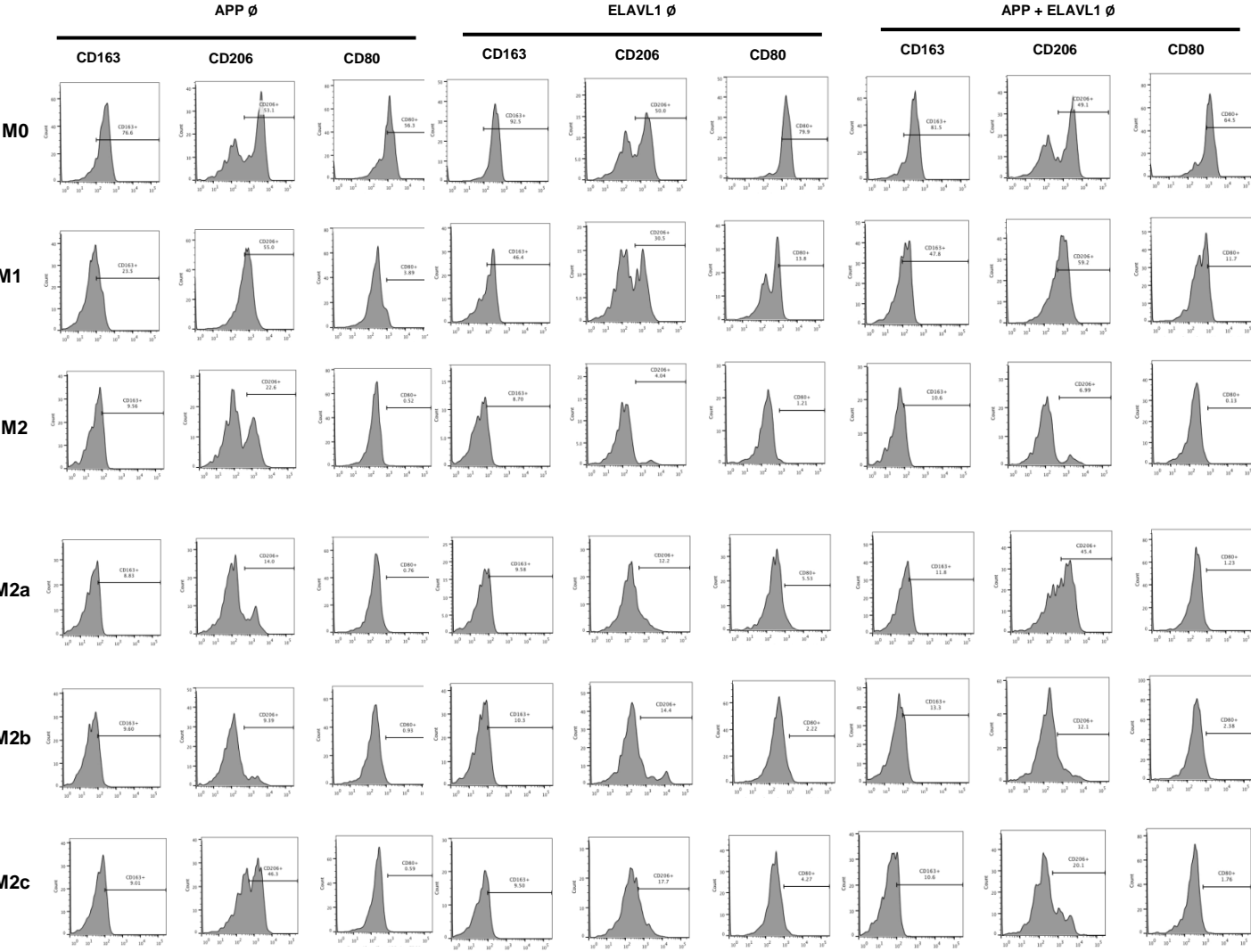
c)

CD206	M0	M1	M2	M2a	M2b	M2c
<b>Control</b>	32.9 ± 7.7	6.0 ± 2.3	7.4 ± 3.4	10.3 ± 1.1	5.1 ± 1.1	5.2 ± 2.0
<b>iPS-cm</b>	35.9 ± 14.1	18.2 ± 3.1	5.2 ± 1.5	7.8 ± 1.4	6.3 ± 0.9	6.4 ± 2.8
<b>iPS-cm + APP</b>	31.8 ± 12.1	52.3 ± 3.0	1.9 ± 1.2	10.2 ± 2.5	9.4 ± 2.8	36.6 ± 4.5
<b>iPS-cm + ELAVL-1</b>	52.5 ± 14.3	41.8 ± 17.2	4.3 ± 1.8	10.8 ± 0.7	9.2 ± 2.5	12.3 ± 3.2
<b>iPS-cm + ELAVL-1 + APP</b>	40.8 ± 4.1	62.1 ± 9.8	3.0 ± 1.1	38.7 ± 5.2	8.6 ± 1.7	16.5 ± 2.1

**Figure S1. Histograms of CD80, CD163 and CD206 expression:** % frequencies of live, single CD68+ macrophages. The effect of iPSC-cm on % frequencies is shown (upper panel).



**Figure S2.** On the lower panel, the effect of APP or ELAVL1 depletion and double depletion of (APP+ELAVL1) on all macrophages subtypes treated with iPSC-cm. Frequencies were measured from live, single, CD68+ cells in a BD LSR-II FACS. A representative histogram is shown per condition (n=3).



**Table S2:** Amount of cytokines secreted by M2a macrophages in response to various treatments. Values represented in ng/ml and data is presented as (mean±SEM).

	IL-1 $\beta$	CCL-8	CSF-2	CXCL-10	MIF
Control	7.2±1.4	653.2±316.1	32.04±2.67	9466±424.6	20367±805.2
iPS-cm	18.05±0.035	505.6±108.8	27.08±3.49	5234±1366	33790±4179
iPS-cm + APP	42.37±8.46	1164±591.2	79.45±17.89	18261±7352	17053±3671
iPS-cm + ELAVL-1	19.51±4.79	1242±560.5	42.45±4.844	10602±1834	14943±1062
iPS-cm+ELAVL-1+APP	45.4±0.41	1040±64.58	102.1±23.91	12714±3635	18794±3472

**Table S3:** Relative mRNA gene expression in M2a macrophages in response to various treatments. Value represented as relative mRNA expression and data presented as (mean±SEM).

	PDGFD	TIMP-1	COX2	CD206
Control	0.487±0.1961	4.927±2.83	0.3033±0.008819	29.12±0.9301
iPS-cm	2.72±0.7977	8.457±3.705	1.154±0.1861	14.23±2.813
iPS-cm + APP	1.332±0.6343	7.375±2.975	1.677±0.4334	25.83±2.986
iPS-cm + ELAVL-1	8.293±7.37	13.5±2.116	2.053±1.296	10.74±0.3394
iPS-cm+ELAVL-1+APP	1.55±0.02887	4.911±0.5966	1.13±0.1559	7.8±3.002

**Table S4:** List of Primers used

Cox-2	F	5'-GTC CTG GCG CTC AGC CAT ACA G-3'
	R	5'-TCC TGT CCG GGT ACA ATC GCA C-3'
PDGFD	F	5'-CCT CAG GCG AGA TGA GAG CAA TCA C-3'
	R	5'-TTC CTG GGG TAG CTG TTC GGG A-3'
CD 206	F	5'- TGTATTCTTTGCCTTTCCCAGTCTC-3'
	R	5'-CCTCAA AACAGACTTACCCAATAGCTG -3'
TIMP-1	F	5'-GGC ATC CTG TTG TTG CTG TGG CT-3'
	R	5'-TGG CCC TGA TGA CGA GGT CGG-3'