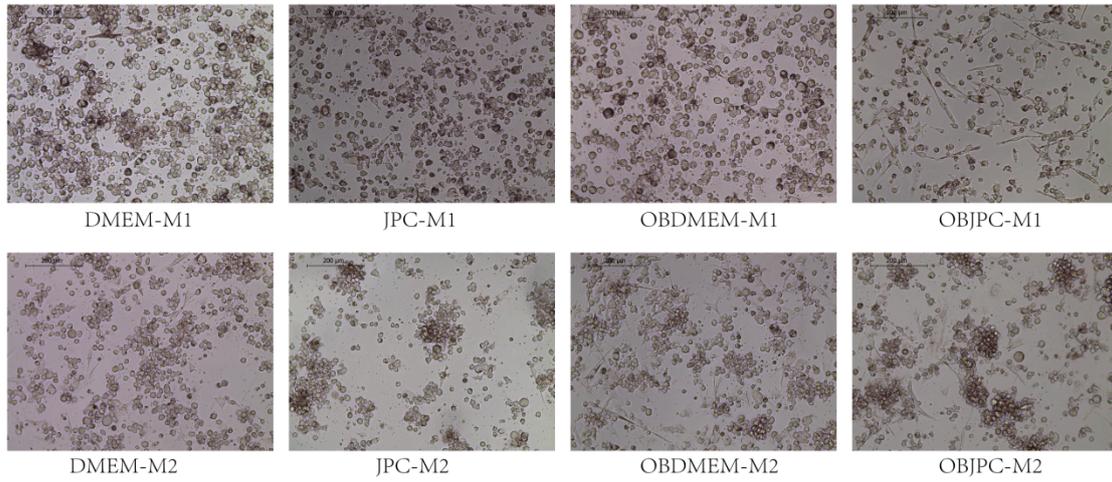
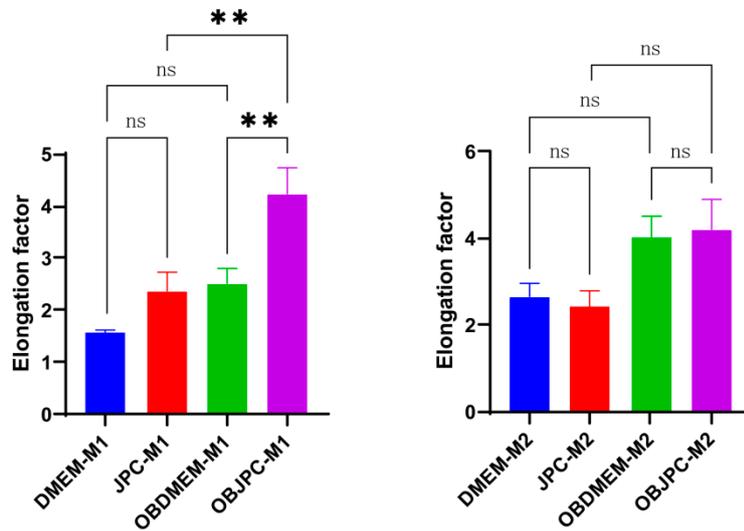
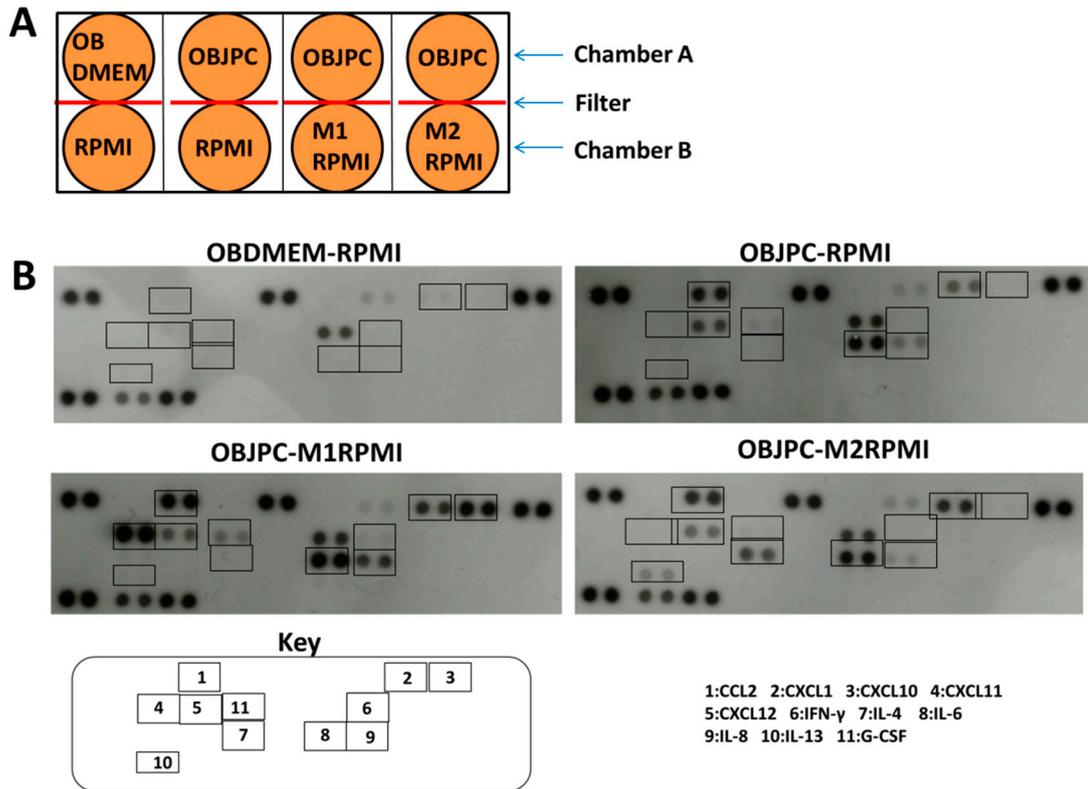


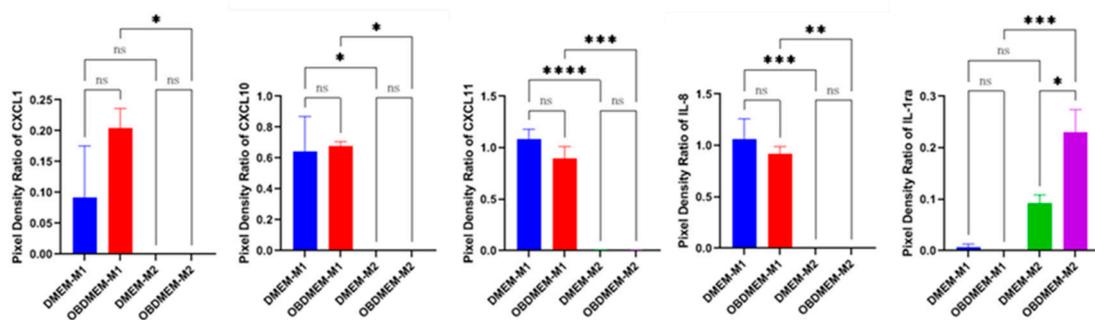
**Figure S1.** Analysis of the osteogenic differentiation capacity of used jaw periosteal cells derived from 3 donors, as detected by the Alizarin staining of calcium phosphate precipitates (red); scale bar: 200  $\mu\text{m}$ .

**A****B**

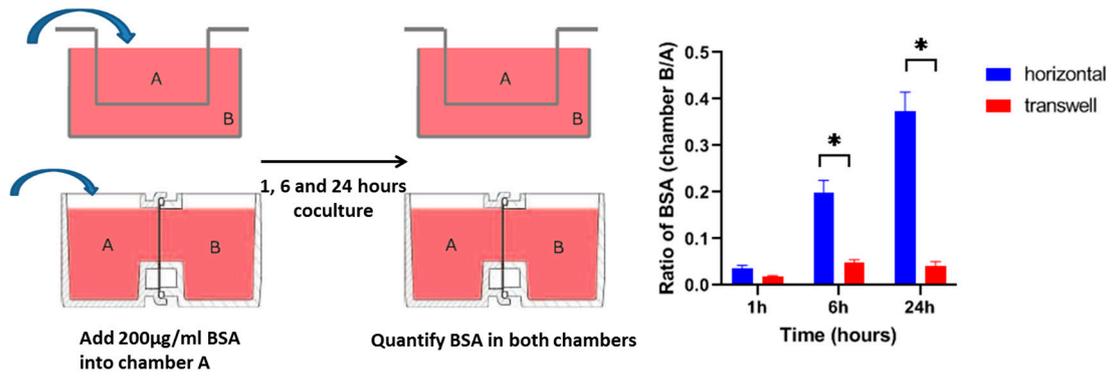
**Figure S2.** Cell morphology and quantification of the elongation factor of mono- and cocultured M1/M2 macrophages. A: Representative phase contrast microscopic pictures of mono- (DMEM, OBDMEM groups) and cocultured (JPC, OBJPC groups) M1 and M2 macrophages cultivated within the coculture system; scale bar: 200  $\mu\text{m}$ . B: Analysis of the elongation factor of mono- and cocultured M1 and M2 macrophages ( $n=30$  cells per group.  $**p<0.01$ )



**Figure S3.** Protein expression analyses in supernatants from monocultured osteogenically induced JPCs (OBJPC). A: Layout of the OBJPC monoculture experiments (OBDMEM: cell-free OBDMEM medium; OBJPC: osteogenically induced JPCs; RPMI: cell-free RPMI medium; M1RPMI: cell-free RPMI medium + LPS + IFN- $\gamma$ ; M2RPMI: cell-free RPMI medium + IL-4 + IL-13). B: Images of proteome membranes incubated with supernatants collected from chamber B (the rectangle marked the spots which were differentially expressed proteins between groups).



**Figure S4.** Comparison of cytokines/chemokines secretion in the supernatants of monocultured M1 and M2 macrophages under normal (DMEM) or osteogenic (OBDMEM) conditions ( $n=3$ ,  $*p < 0.05$ ,  $**p < 0.01$ ,  $***p < 0.001$ ,  $****p < 0.0001$ ).



**Figure S5.** Comparison of the BSA diffusion capacity within the conventional transwell and the horizontal coculture system after 1, 6 and 24 hours of incubation. The ratio of quantified BSA (chamber B/chamber A) in the horizontal coculture plate was significantly higher than that detected in the transwell plate.

**Table S1:** Secretion of OBJPCs in mono-cultures. Secretion of OBJPCs cultivated as monocultures in the horizontal coculture system. OBJPCs were cocultured under M1 (LPS/IFN- $\gamma$ ) or M2 (IL-4/IL-13) conditions and cytokines/chemokines expression patterns were analyzed by human cytokine proteome arrays.

Groups	M1 culture conditions (LPS/IFN- $\gamma$ )	M2 culture conditions (IL-4/IL-13)
Cytokines/ Chemokines	CCL2/MCP-1	
	CXCL1/GRO $\alpha$	
	CXCL10/IP-10	
	CXCL11/I-TAC	
	CXCL12/SDF-1	
	G-CSF	
	IL-6	
	IL-8 <sup>high</sup>	IL-8 <sup>low</sup>