

Table S1. List of proteins tested by growth factor array.

Name	Function
AR (Amphiregulin)	Mitogenic
EGF (Epidermal Growth Factor)	Mitogenic, differentiation
EGF-R (EGF Receptor)	Binds EGF, mitogenic
HB-EGF (heparin-binding EGF-like growth factor)	Activates EGFR mediated signaling
HGF (Hepatocyte Growth Factor)	Mitogenic, angiogenesis, tissue regeneration
NGFβ (beta Nerve Growth Factor)	Mitogenic, differentiation
FGFβ (beta Fibroblast Growth Factor)	Mitogenic, angiogenic
FGF-4	Mitogenic, tissue regeneration
FGF-6	Mitogenic, tissue regeneration
FGF-7/KGF (Keratinocytes Growth Factor)	Mitogenic (keratinocytes), tissue regeneration
G-CSF* (Granulocyte Colony Stimulating Factor)	Granulocyte production, differentiation, function
GM-CSF* (Granulocyte Macrophage Colony Stimulating Factor)	Granulocyte and macrophage production, differentiation, function
M-CSF* (Macrophage Colony Stimulating Factor)	Macrophage production, differentiation, function
M-CSF-R (Macrophage Colony Stimulating Factor Receptor)	Binds M-CSF, macrophage production, differentiation, function
IGFBP-1 (Insulin like Growth Factor Binding Protein 1)	Binds IGF-1 and IGF-2, cell migration and metabolism
IGFBP-2	Binds IGF-1 and IGF-2
IGFBP-3	Binds IGF-1 and IGF-2, prolongs the half-life of IGFs and alters their interaction with receptors
IGFBP-4	Binds IGF-1 and IGF-2, prolongs the half-life of IGFs and alters their interaction with receptors

IGFBP-6	Binds IGF-2, association with the epithelial-mesenchymal transition
IGF-1	Growth and development
IGF-sR (Insulin like Growth Factor 1 Receptor)	Binds IGF-1
IGF-2	Growth and development
NT-3 (neurotrophin 3)	Survival and differentiation (neuron)
NT-4	Survival and differentiation (neuron)
GDNF (Glial cell Derived Neurotrophic Factor)	Survival, differentiation (neurons)
PDGF-Rα (Platelet Derived Growth Factor Receptor alpha)	Mitogenic (mesenchymal cells)
PDGF-Rβ	Mitogenic (mesenchymal cells)
PDGF-AA (Platelet Derived Growth Factor subunit AA)	Binds and activate PDGF receptor
PDGF-AB	Binds and activate PDGF receptor
PDGF-BB*	Binds and activate PDGF receptor
PLGF (Placental Growth Factor)	Angiogenesis
VEGF-A (Vascular Endothelial Growth Factor A)	Angiogenesis
VEGF-D	Angiogenesis, lymphangiogenesis, endothelial cell growth
VEGF-R2 (VEGF Receptor 2)	Binds VEGFs
VEGF-R3	Binds VEGFs
SCF (Stem Cell Factor, kit ligand)	Pleiotropic
SCF-R (SCF Receptor, CD117/c-kit)	Binds SCFs
TGFα (Transforming Growth Factor alpha)	Mitogenic, differentiation
TGFβ1*	Mitogenic, differentiation
TGFβ2	Mitogenic, differentiation
TGFβ3	Mitogenic, differentiation

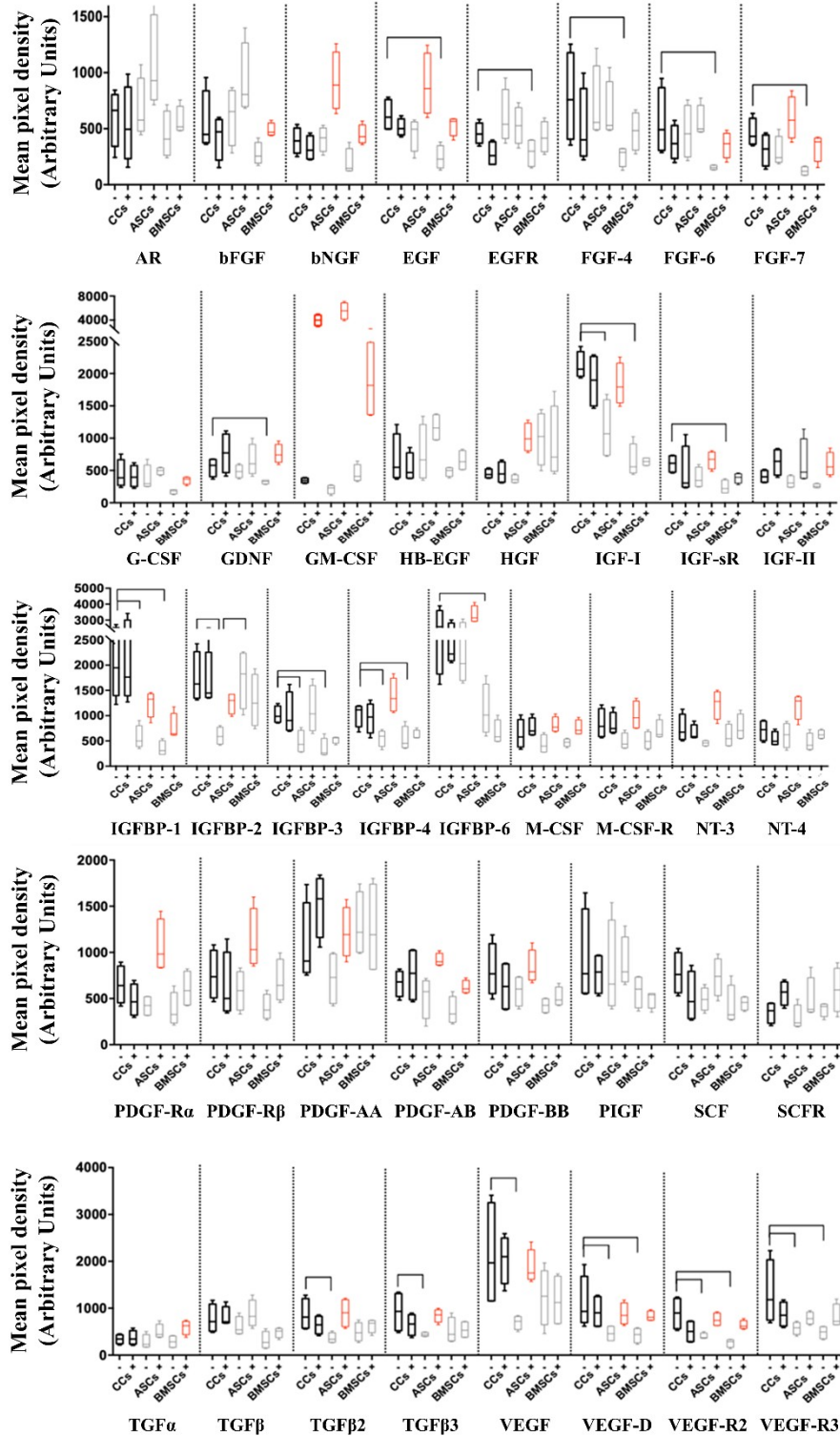
*Evaluated also as anti-inflammatory proteins in inflammatory array.

Table S2. List of proteins tested by inflammatory array.

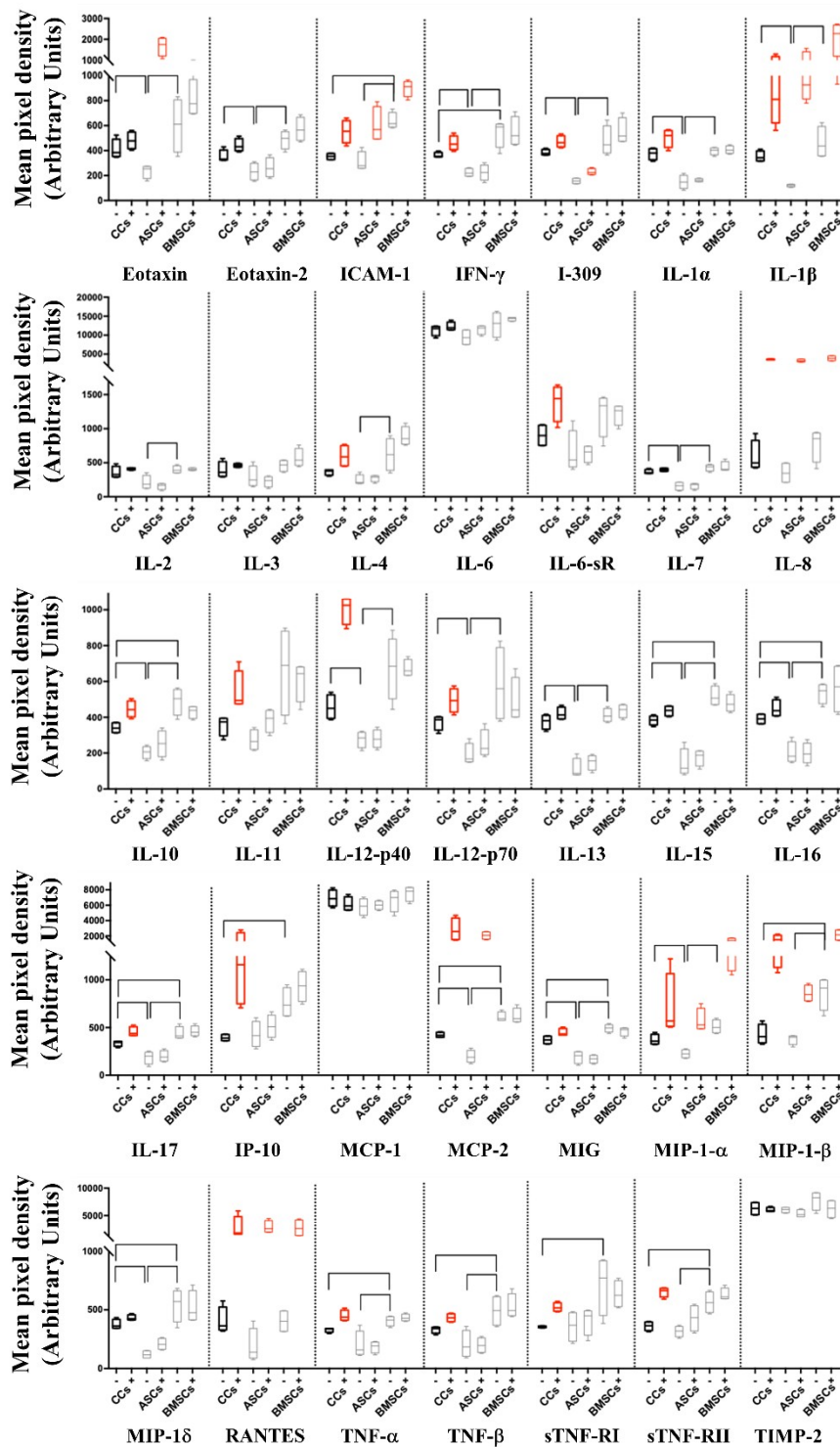
Name	Function
Eotaxin	Eosinophilic-mediated inflammatory diseases
Eotaxin-2	Chemotactic activity on resting T lymphocytes
I-309	Secreted by activated T cells, displays chemotactic activity for monocytes
ICAM-1 (intercellular adhesion molecule 1)	Expressed on endothelial cells and cells of the immune system
IFN-γ (interferon gamma)	Triggers a cellular response to viral and microbial infections
1L-1α (interleukin 1 alpha)	Produced by monocytes and macrophages
IL-1β	Produced by activated macrophages, mediator of the inflammatory response, involved in cell proliferation, differentiation, apoptosis
IL-2	Regulates proliferation of T and B lymphocytes
IL-3	Promotes cell growth
IL-4	Produced by activated T cells, overlapping functions with IL-13
IL-6	Produced at sites of acute and chronic inflammation, promotes the maturation of B cells
IL-6-sR (interleukin 6 soluble receptor)	Binds IL-6
IL-7	Regulates B and T cell development

IL-8	Secreted primarily by neutrophils, chemotactic factor, angiogenesis
IL-10	Immunoregulation
IL-11	Stimulates the T-cell-dependent development of immunoglobulin-producing B cells
IL-12-p40	Acts on T and natural killer cells, expressed by activated macrophages that serve as an essential inducer of Th1 cells development
IL-12-p70	Acts on T and natural killer cells, expressed by activated macrophages that serve as an essential inducer of Th1 cells development
IL-13	Produced primarily by activated Th2 cells, involved in B-cell maturation and differentiation, down-regulates macrophage activity, inhibits the production of pro-inflammatory cytokines and chemokines
IL-15	Regulates T and natural killer cell activation and proliferation
IL-16	Chemoattractant, modulator of T cell activation
IL-17	Proinflammatory cytokine produced by activated T cells, stimulates the expression of IL-6, cyclooxygenase-2, enhances the production of nitric oxide
IP-10 (interferon-inducible protein 10)	Stimulates monocytes, natural killer and T-cell migration, modulates the adhesion molecule expression
MCP-1 (Monocyte Chemotactic Protein 1)	Chemotactic activity for monocytes and basophils

MCP-2	Chemotactic activity for monocytes, lymphocytes, basophils and eosinophils
MIG (Monokine-Induced by IFN-gamma)	Chemoattractant for T cells
MIP-1-α (Macrophage Inflammatory Proteins 1 alpha)	Chemotactic, proinflammatory
MIP-1-β	Chemotactic, proinflammatory
MIP-1-δ	Chemotactic for T cells and monocytes
RANTES (Regulated on Activation, Normal T Cell Expressed and Secreted)	Chemoattractant for blood monocytes, memory T helpers, eosinophils
TNF-α (Tumor Necrosis Factor alpha)	Mainly secreted by macrophages, proinflammatory, regulates cell proliferation, differentiation, apoptosis, lipid metabolism
TNF-β	Produced by lymphocytes, mediates inflammatory, and immunostimulatory responses
sTNF-RI (soluble Tumor Necrosis Factor Receptor I)	Binds and inhibits TNF- α
sTNF-RII	Binds and inhibits TNF- α
TIMP-2 (Tissue Inhibitor of Metalloproteinases 2)	Inhibits the matrix metalloproteinases, suppress the proliferation of endothelial cells



Supplementary Figure 1. Growth factors secretion. Adipose (ASCs)- and bone marrow (BMSCs)-derived MSCs and cartilage cells (CCs) at basal (-) and post-stimulation with IL-1 β (+). Significant differences ($p < 0.05$) in basal levels are evidenced by connecting lines, whereas differences between basal and post-stimulated samples are indicated as red boxes. Data are expressed as mean \pm SD ($n=4$).



Supplementary Figure 2. Inflammation-related cytokines secretion. Adipose (ASCs)-and bone marrow (BMSCs)-derived MSCs and cartilage cells (CCs) at basal (-) and post-stimulation with IL-1 β (+). Significant differences ($p < 0.05$) in basal levels are evidenced by connecting lines, whereas differences between basal and post-stimulated samples are indicated as red boxes. Data are expressed as mean \pm SD ($n=4$).