

**Table S6.** Focus genes and top functions resulting from the network analysis, per network, for genes upregulated at 1 h post IL-1 $\beta$  treatment in AMCs.

No.	Molecules in Network	Score	Focus Genes	Top Functions
1	CHEMOKINE,CXCL1,CXCL2,CXCL3,CXCR7,DUSP2,DUSP5,ETS,GCH1,I kappa b kinase,Icam,ICAM4 (includes EG:3386),IER2,Ifn,Ikk (family), IL1/IL6/TNF,IRF,MAFF, MSC,NFkB (family),Nfkb-RelA,NFKBIE,NKX3-1,NUAK2,OLR1,PLK3, Pro-inflammatory Cytokine,PTX3,SDC4,Tlr,TNF,TNFAIP2,TNFAIP8,Ube3, ZNF267	44	22	Neurological Disease, Cellular Growth and Proliferation, Nervous System Development and Function
2	ATF3,Caspase 3/7, Cbp/p300, CCNL1,CEBPD,Cyclooxygenase, DUSP1, DUSP6, EGR1, Eotaxin,ERK1/2,ETS1,FOSB,FOSL1,GC-GCR dimer,Growth hormone,IL6, JAK,JINK1/2, JUNB,LIF,N-cor,NR4A2,PDGF BB, PHLDA1, PTGER4,Rar,Rxr, Smad2/3,SOCS,SOCS3, STAT,STAT5a/b,Thyroid hormone receptor, TNC	32	17	Organ Morphology, Reproductive System Development and Function, Cellular Growth and Proliferation
3	BCL3,BCL2A1,BIRC3,CCL20,EFNA1,F3,Fibrinogen,Glucocorticoid-GCR,IER3,Ikb, IKK (complex),IL23,IL1A,IRF1,LYMPHOTOXIN-ALPHA1-BETA2,MHC CLASS I (family), NFKB1,NFkB (complex),Nfkb1-RelA,NFKBIA, PMAIP1,PPAR $\alpha$ -RXR $\alpha$ ,REL, REL/RELA/RELB,RELB,SAA@, SPHINGOMYELINASE,STAT1/3/5 dimer, Stat3-Stat3, SWI-SNF,Tnf receptor, TNFAIP3,TRAF,TRAF1,ZFP36	31	17	Gene Expression, Cell Death, Inflammatory Response
4	ALP,Ap1,BHLHE40,BHLHE41,BMP2,CD83,Collagen type I,Cpla2,CSF2, Estrogen Receptor,GADD45B,HLA-DR,Hsp27,Hsp70,IFN Beta,Ifn gamma,IgG, IL1,IL12 (complex), INHBA,Interferon alpha,KDM6B,LDL,MHC Class II,Nos,P38 MAPK,PI3K,PIM1, PPP1R15A (includes EG:23645),PTGS2,Sapk,Smad,Tgf beta,TRIB1,TWIST1	22	13	Cell Morphology, Tissue Morphology, Cell-To-Cell Signaling and Interaction
5	ALOX5,ANKRD1,BUB1,CCR2,CD55,CDKN2C,CKS1B,CXCL3,DDIT4,EGR3,ELK3,EPHA2,FO SL1,GDF15,HBEGF,hydrogen peroxide,KIT,KLF9,lipoxin A4, MUC5AC,NR4A3, PLA2G4A,PTGER4,RNF19B,SERPINH1,Sod,TCF3,TFDP1,TGFB1,TIAL1,Timp,TXNIP, VCAM1,ZC3H12A,ZFP36	19	12	Cellular Growth and Proliferation, Cell Death, Cardiovascular System Development and Function
6	BDKRB1,C8,C1q,Calcineurin A,CCL2,CD44,Collagen(s),CSF1,CYR61,Elastase,Erm, Fibrin,Focal adhesion kinase,Gpcr,HBEGF,ICAM1,IL1B,JUN/JUNB/JUND,KLF6,Laminin, Mmp,Neurotrophin,Nfat (family),NGF,P110,p70 S6k,Pdgf,PLAU, RCAN1,Secretase gamma,Shc,Sod,Sphk,VCAM1,Vegf	17	12	Cardiovascular System Development and Function, Cell-To-Cell Signaling and Interaction, Tissue Development
7	ADRB2,Akt,BTG2,Calmodulin,Calpain,CaMKII,CD3,Creb,EGR2,ERK,Fgf,FOS,hCG,Integrin,J UN,MAP2K1/2,MAP3K8,Mapk,Mek,PDE4B,Pias,Pka,Pkc(s),PLA2,PLC,PP2A,Rac,Rap1,Ras, Ras homolog,RGS2,SPRY2,SPRY4,TCR,TMSB4	16	10	Cellular Development, Cell Signaling, Nucleic Acid Metabolism

# Only the top 7 scoring networks are depicted.