

**Table S9: Process Networks for Day 36**

Networks	BMP-2			TGF-β1		BMP-2 and TGF-β1	
	Min (p-Value)	p-value	Genes from Active Data	p-value	Genes from Active Data	p-value	Genes from Active Data
Development_EMT_Regulation of epithelial-to-mesenchymal transition	7.550E-23	2.329E-17	SMURF, FGF2, PDGF-R-beta, BMP2, ITGB1, SOX9, HGF, ACTA2, TGF-beta, PDGF receptor, alpha-V/beta-1 integrin, SMURF1, ACTB, MMP-2, WNT, TNF-alpha, TGF-beta 1, Actin, Nestin, BMP4, BMP7, Beta-catenin	7.550E-23	IL-1 beta, SMURF, FGF2, PDGF-R-beta, BMP2, NOTCH1 (NICD), ITGB1, EGF, HGF, ACTA2, TGF-beta, Frizzled, NOTCH1 (NEXT), PDGF receptor, alpha-V/beta-1 integrin, SMURF1, MMP-2, NOTCH1 receptor, FAK1, WNT, TGF-beta 3, TNF-alpha, TGF-beta 1, Actin, Nestin, BMP4, BMP7	3.869E-17	SMURF, FGF2, PDGF-R-beta, BMP2, ITGB1, HGF, ACTA2, TGF-beta, PDGF receptor, alpha-V/beta-1 integrin, SMURF1, MMP-2, FAK1, WNT, TGF-beta 3, TGF-beta 1, Actin, Nestin, BMP4, BMP7, Beta-catenin
Cell adhesion_Platelet-endothelium-leucocyte interactions	1.127E-15	1.917E-12	VEGF-A, IL-6, FGF2, PDGF-R-beta, ITGB1, HGF, TGF-beta, Endoglin, PDGF receptor, MMP-2, VEGFR-2, VCAM1, ICAM1, CD44, TNF-alpha, TGF-beta 1	1.977E-15	IL-1 beta, VEGF-A, ITGAX, IL-6, FGF2, PDGF-R-beta, ITGB1, EGF, HGF, TGF-beta, PDGF receptor, MMP-2, VEGFR-2, VCAM1, FAK1, ICAM1, TGF-beta 3, TNF-alpha, TGF-beta 1	1.127E-15	VEGF-A, ITGAX, IL-6, FGF2, PDGF-R-beta, ITGB1, HGF, TGF-beta, von Willebrand factor, Endoglin, PDGF receptor, MMP-2, VEGFR-2, FAK1, ICAM1, CD44, TGF-beta 3, TGF-beta 1
Signal Transduction_BMP and GDF signaling	2.405E-13	9.175E-13	GDF5, BMP6, RUNX2, HDAC1, BMP2, SOX9, PPAR-gamma, SMURF1, IGF-1, Oct-3/4, CD44, BMP4, BMP7	9.002E-10	GDF5, BMP6, RUNX2, HDAC1, BMP2, PPAR-gamma, SMURF1, IGF-1, Oct-3/4, BMP4, BMP7	2.405E-13	GDF5, BMP6, RUNX2, HDAC1, BMP2, PPAR-gamma, SMURF1, IGF-1, Osteocalcin, Oct-3/4, CD44, BMP4, BMP7
Development_Blood vessel morphogenesis	3.192E-12	7.507E-07	Caspase-3, VEGF-A, FGF2, ErbB2, TERT, VEGFR-2, VCAM1, ICAM1, Thy-1, BMP4, PCAF, Beta-catenin	3.192E-12	IL-1 beta, Caspase-3, VEGF-A, FGF2, NOTCH1 (NICD), EGF, Notch, NOTCH1 (NEXT), NOTCH1	9.140E-05	Caspase-3, VEGF-A, FGF2, ErbB2, VEGFR-2, ICAM1, Thy-1, BMP4, Beta-catenin

					precursor, ErbB2, TERT, NOTCH1 receptor, VEGFR-2, VCAM1, ICAM1, Thy-1, BMP4, PCAF		
Development_Ossification and bone remodeling	1.929E-11	7.899E-11	GDF5, BMP6, Annexin V, HNF1, RUNX2, BMP2, TGF-beta, IGF-1, WNT, TGF-beta 1, HNF1-alpha, BMP4, BMP7, Beta-catenin	2.277E-10	GDF5, BMP6, HNF1, RUNX2, BMP2, TGF-beta, Frizzled, IGF-1, NOTCH1 receptor, WNT, TGF-beta 1, HNF1-alpha, BMP4, BMP7	1.929E-11	GDF5, BMP6, HNF1, RUNX2, BMP2, TGF-beta, IGF-1, Osteocalcin, WNT, TGF-beta 1, HNF1-alpha, BMP4, BMP7, Beta-catenin
Signal transduction_NOTCH signaling	6.160E-11	7.466E-06	VEGF-A, PDGF-R-beta, TGF-beta, PDGF receptor, ErbB2, WNT, CD44, TGF-beta 1, WNT3A, PCAF, Beta-catenin	6.160E-11	VEGF-A, PDGF-R-beta, NOTCH1 (NICD), EGF, TGF-beta, Frizzled, NOTCH1 (NEXT), FZD9, PDGF receptor, NOTCH1 precursor, ErbB2, NOTCH1 receptor, WNT, TGF-beta 3, TGF-beta 1, WNT3A, PCAF	2.781E-06	VEGF-A, PDGF-R-beta, TGF-beta, PDGF receptor, ErbB2, WNT, CD44, TGF-beta 3, TGF-beta 1, WNT3A, Beta-catenin
Apoptosis_Anti-Apoptosis mediated by external signals via PI3K/AKT	5.044E-10	1.443E-08	Caspase-3, NGFR(TNFRSF16), VEGF-A, IL-6, FGF2, PDGF-R-beta, HGF, PDGF receptor, BDNF, ErbB2, IGF-1, VEGFR-2, TNF-alpha, GM-CSF	5.044E-10	IL-1 beta, Caspase-3, NGFR(TNFRSF16), VEGF-A, IL-6, FGF2, PDGF-R-beta, EGF, HGF, PDGF receptor, ErbB2, IGF-1, VEGFR-2, FAK1, TNF-alpha, GM-CSF	3.745E-09	Caspase-3, NGFR(TNFRSF16), VEGF-A, IL-6, FGF2, PDGF-R-beta, HGF, PDGF receptor, BDNF, ErbB2, IGF-1, VEGFR-2, FAK1, GM-CSF
Development_Cartilag development	2.430E-09	1.140E-07	GDF5, BMP6, COL1A1, RUNX2, BMP2, SOX9, TGF-beta 1, BMP4	1.161E-08	GDF5, BMP6, IFN-gamma, COL1A1, RUNX2, BMP2, TGF-beta 3, TGF-beta 1, BMP4	2.430E-09	GDF5, BMP6, IFN-gamma, COL1A1, RUNX2, BMP2, TGF-beta 3, TGF-beta 1, BMP4
Cardiac development_Wnt beta-catenin, Notch, VEGF, IP3 and integrin signaling	1.755E-08	5.726E-05	VEGF-A, ITGB1, ACTA2, VEGFR-2, WNT, TBX5, WNT3A, Beta-catenin	1.755E-08	VEGF-A, NOTCH1 (NICD), ITGB1, ACTA2, Frizzled, NOTCH1 (NEXT), NOTCH1 receptor, VEGFR-2, FAK1, WNT,	2.798E-05	VEGF-A, ITGB1, ACTA2, VEGFR-2, FAK1, WNT, WNT3A, Beta-catenin

					TBX5, WNT3A		
Signal Transduction_TGF-beta, GDF and Activin signaling	3.261E-08	6.292E-05	IL-6, RUNX2, HDAC1, Endoglin, SMURF1, IGF-1, Oct-3/4, TGF-beta 1	2.062E-07	IL-6, RUNX2, HDAC1, NOTCH1 precursor, SMURF1, IGF-1, Oct-3/4, FAK1, TGF-beta 3, TGF-beta 1, Integrin	3.261E-08	IL-6, RUNX2, HDAC1, Endoglin, SMURF1, IGF-1, Oct-3/4, FAK1, TGF-beta 3, TGF-beta 1, Integrin