

Table S8: Process Networks for Day 21

Networks	Min (p-Value)	BMP-2		TGF-β1		BMP-2 and TGF-β1	
		p-value	Genes from Active Data	p-value	Genes from Active Data	p-value	Genes from Active Data
Cell adhesion_Platelet-endothelium-leucocyte interactions	5.752E-17	2.030 E-13	IL-1 beta, ITGAX, PDGF-R-beta, EGF, HGF, TGF-beta, G-CSF, Endoglin, PDGF receptor, MMP-2, VEGFR-2, FAK1, CD44, TGF-beta 3, TGF-beta 1, TNF-alpha	5.752 E-17	IL-1 beta, VEGF-A, ITGAX, PDGF-R-beta, ITGB1, EGF, TGF-beta, G-CSF, Endoglin, PDGF receptor, MMP-2, VEGFR-2, VCAM1, FAK1, CD44, TGF-beta 3, TGF-beta 1, TNF-alpha	1.953 E-15	IL-1 beta, VEGF-A, ITGAX, PDGF-R-beta, ITGB1, EGF, TGF-beta, G-CSF, Endoglin, PDGF receptor, MMP-2, VEGFR-2, VCAM1, FAK1, CD44, TGF-beta 3, TNF-alpha, TGF-beta 1
Development_EMT_Regulation of epithelial-to-mesenchymal transition	4.810E-16	8.369 E-14	IL-1 beta, SMURF, PDGF-R-beta, BMP2, EGF, HGF, ACTA2, TGF-beta, PDGF receptor, SMURF1, MMP-2, FAK1, TGF-beta 3, TGF-beta 1, TNF-alpha, Actin, BMP4, Beta-catenin	4.810 E-16	IL-1 beta, SMURF, PDGF-R-beta, ITGB1, EGF, ACTA2, TGF-beta, PDGF receptor, SMURF1, MMP-2, FAK1, WNT, TGF-beta 3, TGF-beta 1, TNF-alpha, Actin, SMAD4, BMP4, Beta-catenin	1.330 E-14	IL-1 beta, SMURF, PDGF-R-beta, ITGB1, EGF, ACTA2, TGF-beta, PDGF receptor, SMURF1, MMP-2, FAK1, WNT, TGF-beta 3, TNF-alpha, TGF-beta 1, Actin, BMP7, Beta-catenin
Signal Transduction_BMP and GDF signaling	3.823E-12	3.823 E-12	GDF5, BMP6, RUNX2, HDAC1, BMP2, PPAR-gamma, SMURF1, IGF-1, Osteocalcin, Oct-3/4, CD44, BMP4	4.101 E-05	GDF5, SMURF1, IGF-1, CD44, SMAD4, BMP4	2.408 E-07	GDF5, RUNX2, HDAC1, PPAR-gamma, SMURF1, Osteocalcin, CD44, BMP7
Development_Ossification and bone remodeling	1.791E-10	1.791 E-10	GDF5, BMP6, Annexin V, HNF1, RUNX2, BMP2, TGF-beta, IGF-1, Osteocalcin, TGF-beta 1, HNF1-alpha, BMP4, Beta-catenin	9.041 E-09	GDF5, Annexin V, HNF1, TGF-beta, IGF-1, WNT, TGF-beta 1, SMAD4, HNF1-alpha, BMP4, Beta-catenin	1.503 E-05	GDF5, RUNX2, TGF-beta, Osteocalcin, WNT, TGF-beta 1, BMP7, Beta-catenin
Signal transduction_NOTCH signaling	5.441E-10	9.031 E-05	PDGF-R-beta, EGF, TGF-beta, PDGF receptor, ErbB2, CD44, TGF-beta 3, TGF-beta 1, Beta-catenin	5.441 E-10	VEGF-A, PDGF-R-beta, EGF, TGF-beta, PDGF receptor, ErbB2, WNT, CD44, TGF-beta 3, TGF-beta 1, SMAD4, WNT3A, PCAF,	8.135 E-08	VEGF-A, PDGF-R-beta, EGF, TGF-beta, PDGF receptor, ErbB2, WNT, CD44, TGF-beta 3, TGF-beta 1, WNT3A, Beta-catenin

					Beta-catenin		
Development_Cartilage development	1.765E-09	1.765 E-09	GDF5, BMP6, IFN-gamma, COL1A1, RUNX2, BMP2, TGF-beta 3, TGF-beta 1, BMP4	6.400 E-06	GDF5, IFN-gamma, TGF-beta 3, TGF-beta 1, SMAD4, BMP4	1.071 E-04	GDF5, IFN-gamma, RUNX2, TGF-beta 3, TGF-beta 1
Apoptosis_Anti-Apoptosis mediated by external signals via PI3K/AKT	2.297E-09	2.297 E-09	IL-1 beta, Caspase-3, NGFR(TNFRSF16), PDGF-R-beta, EGF, HGF, PDGF receptor, BDNF, ErbB2, IGF-1, VEGFR-2, FAK1, TNF-alpha, FGF10	5.593 E-08	IL-1 beta, VEGF-A, PDGF-R-beta, EGF, PDGF receptor, BDNF, ErbB2, IGF-1, VEGFR-2, FAK1, TNF-alpha, FGF10	6.481 E-07	IL-1 beta, Caspase-3, NGFR(TNFRSF16), VEGF-A, PDGF-R-beta, EGF, PDGF receptor, BDNF, ErbB2, FAK1, TNF-alpha
Signal Transduction_TGF-beta, GDF and Activin signaling	2.580E-07	2.580 E-07	RUNX2, HDAC1, Endoglin, SMURF1, IGF-1, Oct-3/4, FAK1, TGF-beta 3, TGF-beta 1, Integrin	1.021 E-05	Endoglin, SMURF1, IGF-1, FAK1, TGF-beta 3, TGF-beta 1, Integrin, SMAD4	1.185 E-05	RUNX2, HDAC1, Endoglin, SMURF1, FAK1, TGF-beta 3, TGF-beta 1, Integrin
Signal transduction_WNT signaling	3.572E-07	4.719 E-04	EGF, TGF-beta, MMP-2, CD44, TGF-beta 3, TGF-beta 1, Beta-catenin	3.572 E-07	VEGF-A, EGF, TGF-beta, MMP-2, WNT, CD44, TGF-beta 3, TGF-beta 1, WNT3A, Beta-catenin	4.328 E-07	VEGF-A, EGF, TGF-beta, MMP-2, WNT, CD44, TGF-beta 3, TGF-beta 1, WNT3A, Beta-catenin
Development_Blood vessel morphogenesis	4.230E-07	6.917 E-05	IL-1 beta, Caspase-3, EGF, ErbB2, VEGFR-2, FGF10, Thy-1, BMP4, Beta-catenin	4.230 E-07	IL-1 beta, VEGF-A, EGF, ErbB2, VEGFR-2, VCAM1, FGF10, Thy-1, BMP4, PCAF, Beta-catenin	2.123 E-04	IL-1 beta, Caspase-3, VEGF-A, EGF, ErbB2, VCAM1, Thy-1, Beta-catenin