

**Table S7: Process Networks for Day 14**

		BMP-2		TGF- $\beta$ 1		BMP-2 and TGF- $\beta$ 1	
Networks	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	1.672E-15	5.678E-11	IL-1 beta, PDGFR-beta, NOTCH1 (NICD), ITGB1, SOX9, TGF-beta, Frizzled, NOTCH1 (NEXT), PDGF receptor, NOTCH1 receptor, TGF-beta 3, BMP4, Beta-catenin	1.158E-06	ITGB1, SOX9, TGF-beta, ACTB, MMP-2, TGF-beta 3, Actin, Beta-catenin, RhoA	1.672E-15	IL-1 beta, SMURF, BMP2, NOTCH1 (NICD), ITGB1, SOX9, ACTA2, TGF-beta, Frizzled, NOTCH1 (NEXT), SMURF1, MMP-2, NOTCH1 receptor, FAK1, TGF-beta 3, TNF-alpha, Actin, BMP7, Beta-catenin
Cell adhesion_Platelet-endothelium-leucocyte interactions	3.367E-10	1.178E-08	IL-1 beta, VEGF-A, PDGFR-beta, ITGB1, TGF-beta, von Willebrand factor, PDGF receptor, VEGFR-2, VCAM1, TGF-beta 3	1.473E-06	ITGB1, TGF-beta, G-CSF, Endoglin, MMP-2, VEGFR-2, VCAM1, TGF-beta 3	3.367E-10	IL-1 beta, ITGAX, ITGB1, TGF-beta, G-CSF, Endoglin, MMP-2, VEGFR-2, VCAM1, FAK1, CD44, TGF-beta 3, TNF-alpha
Development_Blood vessel morphogenesis	7.622E-10	7.622E-10	IL-1 beta, VEGF-A, NOTCH1 (NICD), Notch, NOTCH1 (NEXT), NOTCH1 precursor, NOTCH1 receptor, VEGFR-2, VCAM1, Thy-1, BMP4, Beta-catenin	7.370E-04	VEGFR-2, VCAM1, Thy-1, FGF10, Beta-catenin, RhoA	8.757E-09	IL-1 beta, Caspase-3, NOTCH1 (NICD), Notch, NOTCH1 (NEXT), NOTCH1 precursor, NOTCH1 receptor, VEGFR-2, VCAM1, FGF10, Thy-1, PCAF, Beta-catenin
Signal Transduction_BMP and GDF signaling	1.023E-09	3.243E-07	GDF5, HDAC1, SOX9, PPAR-gamma, IGF-1, Osteocalcin, BMP4	2.162E-07	RUNX2, HDAC1, SOX9, PPAR-gamma, IGF-1, Osteocalcin, Oct-3/4	1.023E-09	BMP6, BMP2, SOX9, PPAR-gamma, SMURF1, IGF-1, Osteocalcin, Oct-3/4, CD44, BMP7
Signal transduction_NOTCH signaling	1.134E-09	1.134E-09	VEGF-A, PDGFR-beta, NOTCH1 (NICD), TGF-	1.076E-01	TGF-beta, TGF-beta 3, Beta-catenin	1.101E-06	NOTCH1 (NICD), TGF-beta, Frizzled,

			beta, Frizzled, NOTCH1 (NEXT), FZD9, PDGF receptor, NOTCH1 precursor, NOTCH1 receptor, TGF-beta 3, Beta-catenin				NOTCH1 (NEXT), FZD9, NOTCH1 precursor, NOTCH1 receptor, CD44, TGF-beta 3, PCAF, Beta-catenin
Development_Neurogenesis_Axonal guidance	6.379E-09	1.472E-04	alpha-6/beta-1 integrin, NGFR(TNFRSF 16), ITGB1, PPAR-gamma, BDNF, NGFR (ICD), NGFR (CTF)	6.379E-09	alpha-6/beta-1 integrin, NGFR(TNFRSF 16), ITGB1, PPAR-gamma, Actin cytoskeletal, ACTB, BDNF, NGFR (ICD), Actin, NGFR (CTF), RhoA	2.949E-04	NGFR(TNFRSF 16), ITGB1, PPAR-gamma, NGFR (ICD), FAK1, Actin, Integrin, NGFR (CTF)
Development_Ossification and bone remodeling	1.717E-08	6.962E-08	GDF5, Annexin V, TGF-beta, Frizzled, IGF-1, NOTCH1 receptor, Osteocalcin, BMP4, Beta-catenin	6.452E-07	Annexin V, HNF1, RUNX2, TGF-beta, IGF-1, Osteocalcin, HNF1-alpha, Beta-catenin	1.717E-08	BMP6, HNF1, BMP2, TGF-beta, Frizzled, IGF-1, NOTCH1 receptor, Osteocalcin, HNF1-alpha, BMP7, Beta-catenin
Cell adhesion_Amyloid proteins	1.616E-07	5.207E-06	NGFR(TNFRSF 16), NOTCH1 (NICD), Frizzled, Notch, NGFR (ICD), NOTCH1 receptor, NGFR (CTF), Beta-catenin	3.326E-06	NGFR(TNFRSF 16), Actin cytoskeletal, ACTB, NGFR (ICD), Actin, NGFR (CTF), Beta-catenin, RhoA	1.616E-07	Caspase-3, NGFR(TNFRSF 16), NOTCH1 (NICD), Frizzled, Notch, NGFR (ICD), NOTCH1 receptor, FAK1, Actin, NGFR (CTF), Beta-catenin
Cardiac development_Wnt_beta-catenin, Notch, VEGF, IP3 and integrin signaling	7.200E-07	7.200E-07	VEGF-A, NOTCH1 (NICD), ITGB1, Frizzled, NOTCH1 (NEXT), NOTCH1 receptor, VEGFR-2, Beta-catenin	5.886E-03	ITGB1, VEGFR-2, Beta-catenin, RhoA	1.477E-06	NOTCH1 (NICD), ITGB1, ACTA2, Frizzled, NOTCH1 (NEXT), NOTCH1 receptor, VEGFR-2, FAK1, Beta-catenin
Cell adhesion_Glycoconjugates	9.427E-07	1.480E-03	alpha-6/beta-1 integrin, NGFR(TNFRSF 16), CD45,	9.427E-07	alpha-6/beta-1 integrin, NGFR(TNFRSF 16), ITGB1,	2.870E-05	Caspase-3, NGFR(TNFRSF 16), CD45, ITGB1, FAK1,

			ITGB1, BDNF		Actin cytoskeletal, ACTB, BDNF, Actin, RhoA		CD44, Actin, Integrin
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