

SUPPLEMENTARY TABLE S4. NETWORK ANALYSIS OF GENES REGULATED BY HUMAN MESENCHYMAL STEM CELLS IN RESPONSE TO 10% UNIAXIAL CYCLIC TENSILE STRAIN IN THREE-DIMENSIONAL COLLAGEN CULTURE

<i>ID</i>	<i>Molecules in network</i>	<i>Score</i>	<i>Focus genes</i>	<i>Top functions</i>
1	<i>ADAM12, Alpha catenin, ARL4C, BHLHE40, Caveolin, Cg, Collagen Alpha1, Collagen type IV, EFEMP1, ERK1/2, Filamin, FKHR, FSH, FST, HAS2, HLX, ITPR3, JARID2, JUND, LBH, Lh, PDGF BB, PLAUI, PLAUIR, PMEPA1, Proinsulin, PTX3, RALA, SPTLC2, STX4, TBX3, Tgf beta, TNFRSF12A, TRIB1, VEGFA</i>	52	22	Cellular movement, skeletal and muscular system development and function, cell morphology
2	<i>BMP1, C10orf118, C10orf137, CDS1, CHST3, Ck2, DUSP23, FXYD5, FZD8 (includes EG:14370), GGH, IL4 (includes EG:16189), IRF2BP2, Jnk, KRTCAP3, MICALL1, MTFR1, MUS81, NAA11, NAA15, NAA16, NXN, PDLIM4, PVRL3, S100PBP, SCO2, SGPL1, SGSM1, SHC1 (includes EG:20416), SLC6A3, TP53 (includes EG:22059), TRMT6, TRMT61A, UBC, UCK2, ZNF281</i>	42	19	Cardiovascular disease, tissue morphology, molecular transport
3	<i>26s Proteasome, Alp, AMPK, Ap1, ATXN1, CAMK2N1, CLU, Collagen type I, Creb, DLÉU2, E2f, FOXD1, FSCN1 (includes EG:14086), IFN Beta, IL1, INSIG1, IRS1, LDL, LRRFIP1, LTBP3, MCAM, Mek, NFkB (complex), p70 S6k, Pdgf (complex), PIK3CD, Pkc(s), PLC gamma, PP2A, PRRX1, RAPIGDS1, Ras, Rb, Sos, Ubiquitin</i>	30	14	Cancer, gastrointestinal disease, cellular movement
4	<i>14-3-3, Actin, Akt, CRISPLD2, DNAJC7, ERK, estrogen receptor, EZR, Focal adhesion kinase, Gsk3, Histone h3, Hsp90, Ige, IGF1R, IgG1, IgG, IL12 (complex), Immunoglobulin, Insulin, Integrin, Interferon alpha, Jnk, Mapk, MELK, Nfat (family), P38 MAPK, p85 (pik3r), PI3K (complex), Pik3r, Shc, STMN4, SYNPO2, TCF4, Vegf, WNT5B</i>	15	9	Cell morphology, hair and skin development and function, hereditary disorder