extracellular matrix organization cluster age APLP1 COL11A2 ADAMTS16 **COLQ** ADAMTS8 ITGA8 ERO1A ATXN1L **POSTN** GFOD2 ADAMTS13 MMP16 POMT1 ST7 RECK PRDX4 CSGALNACT1 MMP2 ADAMTS9 SOX9 CCDC80 PDGFRA NR2E1 COL11A1 COL1A2 COL3A1 COL1A1 **NPNT** ADAMTS1 CCN1 FOXF1 MMP28 B4GALT1 ELN CRISPLD2 z-score cluster COL18A1 SMOC2 2 CA3&4 COL9A1 SGZ 0 FBLN1 GCL -2 TGFBI age MMP14 MMP15 Infant PAPLN ECM2 Teen Adult Elderly SMOC1 COL9A2 VWA1 ADAMTS4 COL4A5 **NDNF** FOXF2 SLC39A8 COL5A3 COL9A3 **TNR** COL4A1 COL4A2 FBLN2 ADAMTSL2 COL16A1 HSD17B12 **GFAP** ABI3BP COL27A1 ERCC2 **PXDN** ADAMTS10 MMP24 SPOCK2 OLFML2B BCL3 COL5A2 NF1 COL24A1 DNAJB6 **APP** SERAC1 FURIN MMP17