



**SUPPLEMENTARY FIG. S3. Surface area measurements of cells.** The surface area of cells was measured in CellProfiler and quantified in CellProfiler Analyst. No significant differences were detected between cell surface areas; however, *HATH1*-transfected hWJCs displayed a trend of increased cell surface area over a period of 7 days. Standard deviations were extremely high due to substantial differences in the number of cells available for quantification between groups. Data were collected from one umbilical cord ( $n=1$ ) as a way to test the methodology. Bars indicate the mean surface area measurement of cells within a treatment group. Error bars represent the standard deviation of cells within a treatment group. *MATH-1* represents cells transfected with *MATH-1* pDNA. *HATH1* represents cells transfected with *HATH1* pDNA. *HES1/HES5* represents cells transfected with *HES1* and *HES5* siRNA. *MATH-1/HES1/HES5* represents cells cotransfected with *MATH-1* pDNA, *HES1* siRNA, and *HES5* siRNA. *HATH1/HES1/HES5* represents cells cotransfected with *HATH1* pDNA, *HES1* siRNA, and *HES5* siRNA.