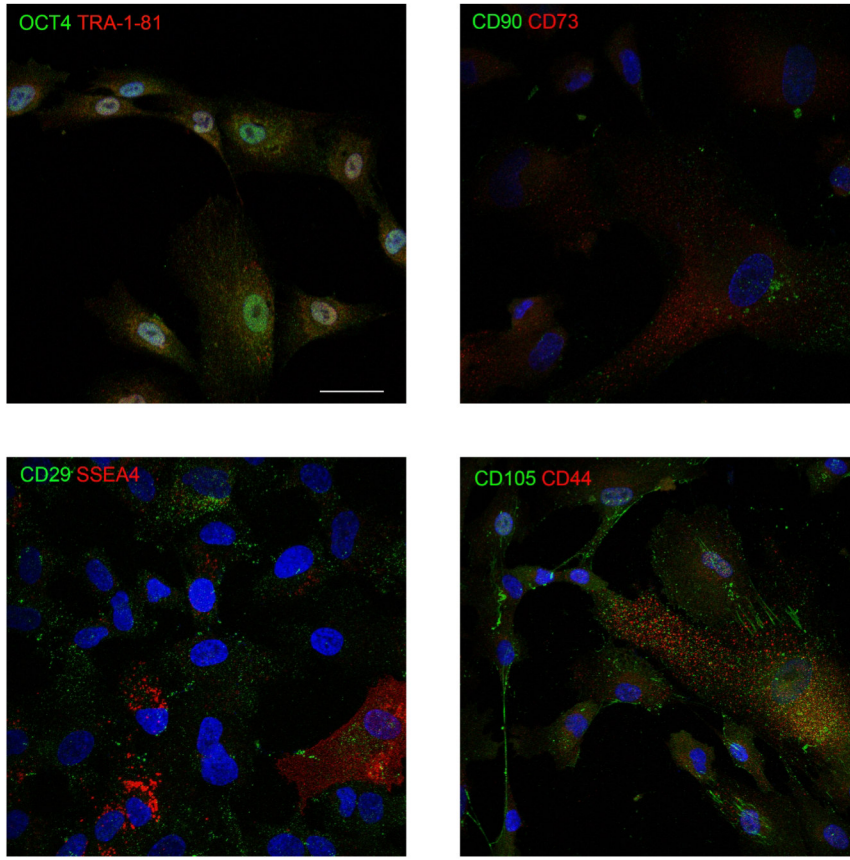


A



B

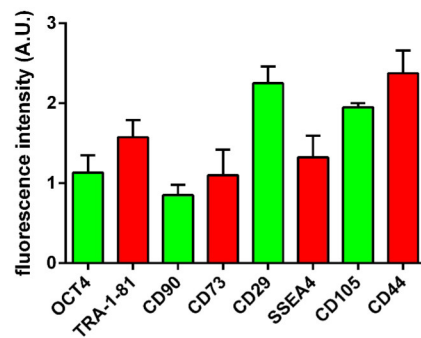


Figure S1. Characterization of amniotic fluid stem cell samples. A) Representative images of stemness (OCT-4, TRA-1-81, SSEA-4) and mesenchymal (CD90, CD73, CD29, CD105, CD44) markers stained after isolation of the amniotic fluid stem cells. B) Average of the relative normalized expression of corrected total cell fluorescence of markers showed in images A. A.U.=arbitrary units. Numeric data are presented as Mean +/- SEM.

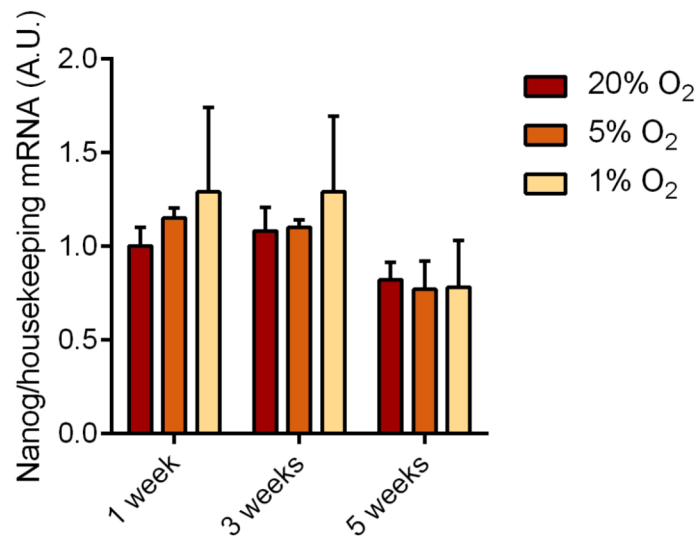


Figure S2. Nanog gene expression. Relative normalized expression of Nanog in cells cultivated at 20%, 5% or 1% oxygen tension. Tubulin and actin were used as housekeeping. A.U.=arbitrary units. Data are presented as Mean +/- SEM.

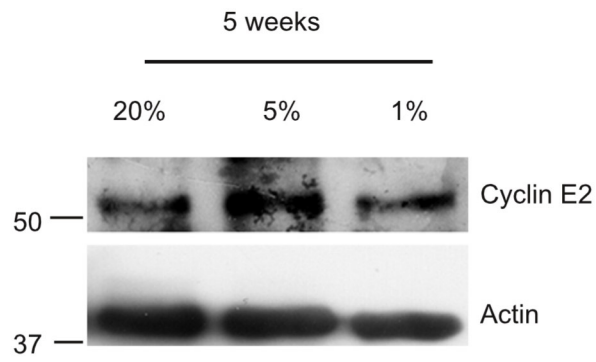


Figure S3. Cyclin E2 protein level. Representative western blot image of Cyclin E2 protein expression.

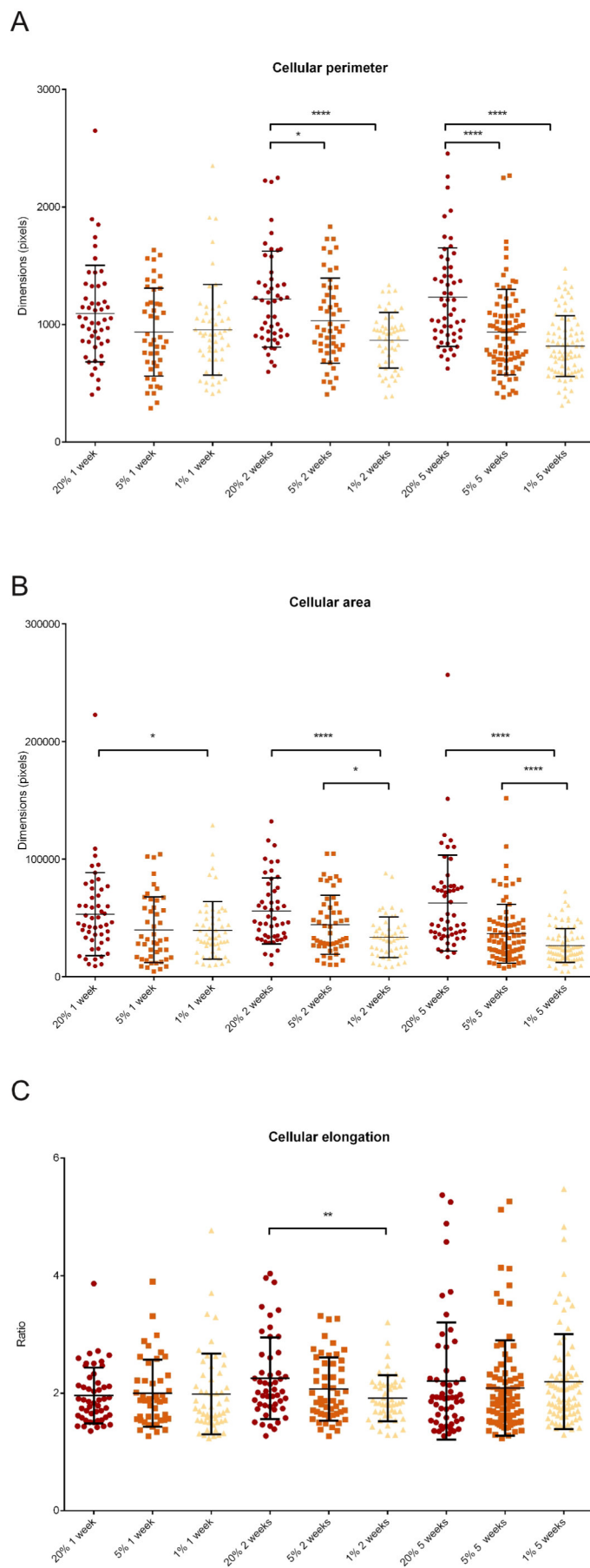


Figure S4. Morphological and biochemical changes of hAFSC cultivated at different oxygen tensions. Representative analysis of cellular perimeter (A), area (B) and elongation (C) of cells cultivated at different oxygen tensions for 1, 2, 5 weeks. *p value < 0.05; ** p value < 0.01; ****p value < 0.0001. Scale bar=30 μ m. Values are reported with SD.

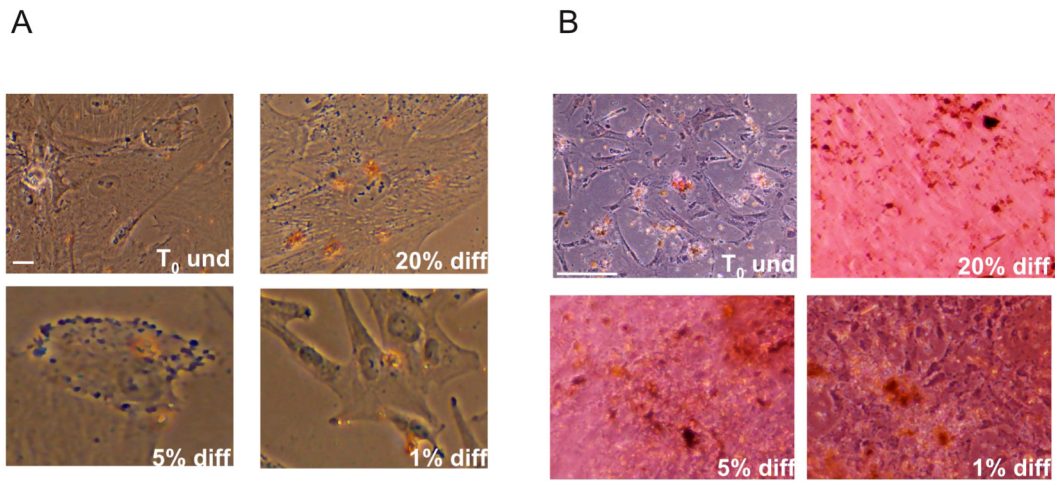


Figure S5. Adipogenic and osteogenic differentiation potential of hAFSC. A) Representative images of Oil Red Staining in cells not differentiated (T₀) or after 21 days of adipose differentiation (diff). Scale bar=10 μ m. B) Representative images of Alizarin Red Staining in cells not differentiated (T₀) or after 21 days of osteogenic differentiation (diff). Scale bar=30 μ m.