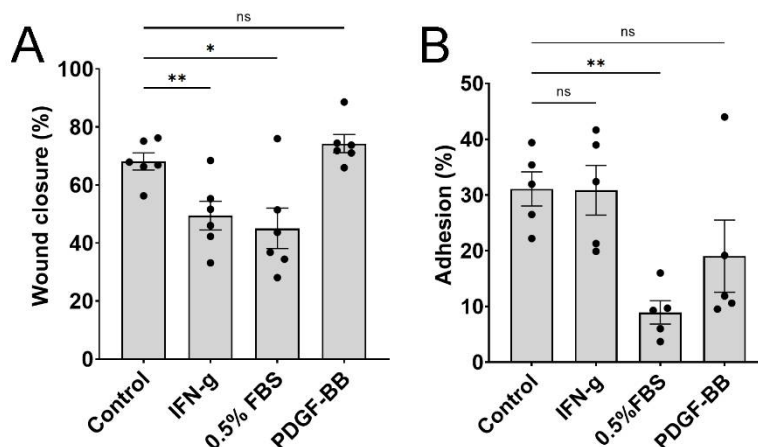
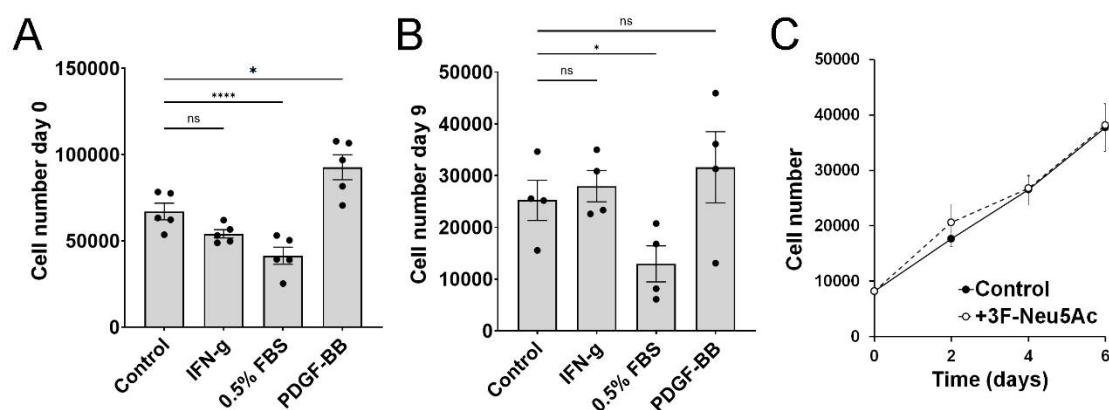


Supplementary Figure S1. IFN- γ and high density increase sialylations of N-glycans in MSCs. (A) MSCs were cultured for 24 hours with various concentrations of IFN- γ and analyzed by flow cytometry to determine sialylations by means of SNA binding ($n = 9$). (B) MSCs were cultured for 48 hours at the indicated cell densities prior to flow cytometry analysis using SNA staining ($n = 4$). * $p < 0.05$; ** $p < 0.005$; *** $p < 0.0005$; **** $p < 0.00005$.



Supplementary Figure S2. Effect of IFN- γ , 0.5% FBS and PDGF-BB on migration and adhesion of MSCs. (A) MSCs pre-treated with the respective conditions were tested in wound/scratch assays to determine effects on cell migration. Here, pre-treatment with IFN- γ or with 0.5% FBS (instead of 10% FBS, Control) significantly reduced wound closure, while PDGF-BB had no significant impact. (B) Adhesion assays of MSCs pre-treated as in A. Here, only 0.5% FBS significantly affected cell adhesion by reducing it. ns: not significant; * $p < 0.05$; ** $p < 0.005$, as determined using 1-way ANOVA and post hoc Tukey test.



Supplementary Figure S3. Effect of IFN- γ , 0.5% FBS, and PDGF-BB on proliferation and survival of MSCs and effect of 3F-Neu5Ac on cell proliferation. (A) Cells were pre-treated for 48 hours under the indicated conditions. Then (time 0), cells were lifted and counted ($n = 5$). (B) Cells were treated as in A, but at time 0, medium was changed to serum-free media and cells were transferred to an hypoxic incubator (1% Oxygen), without further medium changes. After 9 days, the remaining cells were lifted and counted ($n = 4$). (C) Cell proliferation assay of cells treated with or without 3F-Neu5Ac (50 μ M). At each time point, cells (plated in triplicate) were lifted and counted using hemocytometer and trypan blue exclusion dye ($n = 4$). ns: not significant; * $p < 0.05$; **** $p < 0.00005$.