

**Supplementary Figure 2, related to Figure 2** Continued on next page.

## Supplementary Figure 2, related to Figure 2

(A) qPCR for the indicated transcripts in PSCs cultured in normoxia or hypoxia in the presence or absence of cytokines (IL1/TNF $\alpha$ ) for 48h. N=3 biological replicates. Data represent mean+SD. P-values were calculated by one-way ANOVA. (B-D) Controls for MEMIC experiments shown in Figure 2F-I. PSCs expressing HRE-dUnaG (B) or IL6-EGFP and  $\alpha$ SMA-DsRed (C) were cultured in the MEMIC without a cover (no gradients) for 48h. (D) Quantification of median fluorescence intensity (MFI) with increasing distance from the oxygen-rich opening. A.U. = arbitrary units, px = pixel. (E, F) MEMIC experiments with IL6 reporter. (E) Cells were fixed and stained for GFP (IL6). Nuclei are labeled with DAPI. Scale bar = 500  $\mu$ M. Oxygen-rich (E') and oxygen-poor (E'') regions are highlighted. Scale bar = 100  $\mu$ M. (F) Quantification of GFP (IL6) fluorescence intensity per cell with increasing distance from the oxygen-rich opening. A.U. = arbitrary units. N=15,027 nuclei. Line represents median. P-value was calculated by Pearson's Linear Correlation Coefficient. (G-J) PSC/Tumor organoid co-culture experiment. PSCs expressing IL6-EGFP and  $\alpha$ SMA-DsRed were cultured alone or together with KPC organoids for five days. (G) Histogram of IL6-EGFP fluorescence intensity in PSCs. (H) Quantification of the relative MFI of IL6-EGFP in PSCs. (I) Histogram of  $\alpha$ SMA-DsRed fluorescence intensity in PSCs. (J) Quantification of the relative MFI of  $\alpha$ SMA-DsRed in PSCs. N=3 biological replicates. Data represent mean+SD. P-values were calculated by Student's t-test.