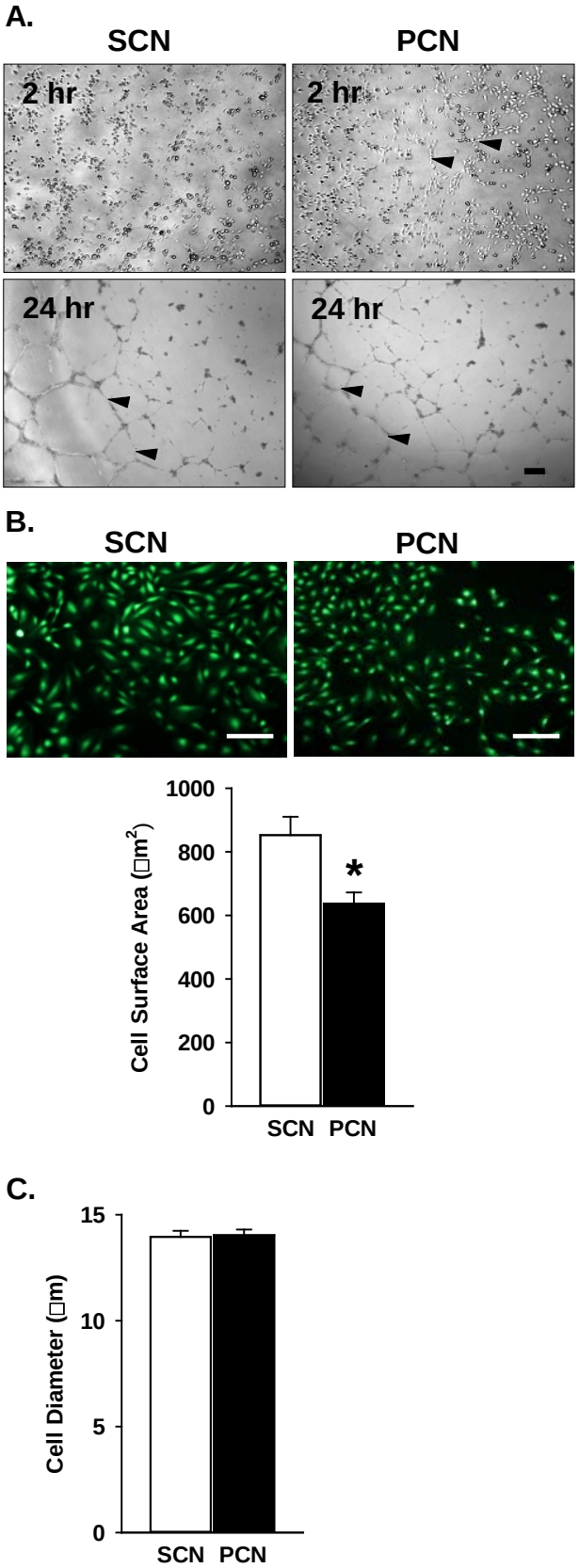

Fig. S1. Characterization of SCN- and PCN-HUAECs. (A) Formation of capillary-like tube structure. Cells seeded on Matrigel coated plates were cultured in media containing 10% FBS. Images were taken at 2 and 24 hr. Arrowheads indicate capillary-like tube structures. (B) Attached cells. Attached cells were loaded with Cell Tracker Green 5-chloromethylfluorescein diacetate. (C) Quantification of cell surface areas and diameters. For cell surface areas, images were taken and the surface area of individual cells attached was quantified by the MetaMorph software. For diameters of suspended cells, cells were stained with trypan blue and loaded to an automated cell counter to determine the cell diameters. Data are expressed as means ± SEM for each individual cell. *Differ ($p \leq 0.05$, n > 700 cells from at lest 5 cell preparations) from SCN. Bar = 200 μm.

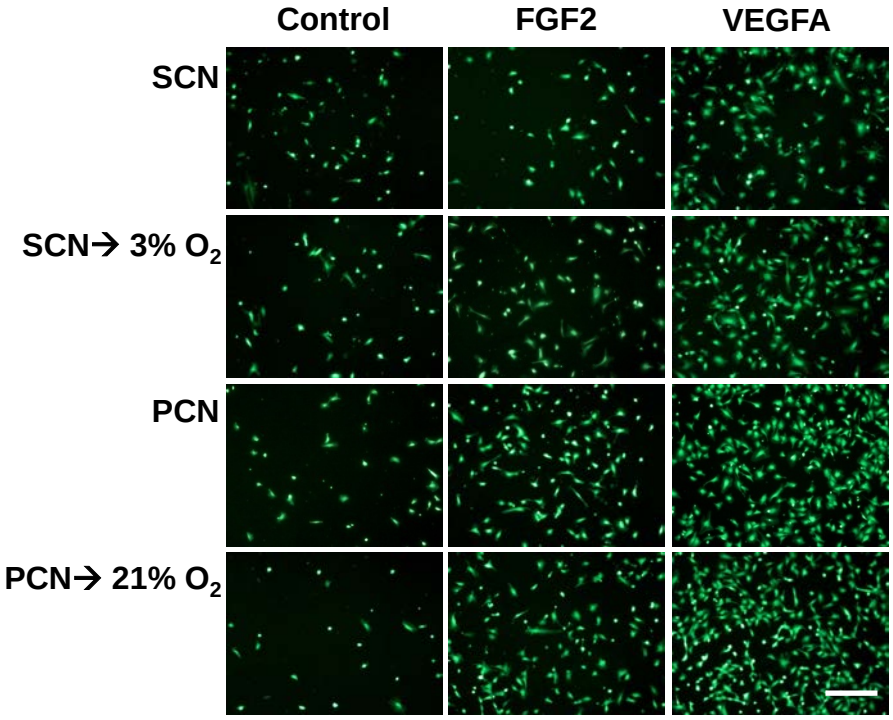

Fig. S2. HUAECs migration in response to FGF2 and VEGFA. SCN- and PCN-cells were cultured in 21% and 3% O_2 or reversely incubated in 3% and 21% O_2 for 24 hr. Cell migration was evaluated using FluoroBlok transwell insert system. After 8 hr of serum starvation, cells were seeded into inserts, followed by adding FGF2 or VEGFA in the bottom wells. After 16 hr of incubation, calceinacetoxymethyl ester was added to the bottom wells to stain migrated cells. Representative images of migrated cells are shown. Bar = 200 μm.