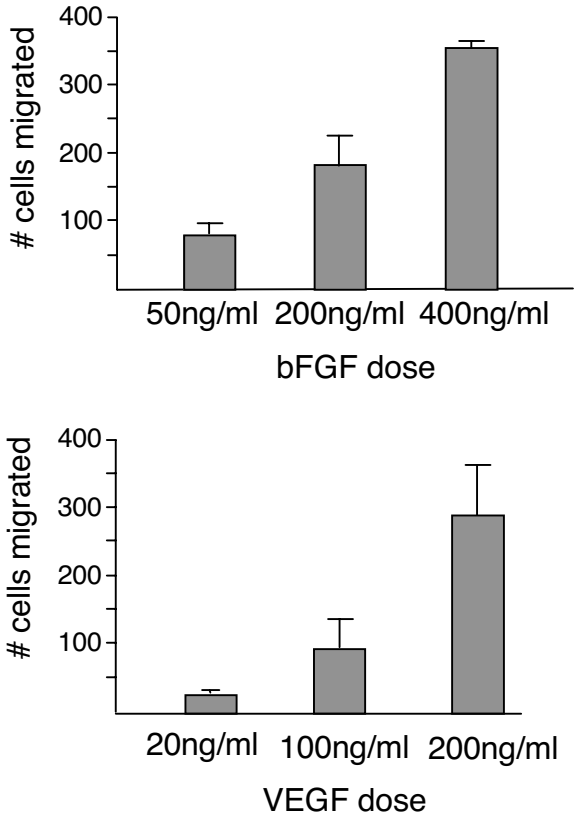
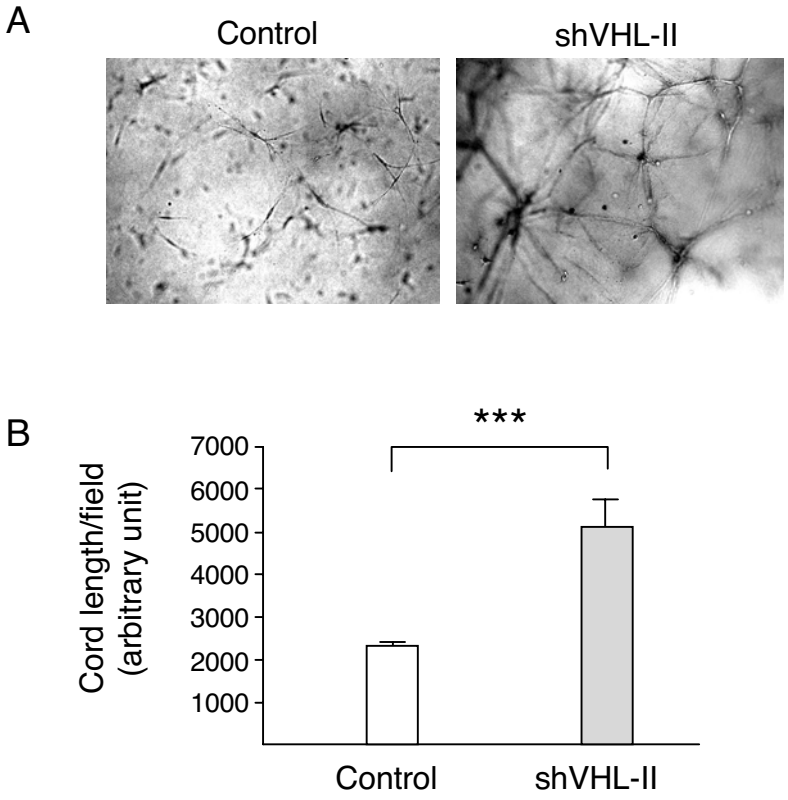
Supplemental Figure S1. Champion et al.



Supplemental Figure S1. Transwell migration assay: bFGF and VEGF dosage response

The migration of *VHL* knockdown HMVECs was measured using transwell migration assay performed over a range of doses of bFGF (50 ng/ml – 400 ng/ml) and VEGF (20 ng/ml – 200 ng/ml) added to the bottom chamber as described in Methods. Optimal dosages (400 ng/ml bFGF and 200 ng/ml VEGF) were chosen for the assays shown in Figure 1C. n=3.

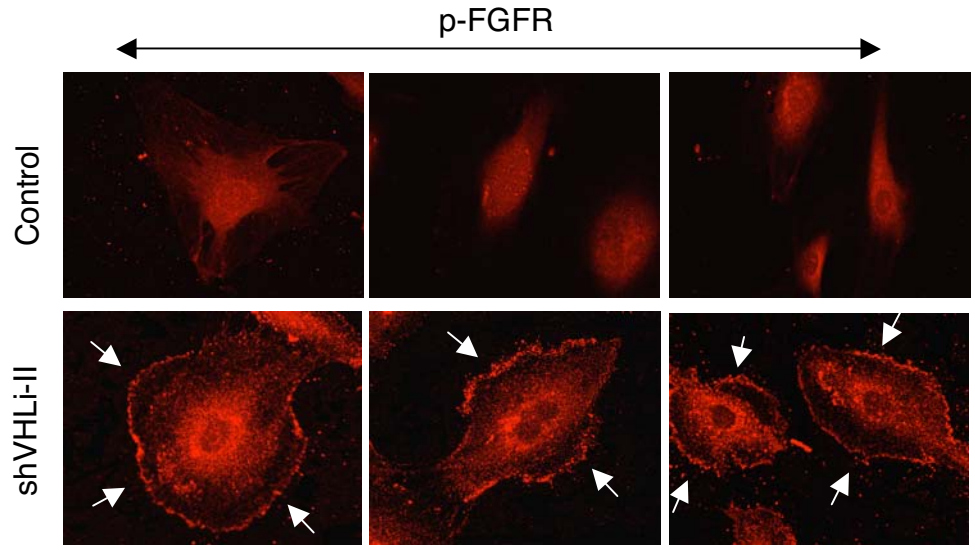
Supplemental Figure S2. Champion et al.



Supplemental Figure S2. The observed increase in cord formation by *VHL* knockdown HMVECs was verified using a second *VHL* shRNA construct, *VHL* shRNA II.

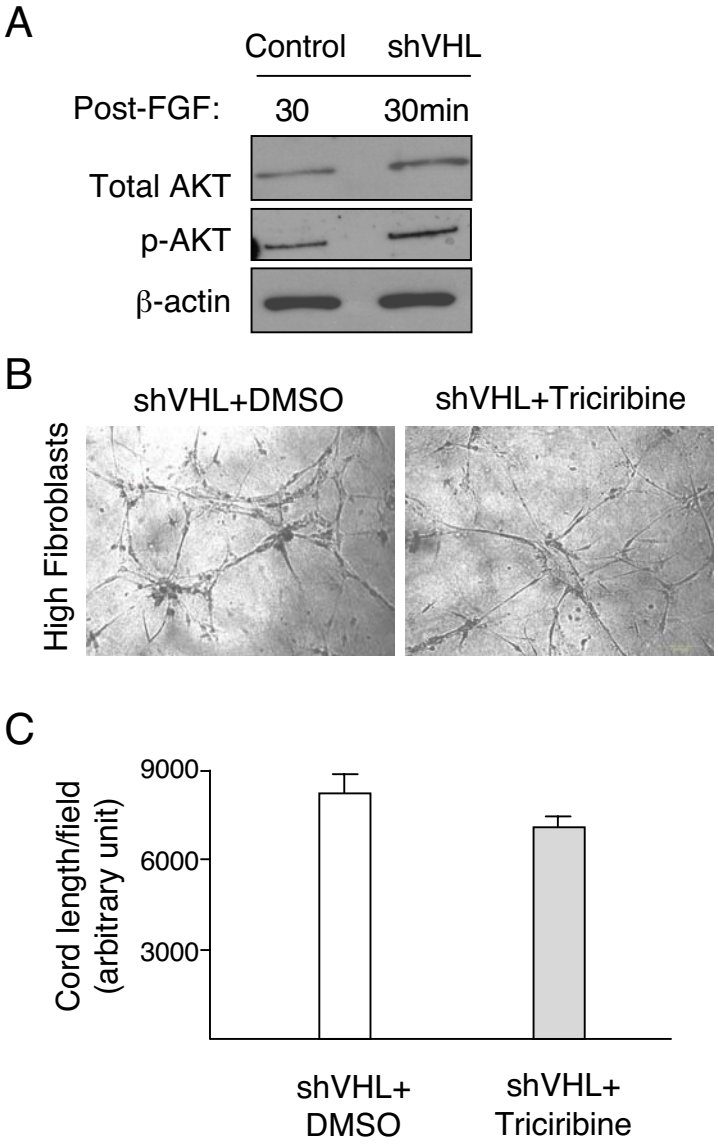
(A-B) Cord formation by control and *VHL* knockdown HMVECs co-cultured with optimal amount of fibroblasts. Representative images of 3D cord formation by control and *VHL* knockdown HMVECs (shVHL-II) are shown in (A). Quantification of cord formation as described in Figure 1 is shown in (B). Statistical analysis was done using Student's *t*-test (n=6). ***: $p \leq 0.001$.

Supplemental Figure S3. Champion et al.



Supplemental Figure S3. Surface accumulation of FGFR in *VHL* knockdown HMVECs was verified using a second *VHL* shRNA construct, *VHL* shRNA II
HMVECs were incubated in the presence of bFGF and heparin. Representative images of activated FGFR (p-FGFR) immunostaining in control and *VHL* knockdown HMVECs (shVHL) are shown. High levels of surface accumulation of p-FGFR (arrows) are observed in *VHL* knockdown HMVECs (shVHL-II) but not in control cells.

Supplemental Figure S4. Champion et al.



Supplemental Figure S4. AKT pathway is unaffected in *VHL* knockdown HMVECs

(A)AKT activation in control and *VHL* knockdown (shVHL) cells stimulated with bFGF and heparin and chased for 30 min as described in Figure 2c. AKT activation was measured by the levels of phosphorylated AKT (p-AKT). Total AKT and β-actin were used as loading controls.

(B-C) Treatment of *VHL* knockdown HMVECs (shVHL) with 10 μM AKT inhibitor V, Triciribine, does not significantly reduce cord formation in 3D co-culture assay. Representative images of *VHL* knockdown HMVECs (shVHL) treated with DMSO for control or AKT inhibitor V, Triciribine, are shown in (B). Quantification of cord formation as described in Figure 1 is shown in (C). Statistical analysis was done using Student's *t*-test (n=3).