of kymograph traces of VEGF-stimulated cells under DMSO vs CCG-1423 (5 M) treatment. **C**) Representative immunoblots of HmVEC extracts for VASP, ArpC2, Pfn1, and GAPDH (loading control) at various concentrations of CCG-1423 treatment (the numbers indicate the expression level relative to DMSO control averaged from 2 independent experiments). HmVEC lysates were prepared at the same time-point as the end-point cord formation or cell motility assay.

**Figure 4**. *Pfn1 depletion inhibits angiogenic sprouting of EC*. **A)** Pfn1 and tubulin (loading control) immunoblots HmVEC extracts 5 days after transfection with control or Pfn1 siRNA (5-day represents the end time-point of the parallel EC spheroid assay). **B-C**) Representative images (*panel B*) and quantification (*panel C*) of EC spheroid sprouting following treatment with either control of Pfn1 siRNA after 5 days (\*\* p < .01). **D-E**) Representative images (*panel D*) and quantification (*panel E*) of aortic ring sprouting angiogenesis (in collagen-1) following treatment of aortic rings with either control or Pfn1-specific siRNA after 120 hours (vessels are identified by FITC lectin staining) (\*\* p < 0.01; N indicates the number of independent experiments; in each experiment, aortic segments prepared from 1-2 mice was randomly distributed between the two groups). **F)** Genotyping confirmation of Pfn1<sup>+/-[EC]</sup> mice (Tie2-Cre-mediated excision of floxed Pfn1 allele gives rise to a 700 bp knockout (KO) band in EC; EC were harvested from aortic segments). **G-H)** Representative images (*panel G*) and quantification (*panel H*) of sprouting angiogenesis in matrigel from WT vs Pfn1<sup>+/-[EC]</sup> aortic segments (N: number of mice for each genotype; \*:p<0.05).

Supplemental Figure S1. Live/dead staining of HmVEC after treatment with either DMSO or CCG-1423 (10 M). Green depicts live cells and red (arrow) shows dead cells.

**Supplemental Figure S2**. Lectin and Pfn1 immunostaining of aortic rings treated with either control or Pfn1 siRNA (note that Pfn1-siRNA treated rings show an overall weaker staining Pfn1; white and yellow arrowheads depict sprouts with undetectable and intermediate levels of Pfn1).

## Gau et al. Supplementary Fig S1

