**Supplementary Figure 1** Hydronephrosis, cyst formation and urothelial hyperplasia.

(A-D) Histological appearance of longitudinal midline sections of kidneys from 11 week-old WT, VhlhΔ/Δ, PtenΔ/Δ and VhlhΔ/Δ PtenΔ/Δ mice.

(E-H) The urothelium of the renal pelvis is indicated by lines with double arrowheads. Bar = 50 µm