Supplemental Fig. S1 Deletion of *p300* alone in renin cells does not alter renin expression in adult kidneys. Immunostaining for renin in $p300^{fl/fl}$; $Ren^{cre/+}$ kidney shows normal staining in JG areas.

Supplemental Fig. S2. Vascular abnormalities in mice with combined homozygous deletion of *CBP* and *p300* in cells of the renin lineage. Immunostaining for α-SMA: A and B) Normal pattern of α-SMA expression in the vasculature of control *CBP* and *p300* floxed animals. C and D) Double homozygous deletion mice ($CBP^{fl/fl}$; $p300^{fl/fl}$; $Ren^{cre/+}$) show interstitial peritubular and periglomerular expression of α-SMA in addition to distorted vessels within the fibrotic areas. E and F) Triple homozygous mice ($CBP^{fl/fl}$; $p300^{fl/fl}$; $Ren^{cre/cre}$) show a further distortion of the vasculature and cystic dilatations of tubuli and glomeruli. Arterioles are thinner in double and triple homozygous kidneys compared to controls and they also show periglomerular and intraglomerular expression of α-SMA as an indicator of glomerular fibrosis.

Supplemental Fig. S3. Cortical and medullary abnormalities in double homozygous deletion mice. PAS staining of kidney tissue. A) Cortical area with tubular dilatations, hypercellular glomeruli and disorganized presence of cells in the interstitium. B) massive tubular dilatation and casts in this cut through the medullary region. C) glomerulus with excess number of epithelial cells in Bowman's capsule (small arrow). The afferent arteriole, although less affected is also thin (big arrow). D) epithelial cells of Bowman's capsule show multiple layers of cells at the beginning of the proximal tubule (small arrow), the glomerulus is surounded by several layers of interstitial cells and many tubules are dilated containing casts. E) in addition to the disorganized presence of cells , tubular dilatation and casts, a central vessel is shown. The vessel is thin along its trajectory containing multiple layers of cells without clear muscle demarcation (big

arrow). F) Some less affected proximal tubules are surounded by disorganized interstitial cells with large nuclei and multiple nucleoli and by an artery showing perivascular fibroplasia (big arrow).

Supplemental Fig. S4. Concomitant *CBP* and *p300* deletion in cells of the renin lineage results in glomerular, tubular and vascular abnormalities. Nuclear staining with hematoxylin: A and E) double homozygous deletion mice ($CBP^{fl/fl}$;$p300^{fl/fl}$; $Ren^{cre/+}$), B, C, D, F and G) triple homozygous deletion mice ($CBP^{fl/fl}$;$p300^{fl/fl}$; $Ren^{cre/cre}$). Cells with multiple nuclei are seen mostly in tubular structures in both double (A) and triple (B-D) homozygous mice (arrows). Cystic collapsed glomeruli are also present in both deletion groups (E and F). G). Artery of triple homozygous mouse kidney showing perivascular fibroplasia (arrowhead) and a perivascular infiltrate (asterisk).