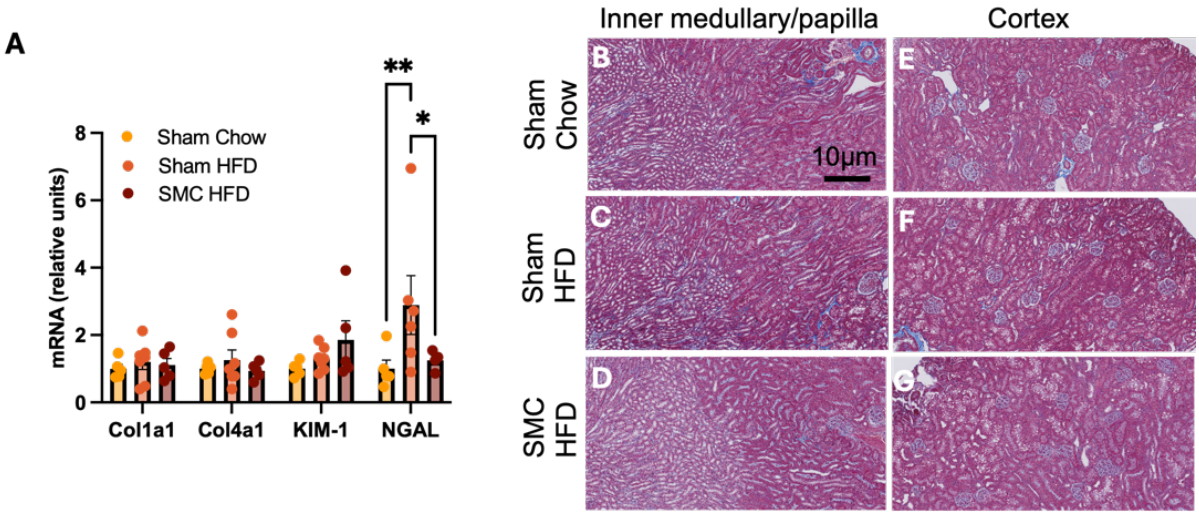
Supplemental Table 1: List of primers and their sequences

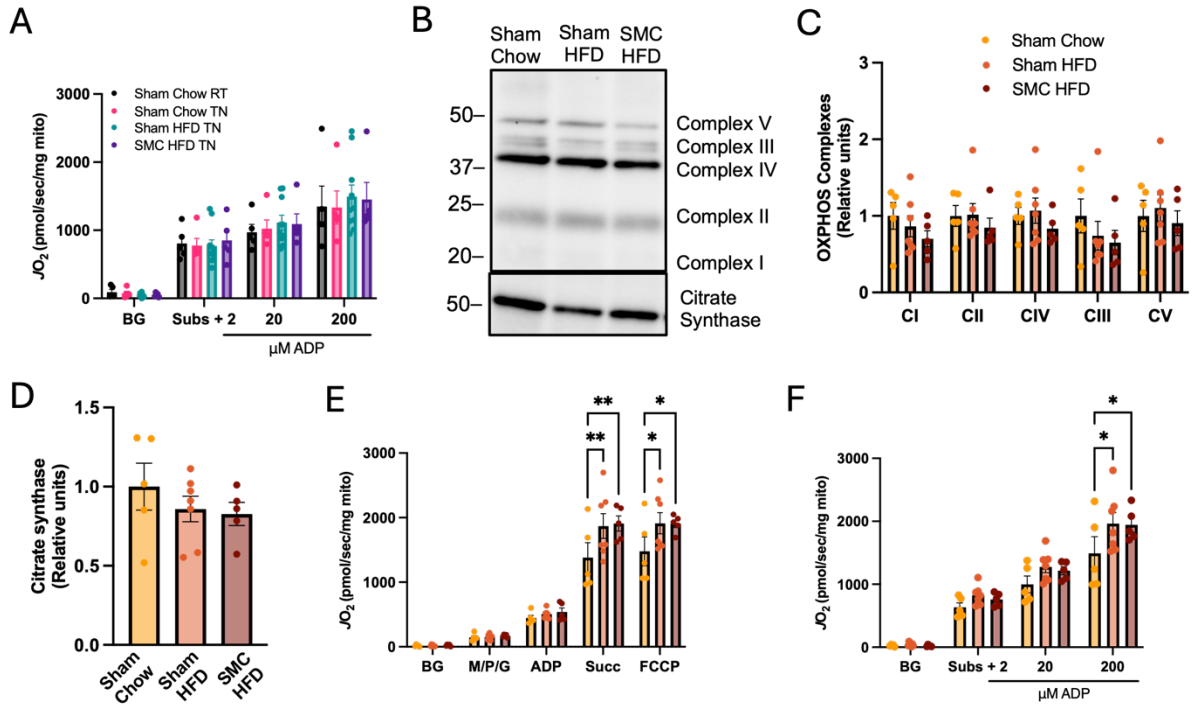
NGAL	Fwd-CACTGACTACGACCAGTTTGCC	Rev-GATGTTGTTATCCTTGAGGCCC
Col1a1	Fwd-CCTCAGGGTATTGCTGGACAAC,	Rev-CAGAAGGACCTTGTTTGCCAGG
Col4a1	Fwd-ATGGCTTGCCTGGAGAGATAGG,	Rev-TGGTTGCCCTTTGAGTCCTGGA
KIM-1	Fwd-CTGGAATGGCACTGTGACATCC	Rev-GCAGATGCCAACATAGAAGCCC

Supplemental Figure 1



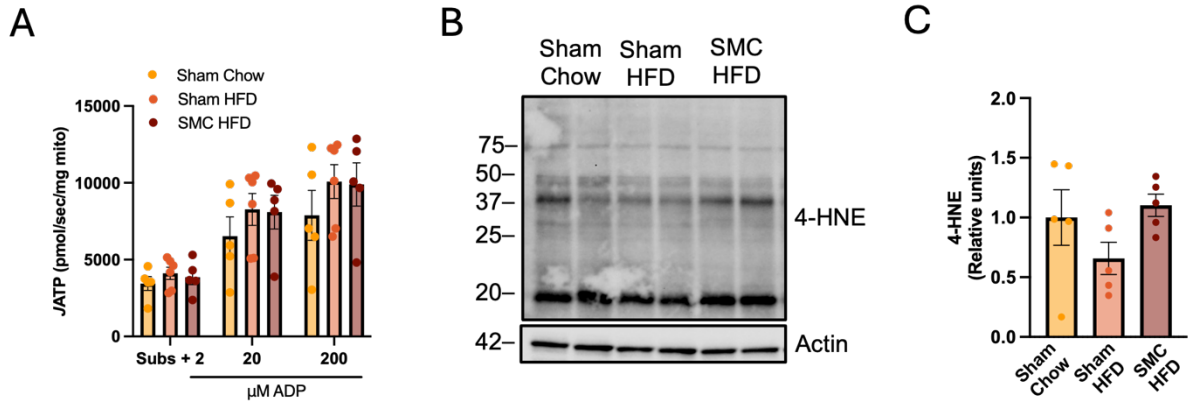
Combined SMC and HFD intervention induces mild kidney fibrosis. (A) Kidney damage markers: collagen I & IV, kidney injury marker-1 (KIM1), and neutrophil gelatinase-associated lipocalin (NGAL) relative expression. Trichrome-stained kidney inner medullary/papilla (B-D) and cortex (E-G) sections from sham and SMC mice fed chow or HFD housed at room temperature. P value =0.05 (P value *<0.05, ** <0.005, *** <0.0005). Images are representative of n=5-10 per group. Magnification at 20x zoomed using Zeiss AxioScan.Z1 slide scanner. HFD – High-fat Diet; SMC – Small mouse cage; RT – Room temperature.

Supplemental Figure 2



Mitochondrial bioenergetic phenotyping in kidney. (A) O_2 utilization with ADP titrations (TN), (B) Western blots, and (C) quantifications for OXPHOS complexes I - V and (D) citrate synthase in whole kidney lysate. (E) O_2 utilization using enriched kidney mitochondria fraction with glycolytic substrates (2 mM ADP, 0.5 mM malate, 5 mM pyruvate, 10 mM succinate, 1 µM carbonyl cyanide-*p*-trifluoromethoxyphenylhydrazone (FCCP) and (F) O_2 utilization with ADP titrations (RT). n=5-10 per group. HFD – High-fat Diet; SMC – Small mouse cage; RT – Room temperature; TN – Thermoneutrality.

Supplemental Figure 3



Mitochondrial ATP production and electron leak. (A) ATP production with ADP titrations using enriched kidney mitochondria fraction. (B) Western blots and (C) quantification for 4-hydroxynonenal (4-HNE) and actin in whole kidney lysate of sham and SMC mice at room temperature, n=5-10 per group. HFD – High-fat Diet; SMC – Small mouse cage; RT – Room temperature; ADP- Adenosine 5'-diphosphate.