

Supplemental Figure 1. Histological analysis of kidneys at the extremes of the 15-week ACR distribution in the males. PAS staining of kidney sections shows normal histology in animals with the lowest ACR (A and B), and mesangial matrix expansion, protein casts (p), and immune cell infiltration (i) in the animals with the highest ACR (C and D).

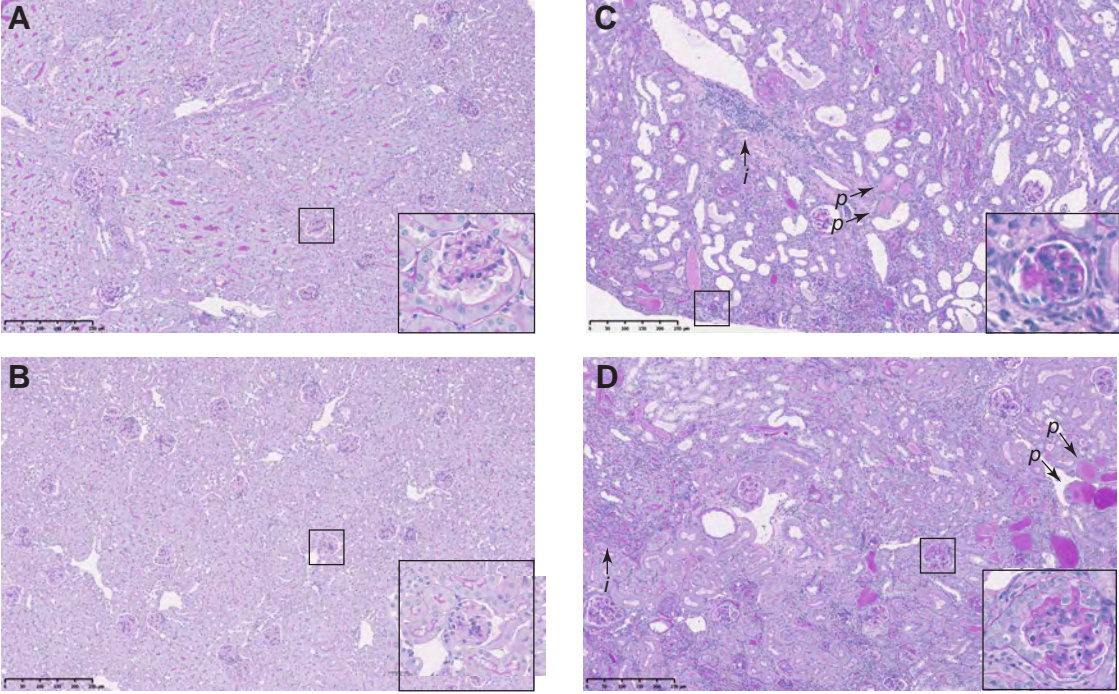
Supplemental Figure 2. Allele effects of the *Xce* locus in females. Animals with an *Xce^c* allele have higher at 14 weeks of age compared with animals with an *Xce^b* allele ($p=0.02$)

Supplemental Figure 3. Correlation of gene expression with ACR and GFR (A) and pathway enrichment using Ingenuity Pathway Analysis (B).

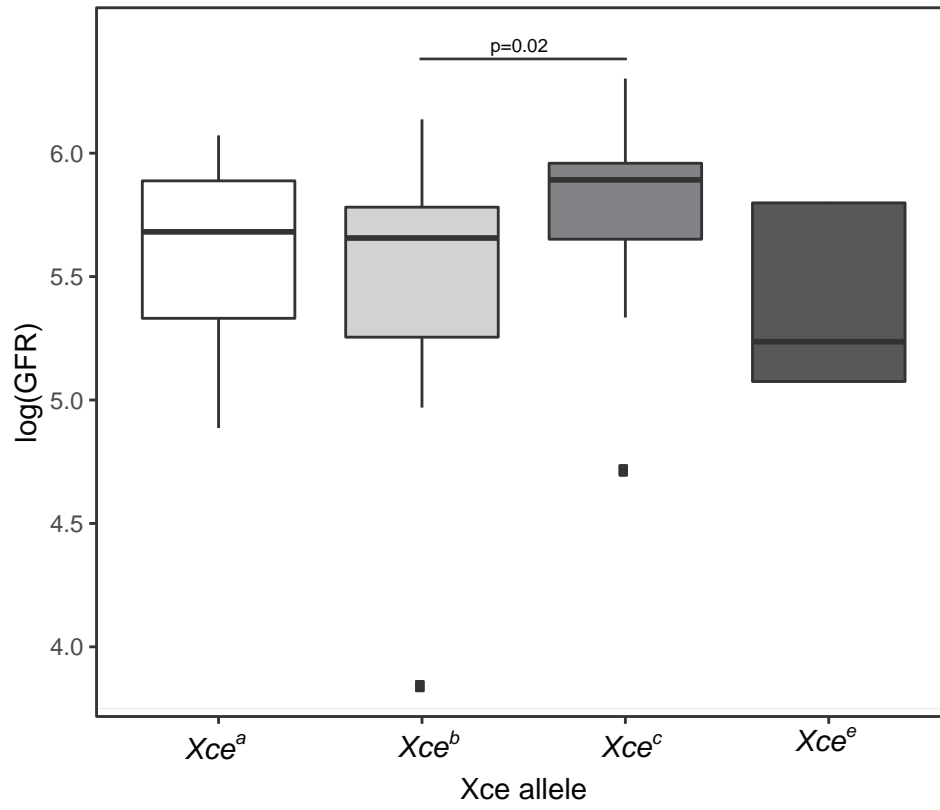
Supplemental Figure 4. Bayesian estimated interval on Chr19 associated with GFR.

Supplemental Figure 5. Bayesian estimated interval on Chr2 associated with ACR.

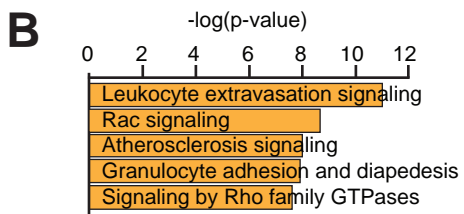
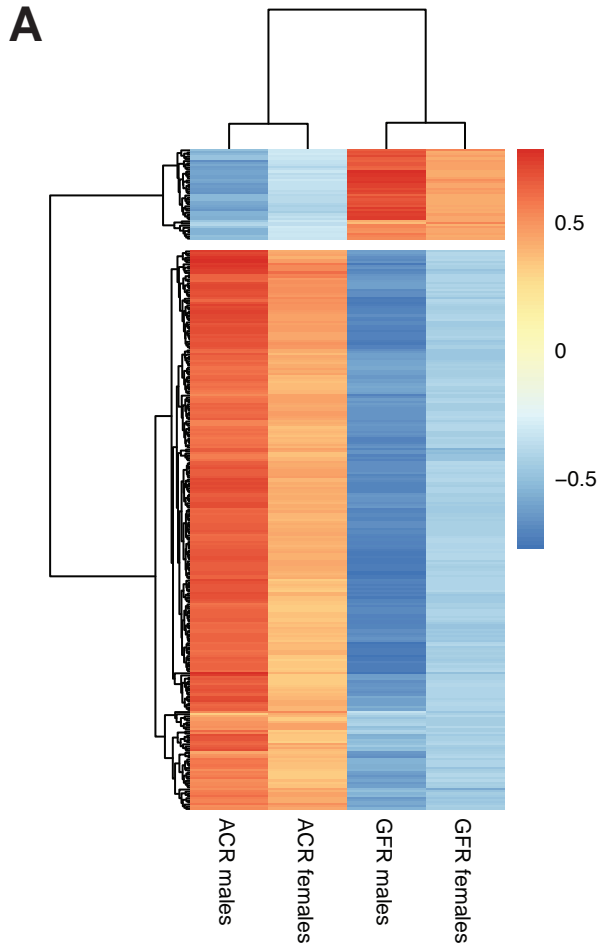
Supplemental Figure 1



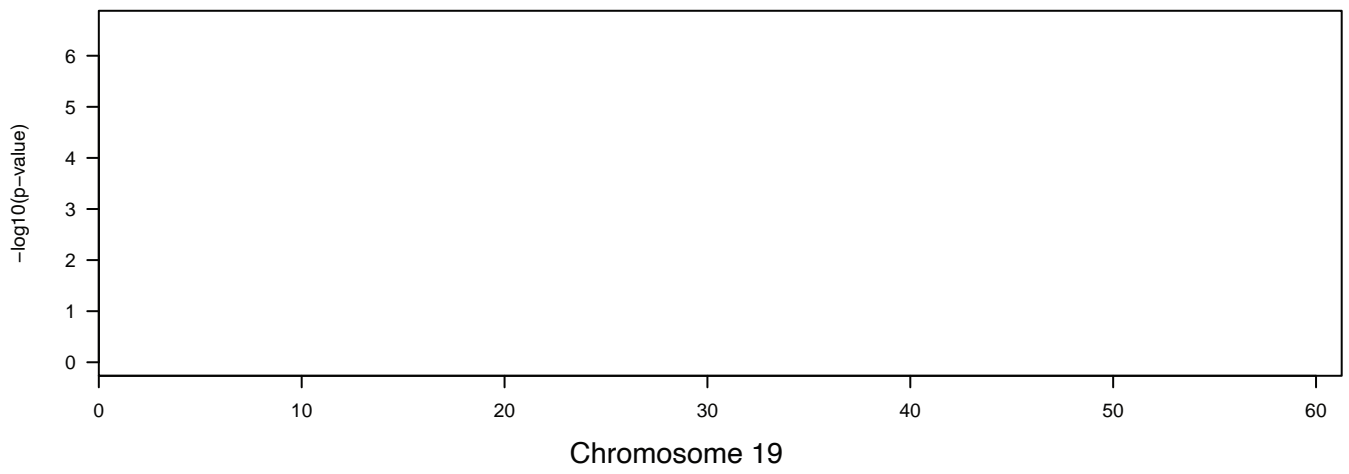
Supplemental Figure 2



Supplemental Figure 3



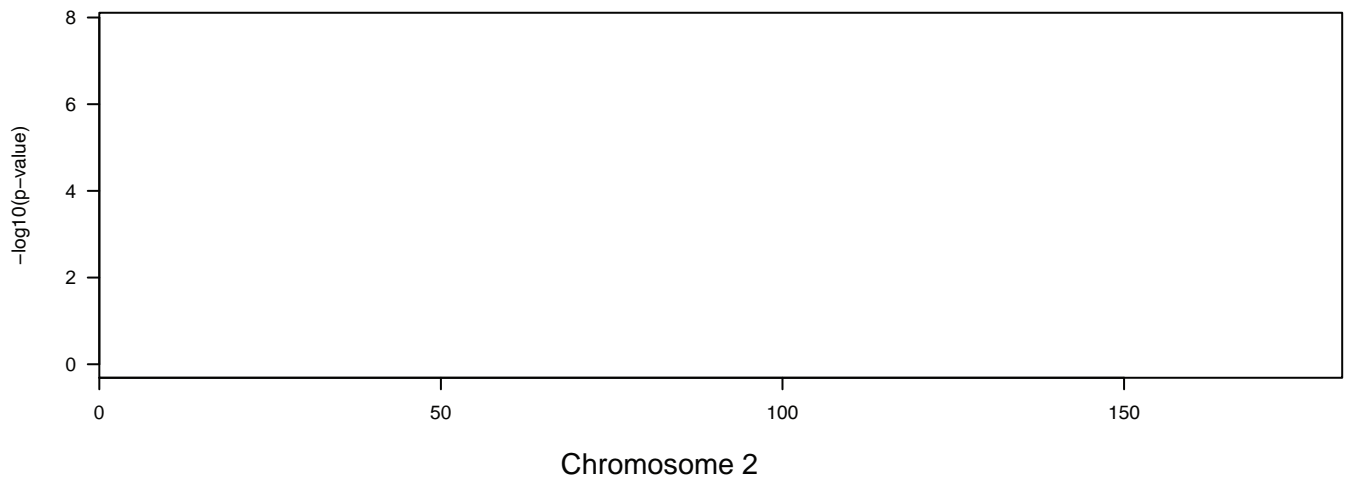
Supplemental Figure 4



95% confidence interval

	marker	Mb	LOD	p-value
Start	UNC30136851	26.98	6.04	2.36×10^{-4}
Peak	JAX00474835	27.61	7.59	1.38×10^{-5}
End	UNCHS047487	28.04	4.85	2.21×10^{-3}

Supplemental Figure 5



95% confidence interval

	marker	Mb	LOD	p-value
Start	UNCHS005963	101.74	4.43	0.00477
Peak	JAX00098817	113.42	6.30	0.00014
End	UNC3776734	113.67	4.45	0.00458