

## **Supplementary materials**

### **Supplementary figures**

Figure S1. The protein expression of BNP, TGF- $\beta$  and COL1A in the cardiac of (Rbp4[KI/KI],Ttr [KI/KI]) mice.

Figure S2. The protein expression of BNP, TGF- $\beta$  and COL1A in the cardiac of (Rbp4[KI/KI],Ttr\_V50M[KI/KI]) mice.

Figure S3. The protein expression of TTR monomer in the liver of (Rbp4[KI/KI],Ttr [KI/KI]) mice.

Figure S4. The protein expression of TTR monomer in the liver of (Rbp4[KI/KI],Ttr\_V50M[KI/KI]) mice.

### **Supplementary tables**

Table S1. Summarization of study results regarding different outcomes.

Figure S1. The protein levels of BNP, TGF- $\beta$  and COL1A in (Rbp4[KI/KI],Ttr [KI/KI]) mice heart.

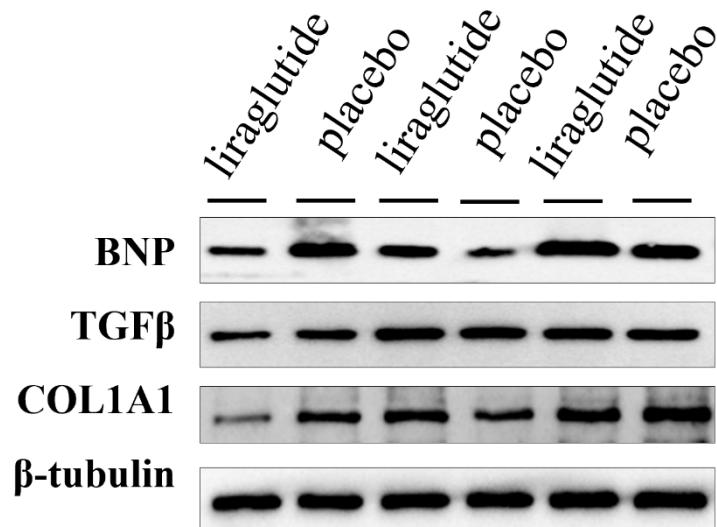


Figure legends: Western blots characterizing the protein levels of BNP, TGF- $\beta$  and COL1A in the cardiac of (Rbp4[KI/KI],Ttr [KI/KI]) mice.

Figure S2. The protein levels of BNP, TGF- $\beta$  and COL1A in the cardiac of (Rbp4[KI/KI],Ttr\_V50M[KI/KI]) mice.

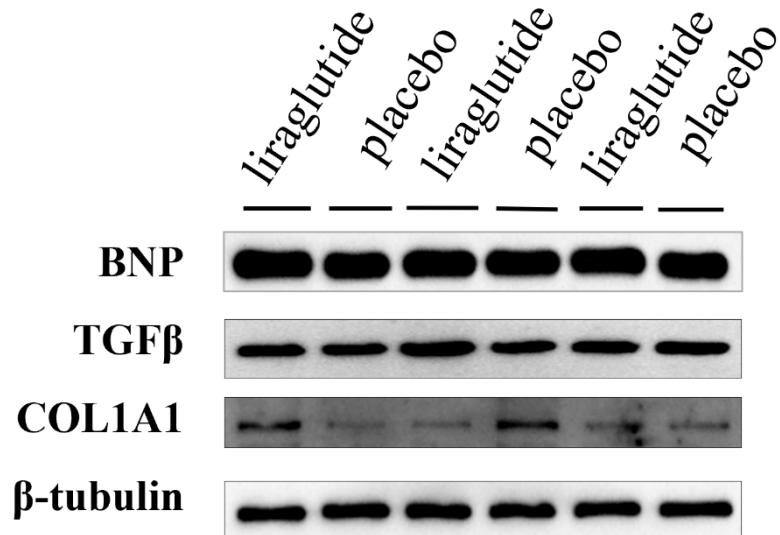


Figure legends: Western blots characterizing the protein levels of BNP, TGF- $\beta$  and COL1A in the cardiac of (Rbp4[KI/KI],Ttr\_V50M[KI/KI]) mice.

Figure S3. The protein levels of TTR monomer in the liver of (Rbp4[KI/KI],Ttr [KI/KI]) mice.

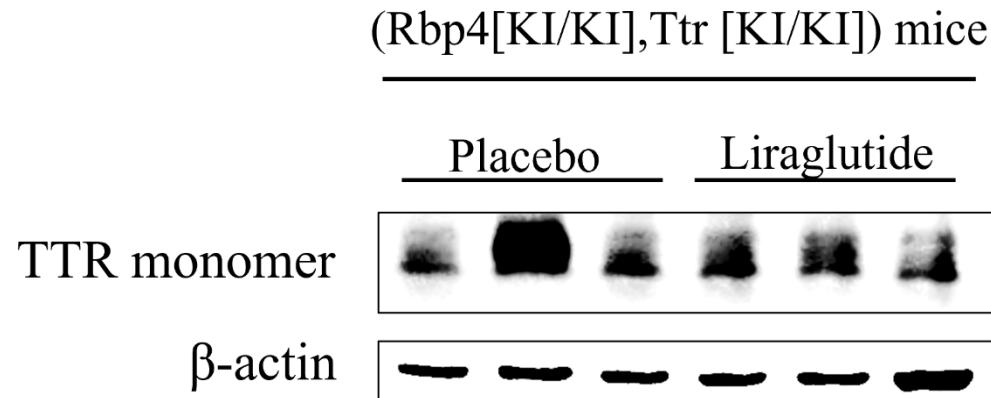


Figure legends: Western blots characterizing the protein levels of TTR monomer in the liver of (Rbp4[KI/KI],Ttr [KI/KI]) mice.

Figure S4. The protein expression of TTR monomer in the liver of (Rbp4[KI/KI],Ttr V50M[KI/KI]) mice.

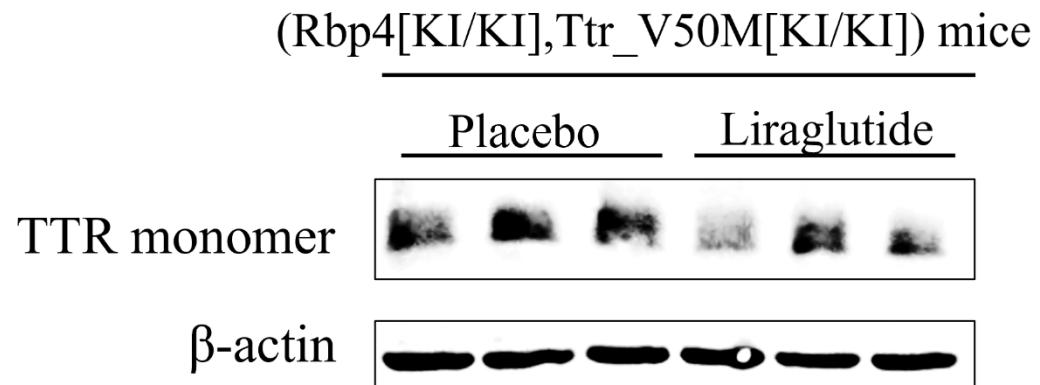


Figure legends: Western blots characterizing the protein levels of TTR monomer in the liver of (Rbp4[KI/KI],Ttr V50M[KI/KI]) mice.

Table S1. Summarization of study results regarding different outcomes

<b>Outcome measurements</b>	<b>Liraglutide treated arms</b>	<b>Placebo treated arms</b>	<b>P values</b>
Liraglutide treatment versus placebo treatment in mice with (Rbp4[KI/KI],Ttr[p.V50M][KI/KI]) genotype			
Weight D0 (g)	24.77 ± 2.06	25.23 ± 1.48	0.66
Weight D9	26.07 ± 2.78	27.10 ± 2.56	0.52
Weight D16	26.38 ± 2.04	27.40 ± 2.89	0.50
Weight D23	26.95 ± 2.10	27.58 ± 2.37	0.64
Weight D29	24.68 ± 2.05	25.50 ± 2.10	0.51
Weight change from baseline (D16)	1.62 ± 1.35	2.17 ± 2.70	0.67
Weight change from baseline (D29)	-0.083 ± 1.59	0.27 ± 1.72	0.72
Fasting blood glucose D0 (mmol/L)	6.65 ± 1.19	6.57 ± 0.50	0.88
Fasting blood glucose D16	6.55 ± 2.74	6.47 ± 0.88	0.95
Fasting blood glucose D29	5.48 ± 1.49	6.77 ± 1.51	0.17
<b>IPGTT AUC D0 (mmol/L*min)</b>	<b>1778.50 ± 156.14</b>	<b>1603.75 ± 109.88</b>	<b>0.049</b>
IPGTT AUC D16	1253.00 ± 361.49	1402.75 ± 281.87	0.44
IPGTT AUC D29	1649.75 ± 348.22	1773.88 ± 338.76	0.55
Wb BNP/β tubulin	0.76 ± 0.15	1.16 ± 0.40	0.05

	(Rbp4[KI/KI], Ttr[KI/KI]) genotype	(Rbp4[KI/KI],Ttr[p.V50M][KI/KI]) genotype	P values
<b>(Rbp4[KI/KI], Ttr[KI/KI]) versus (Rbp4[KI/KI],Ttr[p.V50M][KI/KI]) in mice treated with placebo</b>			
Weight D0 (g)	24.45 ± 3.16	25.23 ± 1.48	0.60
Weight D9	26.23 ± 2.78	27.10 ± 2.56	0.59
Weight D16	25.75 ± 2.39	27.40 ± 2.89	0.31
Weight D23	25.68 ± 2.16	27.58 ± 2.37	0.18
Weight D29	24.30 ± 2.89	25.50 ± 2.10	0.43
Weight change from baseline (D16)	1.30 ± 1.58	2.17 ± 2.70	0.51

Weight change from baseline (D29)	-0.15 ± 1.53	0.27 ± 1.72	0.67
Fasting blood glucose D0 (mmol/L)	7.40 ± 1.72	6.57 ± 0.50	0.28
Fasting blood glucose D16	7.25 ± 1.98	6.47 ± 0.88	0.40
Fasting blood glucose D29	7.08 ± 1.33	6.77 ± 1.51	0.71
IPGTT AUC D0 (mmol/L*min)	1785.00 ± 373.89	1603.75 ± 109.88	0.28
IPGTT AUC D16	1641.38 ± 296.52	1402.75 ± 281.87	0.18
IPGTT AUC D29	2174.50 ± 344.85	1773.88 ± 338.76	0.07
Wb BNP/β tubulin	0.90 ± 0.23	1.16 ± 0.40	0.21
Wb TGF-β/β tubulin	0.83 ± 0.13	0.90 ± 0.52	0.74
Wb COL1A1/β tubulin	0.45 ± 0.37	0.66 ± 0.63	0.50
ELISA BNP concentration D0 (ng/ml)	74.74 ± 4.42	76.61 ± 1.98	0.37
ELISA BNP concentration D16	66.12 ± 3.91	64.19 ± 5.26	0.49
ELISA BNP concentration D29	70.01 ± 3.04	68.09 ± 5.07	0.44
Right ventricular collagen percentage (%)	0.044 ± 0.039	0.022 ± 0.015	0.39
Ventricular septum thickness (μm)	906.85 ± 324.15	800.96 ± 154.01	0.84
Left ventricular wall thickness (μm)	1013.48 ± 69.83	951.43 ± 221.90	0.58
Left ventricular internal diameter (μm)	1546.00 ± 816.62	1773.54 ± 151.66	0.84