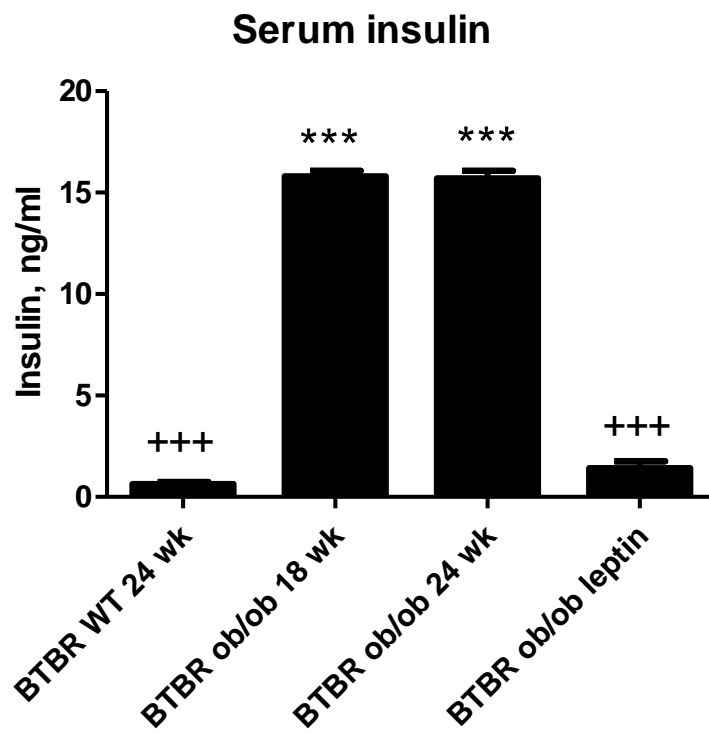


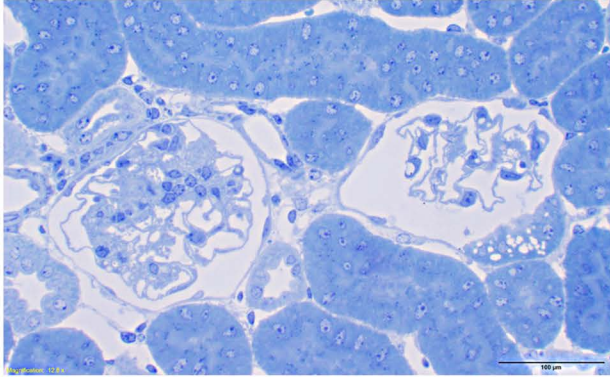
**Supplemental Figure 1. Blood glucose and body weight.** Time course changes in blood glucose and body weight during treatment beginning at 18 weeks and continuing until 24 weeks of age. Body weight and blood glucose levels are elevated in 24 weeks BTBR *ob/ob* control mice and remain elevated in all treatment groups except BTBR *ob/ob* mice with leptin replacement. Leptin replacement decreased body weight and blood glucose levels beginning the first week after starting treatment. \*\*\* $p < 0.001$  vs BTBR *ob/ob* control, BTBR *ob/ob* hydralazine, BTBR *ob/ob* losartan and BTBR *ob/ob* enalapril, +++  $p < 0.001$  vs. BTBR *ob/ob* hydralazine, BTBR *ob/ob* losartan and BTBR *ob/ob* enalapril, #  $p < 0.05$  vs. BTBR *ob/ob* control.



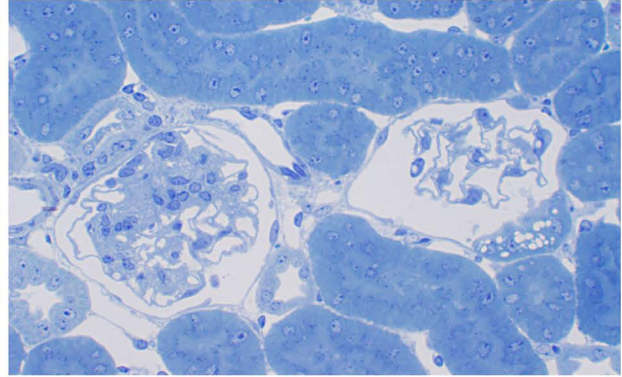
**Supplemental Figure 2.** Serum insulin levels are significantly elevated in BTBR *ob/ob* mice at 18 and 24 weeks compared to WT mice. Leptin replacement reduced serum insulin levels to levels seen in BTBR WT mice. \*\*\*  $p < 0.001$  vs 24 week BTBR WT, +++  $p < 0.001$  vs 18 and 24 week BTBR *ob/ob*.

**BTBR ob/ob 1 micron**

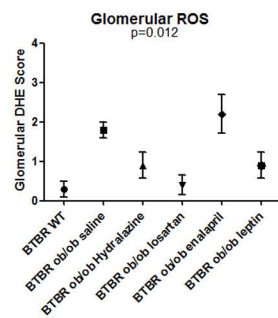
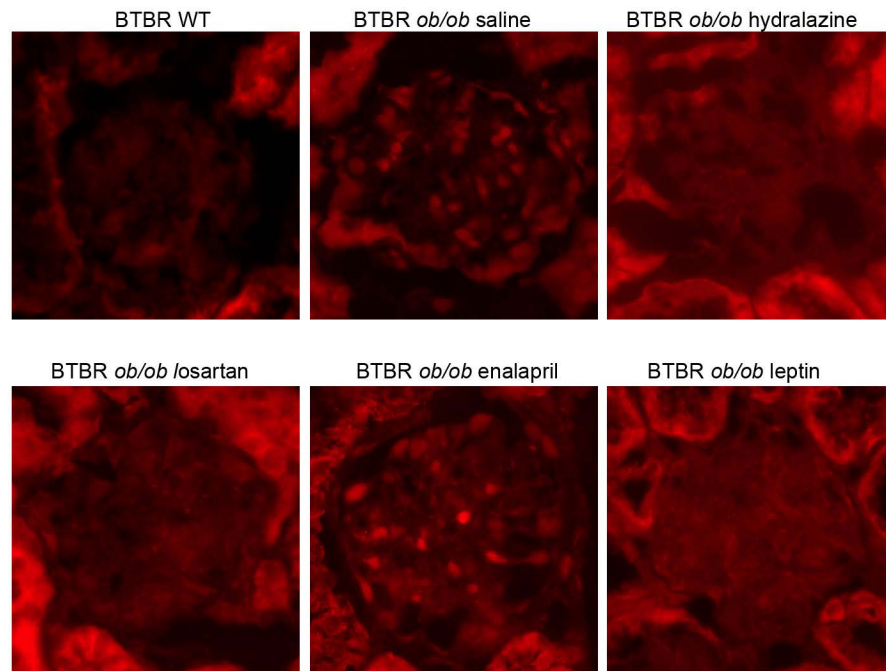
**Serial Section 1**



**Serial Section 2**

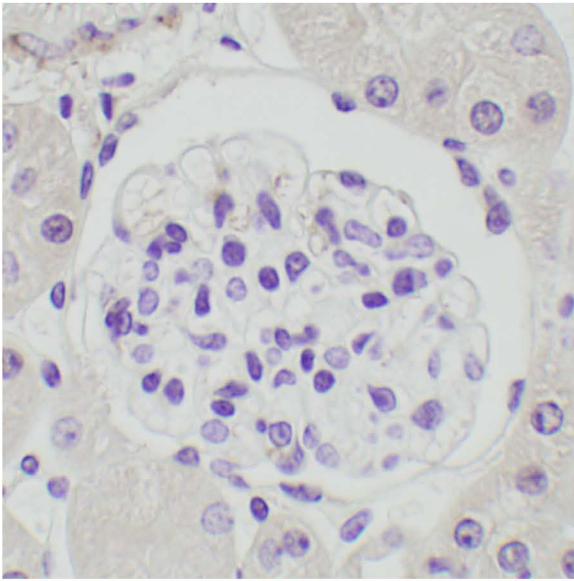


Pichaiwong et al  
Supplemental Figure 3

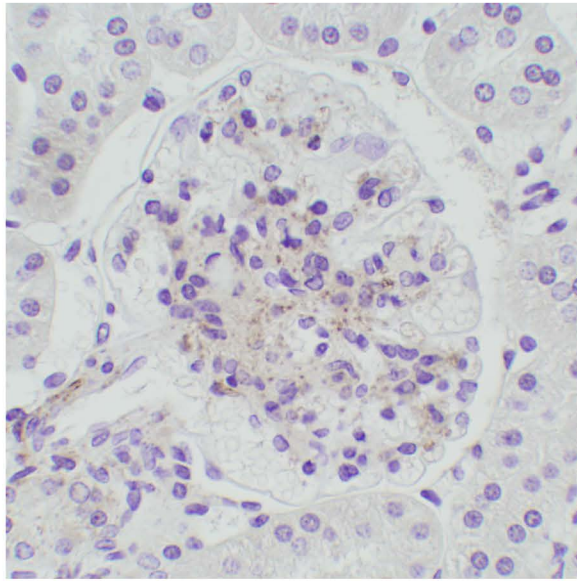


Pichaiwong et al.  
Supplemental Figure 4

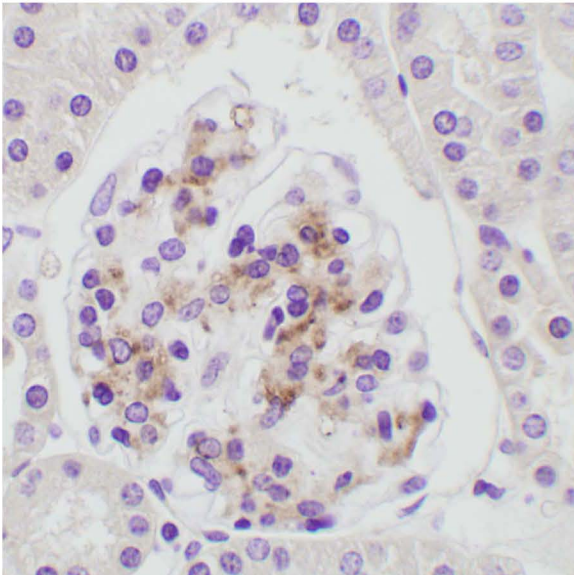
BTBR WT 20 week



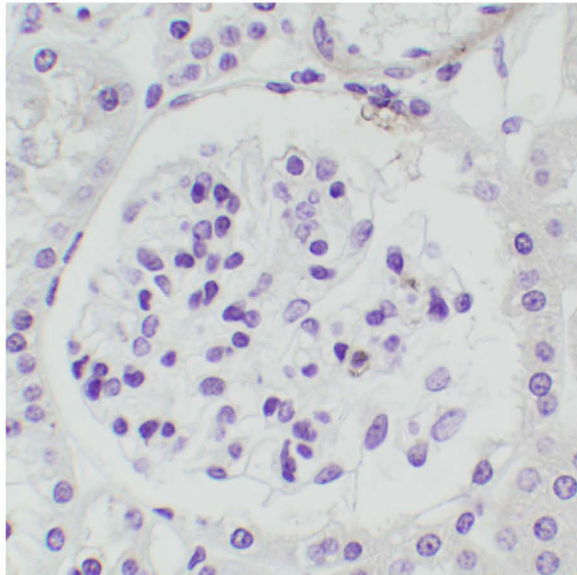
BTBR *ob/ob* 20 week



BTBR *ob/ob* saline 28 week

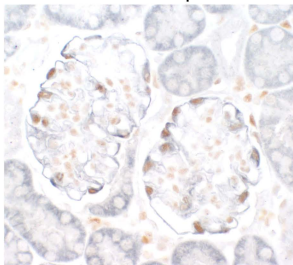


BTBR *ob/ob* leptin 28 week

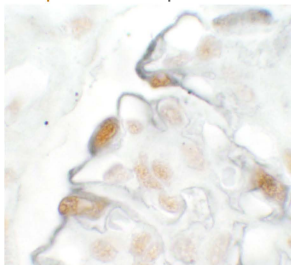


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Supplemental Figure 5.

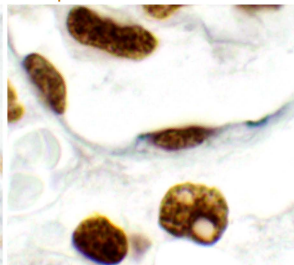
BTBR *ob/ob* leptin



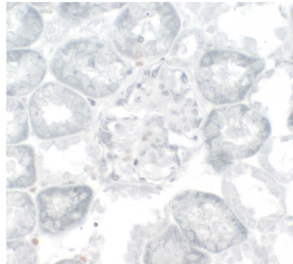
pStat3 Nephrin



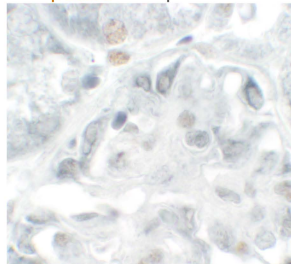
pStat3 Claudin-1



BTBR *ob/ob* saline



pStat3 Nephrin



pStat3 Claudin-1

