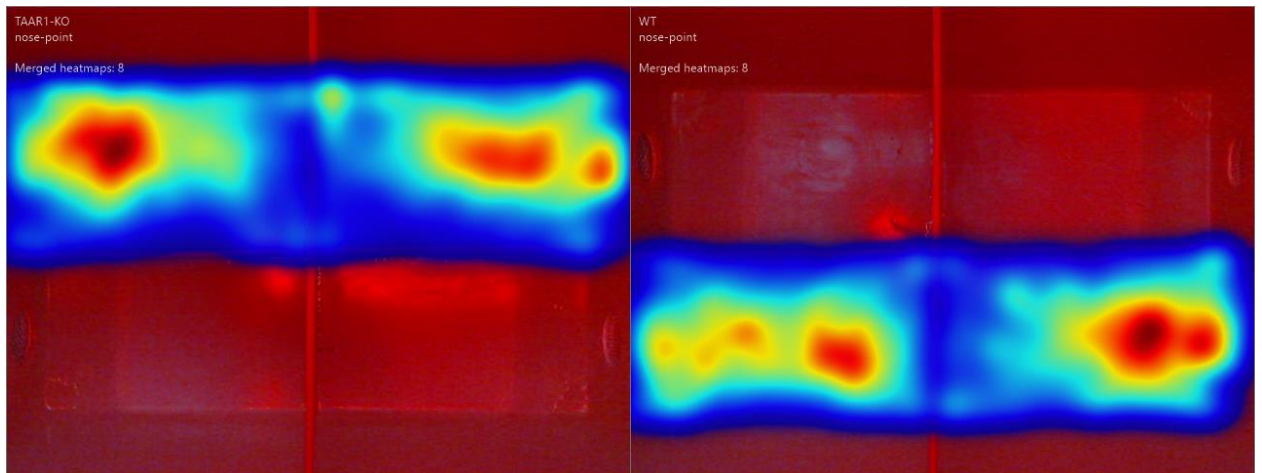


Supplementary Materials

A.



B.

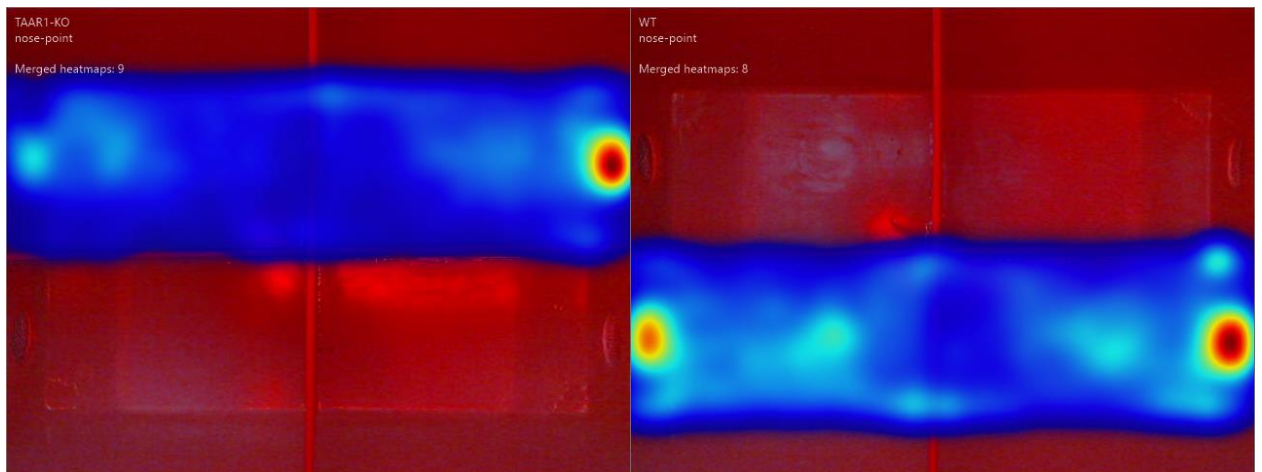


Figure S1. Heatmap visualization of comparative SIMT analysis of TAAR1-KO and WT mice. (Heatmap visualization of movement for TAAR1 and WT in SIMT experiment.)

There are significant differences in nose-point detection trajectories ($n=15$). In Figure S1 A presented experiment without female mice in cages. Thus, we can observe mostly investigational locomotors activity. In Figure S1 B male mice a mostly attracted by female estrus stimulus. Such heatmap visualization additionally supports effectiveness of adapted sexual motivation method for mice. Data are mean $\pm$ SEM.

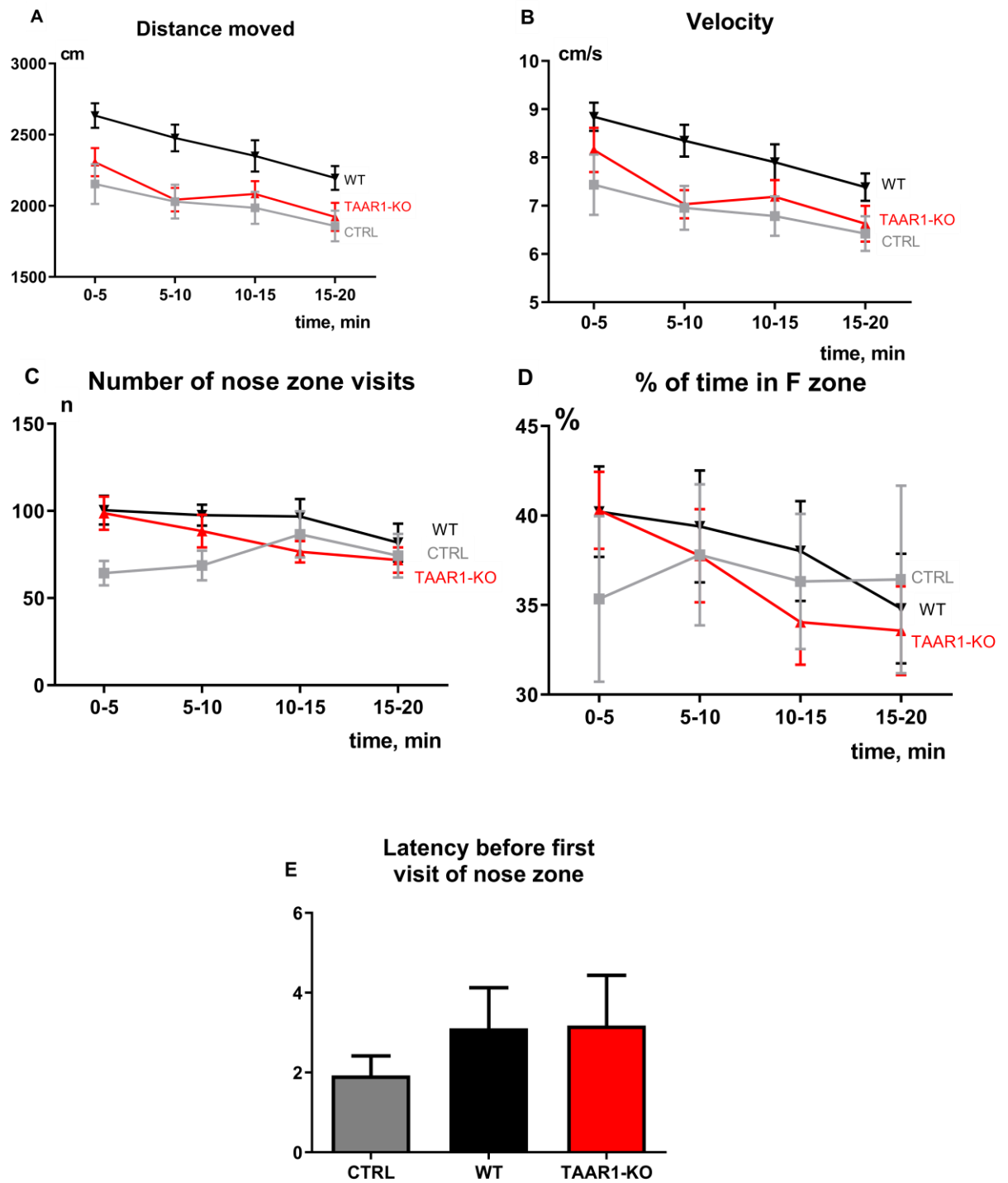


Figure S2. Additional parameters of SIMT test. Control wild type group without female (CTRL, n=15), wild type control group (WT, n=15), TAAR1 homozygous knock-out group, (TAAR1-KO, n=15). Data are Mean $\pm$ SEM. There are no significant differences in additional parameters were found (Figure S2 A-E). Data are mean $\pm$ SEM.

Table S1. Comparative biochemical and hormonal analysis of TAAR1-KO and WT mice (Data are Mean $\pm$ SEM).

Parameters (units)	WT	TAAR1-KO	Number of samples	Dilution factor
Testosterone (mmol/L)	3.26 $\pm$ 0.23	2.98 $\pm$ 0.48	WT = 8; KO = 7	3
ALT (U/L)	42 $\pm$ 2.87	55.57 $\pm$ 9.45	WT = 9; KO = 7	5
AST (U/L)	248.8 $\pm$ 37.11	222 $\pm$ 51.28	WT = 9; KO = 7	5
TP (fL)	66 $\pm$ 3.57	74.63 $\pm$ 5.86	WT = 14; KO = 13	10
Urea (mmol/L)	5.9 $\pm$ 0.66	6.7 $\pm$ 0.79	WT = 8; KO = 7	5
TG (g/dL)	1.06 $\pm$ 0.105	1.35 $\pm$ 0.18	WT = 9; KO = 8	5
LDH (U/L)	221.8 $\pm$ 23.8	440.1 $\pm$ 122.8	WT = 8; KO = 7	5
Creatine Kinase (U/L)	741.7 $\pm$ 75.02	463.5 $\pm$ 78.47	WT = 9; KO = 7	10
ALP (U/L)	82.78 $\pm$ 7.41	100.8 $\pm$ 18.74	WT = 9; KO = 7	5
TC (mmol/L)	4.14 $\pm$ 0.34	3.5 $\pm$ 0.34	WT = 7; KO = 6	5
LDLC (mg/dL)	119.3 $\pm$ 12.46	90.83 $\pm$ 13.32	WT = 7; KO = 6	5
HDLC (mmol/L)	0.14 $\pm$ 0.03	0.23 $\pm$ 0.08	WT = 7; KO = 6	5
Albumin (ng/L)	0.35 $\pm$ 0.05	0.22 $\pm$ 0.04	WT = 7; KO = 6	5
Total Bilirubin (μ mol/L)	7.21 $\pm$ 1.21	6.77 $\pm$ 0.01	WT = 7; KO = 6	5
Creatinine (μ mol/L)	37.29 $\pm$ 7.68	46.01 $\pm$ 13.47	WT = 7; KO = 6	5