SUPPLEMENTARY MATERIALS
to the the article "Sensorimotor phenotyping of adult male and female *Tph2*-knockout rats"
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Table S1. Kinematic parameters of locomotion

#	Parameter		#	Parameter	
1	E3	Hip angle	44	LH	Relative stance duration
2	F		45	RH	
3	E1		46	LF	
4	E3	Knee angle	47	RF	
5	F		48	LH	Stride length
6	E1		49	RH	
7	E3	Ankle angle	50	LF	
8	F		51	RF	
9	E1		52	HL	Left/right coupling
10	E3	MTP angle	53	FL	
11	F		54	LF/RH	FL-HL distance
12	E1		55	RF/LH	
13	Hip	Max angular velocity	56	HL	Step width
14	Knee		57	FL	
15	Angle		58	Velocity	
16	MTP		59	Joints correlation E3–F	IC vs Hip
17	Hip	Max angular acceleration	60		IC vs Knee
18	Knee		61		IC vs Ankle
19	Angle		62		IC vs MTP
20	MTP		63		Hip vs Knee
21	Step height		64		Hip vs Ankle
22	Iliac crest height		65		Hip vs MTP
23	Hip height		66		Knee vs Ankle
24	Max	Tail tip height	67		Knee vs MTP
25	Min		68		Ankle vs MTP
26	Retraction		69	Joints correlation F–E1	IC vs Hip
27	Protraction		70		IC vs Knee
28	LH	Swing duration	71		IC vs Ankle
29	RH		72		IC vs MTP
30	LF		73		Hip vs Knee
31	RF		74		Hip vs Ankle
32	LH	Stance duration	75		Hip vs MTP
33	RH		76		Knee vs Ankle
34	LF		77		Knee vs MTP
35	RF		78		Ankle vs MTP
36	LH	Step cycle	79	Joints correlation E1–E3	IC vs Hip
37	RH		80		IC vs Knee
38	LF		81		IC vs Ankle
39	RF		82		IC vs MTP
40	LH	Relative swing duration	83		Hip vs Knee
41	RH		84		Hip vs Ankle
42	LF		85		Hip vs MTP
43	RF		86		Knee vs Ankle
			87		Knee vs MTP
			88		Ankle vs MTP

Abbreviations: LF = left forelimb, RF = right forelimb, LH = left hindlimb, RH = right hindlimb; E1 = onset of joint flexion, E3 = maximal flexion/onset of extension, F = point of maximal extension; IC = iliac crest; MTP = metatarsophalangeal joint.

Table S2. Two-way ANOVA results for main kinematic parameters

Parameter	Interaction		Sex		Genotype	
	F (DFn. DFd)	P value	F (DFn. DFd)	P value	F (DFn. DFd)	P value
1	F (1, 34) = 0.6154	P=0.4382	F (1, 34) = 10.99	**P=0.0022**	F (1, 34) = 1.040	P=0.3150
2	F (1, 34) = 0.4740	P=0.4958	F (1, 34) = 20.09	**P<0.0001**	F (1, 34) = 0.2994	P=0.5878
3	F (1, 34) = 0.04861	P=0.8268	F (1, 34) = 21.15	**P<0.0001**	F (1, 34) = 0.1461	P=0.7047
4	F (1, 34) = 1.738	P=0.1962	F (1, 34) = 0.7008	P=0.4084	F (1, 34) = 0.6106	P=0.4400
5	F (1, 34) = 2.152	P=0.1516	F (1, 34) = 1.465	P=0.2344	F (1, 34) = 1.647	P=0.2081
6	F (1, 34) = 4.904	**P=0.0336**	F (1, 34) = 1.367	P=0.2504	F (1, 34) = 0.3940	P=0.5344
7	F (1, 34) = 1.923	P=0.1746	F (1, 34) = 0.2736	P=0.6043	F (1, 34) = 6.304	P=0.0170
8	F (1, 34) = 9.850	**P=0.0035**	F (1, 34) = 16.41	**P=0.0003**	F (1, 34) = 1.623	P=0.2114
9	F (1, 34) = 5.521	**P=0.0247**	F (1, 34) = 14.76	**P=0.0005**	F (1, 34) = 2.383	P=0.1319
10	F (1, 34) = 1.441	P=0.2382	F (1, 34) = 12.00	**P=0.0015**	F (1, 34) = 5.524	**P=0.0247**
11	F (1, 34) = 0.2522	P=0.6188	F (1, 34) = 0.09344	P=0.7617	F (1, 34) = 4.130	**P=0.0500**
12	F (1, 34) = 0.2946	P=0.5908	F (1, 34) = 16.94	**P=0.0002**	F (1, 34) = 0.004329	P=0.9479
13	F (1, 34) = 0.4871	P=0.4900	F (1, 34) = 1.575	P=0.2180	F (1, 34) = 11.51	**P=0.0018**
14	F (1, 34) = 0.1763	P=0.6773	F (1, 34) = 0.5008	P=0.4840	F (1, 34) = 0.04462	P=0.8340
15	F (1, 34) = 0.005766	P=0.9399	F (1, 34) = 0.1169	P=0.7345	F (1, 34) = 22.16	**P<0.0001**
16	F (1, 34) = 0.9023	P=0.3489	F (1, 34) = 0.8018	P=0.3768	F (1, 34) = 4.308	**P=0.0456**
17	F (1, 34) = 0.001326	P=0.9712	F (1, 34) = 3.873	P=0.0573	F (1, 34) = 6.695	**P=0.0141**
18	F (1, 34) = 0.4661	P=0.4994	F (1, 34) = 5.399	**P=0.0263**	F (1, 34) = 0.1497	P=0.7012
19	F (1, 34) = 0.3165	P=0.5774	F (1, 34) = 4.984	**P=0.0323**	F (1, 34) = 23.84	**P<0.0001**
20	F (1, 34) = 0.6404	P=0.4291	F (1, 34) = 1.093	**P=0.3031**	F (1, 34) = 3.385	P=0.0745
21	F (1, 34) = 0.008513	P=0.9270	F (1, 34) = 0.1185	P=0.7328	F (1, 34) = 0.01096	P=0.9173
22	F (1, 34) = 0.5628	P=0.4583	F (1, 34) = 15.55	**P=0.0004**	F (1, 34) = 2.470	P=0.1253
23	F (1, 34) = 1.060	P=0.3105	F (1, 34) = 46.79	**P<0.0001**	F (1, 34) = 0.9690	P=0.3319
24	F (1, 34) = 1.892	P=0.1780	F (1, 34) = 0.09230	P=0.7631	F (1, 34) = 0.1240	P=0.7269
25	F (1, 34) = 2.218	P=0.1457	F (1, 34) = 0.8646	P=0.3590	F (1, 34) = 0.7555	P=0.3908
26	F (1, 34) = 0.02393	P=0.8780	F (1, 34) = 77.12	**P<0.0001**	F (1, 34) = 4.339	**P=0.0448**
27	F (1, 34) = 0.01981	P=0.8889	F (1, 34) = 7.655	**P=0.0091**	F (1, 34) = 6.582	**P=0.0149**
28	F (1, 34) = 0.7743	P=0.3851	F (1, 34) = 10.07	**P=0.0032**	F (1, 34) = 2.915	P=0.0969
29	F (1, 34) = 3.439	P=0.0724	F (1, 34) = 28.04	**P<0.0001**	F (1, 34) = 3.439	P=0.0724
30	F (1, 34) = 5.767	**P=0.0219**	F (1, 34) = 5.767	**P=0.0219**	F (1, 34) = 13.69	**P=0.0008**
31	F (1, 34) = 1.532	P=0.2243	F (1, 34) = 11.24	**P=0.0020**	F (1, 34) = 16.55	**P=0.0003**
32	F (1, 34) = 1.488	P=0.2310	F (1, 34) = 2.469	P=0.1254	F (1, 34) = 31.26	**P<0.0001**
33	F (1, 34) = 0.7574	P=0.3903	F (1, 34) = 2.066	P=0.1598	F (1, 34) = 30.78	**P<0.0001**
34	F (1, 34) = 0.04257	P=0.8378	F (1, 34) = 3.280	P=0.0790	F (1, 34) = 29.64	**P<0.0001**
35	F (1, 34) = 0.07408	P=0.7871	F (1, 34) = 2.393	P=0.1311	F (1, 34) = 27.03	**P<0.0001**
36	F (1, 34) = 1.340	P=0.2551	F (1, 34) = 5.918	**P=0.0204**	F (1, 34) = 28.78	**P<0.0001**
37	F (1, 34) = 1.842	P=0.1837	F (1, 34) = 5.999	**P=0.0196**	F (1, 34) = 26.38	**P<0.0001**
38	F (1, 34) = 1.355	P=0.2525	F (1, 34) = 5.609	**P=0.0237**	F (1, 34) = 34.51	**P<0.0001**
39	F (1, 34) = 1.003	P=0.3236	F (1, 34) = 5.590	**P=0.0239**	F (1, 34) = 27.14	**P<0.0001**
40	F (1, 34) = 0.2896	P=0.5940	F (1, 34) = 0.05224	P=0.8206	F (1, 34) = 46.06	**P<0.0001**
41	F (1, 34) = 0.004034	P=0.9497	F (1, 34) = 0.6788	P=0.4158	F (1, 34) = 54.62	**P<0.0001**
42	F (1, 34) = 2.919	P=0.0966	F (1, 34) = 0.8142	P=0.3732	F (1, 34) = 30.44	**P<0.0001**
43	F (1, 34) = 1.296	P=0.2629	F (1, 34) = 0.03951	P=0.8436	F (1, 34) = 31.78	**P<0.0001**
44	F (1, 34) = 0.2896	P=0.5940	F (1, 34) = 0.05224	P=0.8206	F (1, 34) = 46.06	**P<0.0001**

Table S2 (end)

Parameter	Interaction		Sex		Genotype	
	F (DFn. DFd)	P value	F (DFn. DFd)	P value	F (DFn. DFd)	P value
45	F (1, 34) = 0.004034	P=0.9497	F (1, 34) = 0.6788	P=0.4158	F (1, 34) = 54.62	**P<0.0001**
46	F (1, 34) = 2.919	P=0.0966	F (1, 34) = 0.8142	P=0.3732	F (1, 34) = 30.44	**P<0.0001**
47	F (1, 34) = 1.296	P=0.2629	F (1, 34) = 0.03951	P=0.8436	F (1, 34) = 31.78	**P<0.0001**
48	F (1, 34) = 0.2324	P=0.6329	F (1, 34) = 50.48	**P<0.0001**	F (1, 34) = 13.19	**P=0.0009**
49	F (1, 34) = 0.008286	P=0.9280	F (1, 34) = 26.19	**P<0.0001**	F (1, 34) = 13.23	**P=0.0009**
50	F (1, 34) = 0.06927	P=0.7940	F (1, 34) = 47.24	**P<0.0001**	F (1, 34) = 11.79	**P=0.0016**
51	F (1, 34) = 0.006769	P=0.9349	F (1, 34) = 49.89	**P<0.0001**	F (1, 34) = 13.77	**P=0.0007**
52	F (1, 34) = 0.03064	P=0.8621	F (1, 34) = 9.130	**P=0.0048**	F (1, 34) = 16.09	**P=0.0003**
53	F (1, 34) = 0.6027	P=0.4429	F (1, 34) = 6.516	**P=0.0154**	F (1, 34) = 21.49	**P<0.0001**
54	F (1, 34) = 0.0009706	P=0.9753	F (1, 34) = 39.86	**P<0.0001**	F (1, 34) = 3.453	P=0.0718
55	F (1, 34) = 2.937	P=0.0957	F (1, 34) = 40.11	**P<0.0001**	F (1, 34) = 0.2743	P=0.6039
56	F (1, 34) = 5.579	**P=0.0240**	F (1, 34) = 2.166	P=0.1503	F (1, 34) = 0.8383	P=0.3663
57	F (1, 34) = 1.653	P=0.2072	F (1, 34) = 0.5115	P=0.4794	F (1, 34) = 0.3069	P=0.5832
58	F (1, 34) = 0.5105	P=0.4798	F (1, 34) = 35.03	**P<0.0001**	F (1, 34) = 58.74	**P<0.0001**
59	F (1, 34) = 0.04710	P=0.8295	F (1, 34) = 0.01114	P=0.9165	F (1, 34) = 0.3258	P=0.5719
60	F (1, 34) = 0.0009141	P=0.9761	F (1, 34) = 0.8069	P=0.3753	F (1, 34) = 0.1211	P=0.7300
61	F (1, 34) = 3.449	P=0.0720	F (1, 34) = 2.167	P=0.1502	F (1, 34) = 3.751	P=0.0611
62	F (1, 34) = 3.705	P=0.0627	F (1, 34) = 3.236	P=0.0809	F (1, 34) = 6.839	**P=0.0132**
63	F (1, 34) = 0.02597	P=0.8729	F (1, 34) = 0.3130	P=0.5795	F (1, 34) = 0.3103	P=0.5811
64	F (1, 34) = 2.221	P=0.1454	F (1, 34) = 4.797	**P=0.0355**	F (1, 34) = 2.303	P=0.1384
65	F (1, 34) = 3.129	P=0.0859	F (1, 34) = 1.590	P=0.2159	F (1, 34) = 1.608	P=0.2134
66	F (1, 34) = 0.4716	P=0.4969	F (1, 34) = 0.04498	P=0.8333	F (1, 34) = 0.2931	P=0.5917
67	F (1, 34) = 1.887	P=0.1786	F (1, 34) = 0.3321	P=0.5682	F (1, 34) = 1.284	P=0.2652
68	F (1, 34) = 0.3883	P=0.5374	F (1, 34) = 0.9048	P=0.3482	F (1, 34) = 4.165e-006	P=0.9984
69	F (1, 34) = 0.4007	P=0.5310	F (1, 34) = 0.005017	P=0.9439	F (1, 34) = 0.1144	P=0.7373
70	F (1, 34) = 0.2678	P=0.6081	F (1, 34) = 1.802	P=0.1884	F (1, 34) = 0.0001986	P=0.9888
71	F (1, 34) = 12.44	**P=0.0012**	F (1, 34) = 11.32	**P=0.0019**	F (1, 34) = 10.35	**P=0.0028**
72	F (1, 34) = 6.355	**P=0.0166**	F (1, 34) = 6.342	**P=0.0167**	F (1, 34) = 12.05	**P=0.0014**
73	F (1, 34) = 0.1999	P=0.6577	F (1, 34) = 0.06870	P=0.7948	F (1, 34) = 1.422	P=0.2413
74	F (1, 34) = 19.84	**P<0.0001**	F (1, 34) = 24.90	**P<0.0001**	F (1, 34) = 15.06	**P=0.0005**
75	F (1, 34) = 10.80	**P=0.0024**	F (1, 34) = 6.151	**P=0.0182**	F (1, 34) = 7.661	**P=0.0091**
76	F (1, 34) = 7.666	**P=0.0090**	F (1, 34) = 5.502	**P=0.0250**	F (1, 34) = 7.908	**P=0.0081**
77	F (1, 34) = 5.575	**P=0.0241**	F (1, 34) = 2.932	P=0.0960	F (1, 34) = 8.096	**P=0.0075**
78	F (1, 34) = 0.4581	P=0.5031	F (1, 34) = 0.2950	P=0.5906	F (1, 34) = 0.06666	P=0.7978
79	F (1, 34) = 0.9805	P=0.3291	F (1, 34) = 0.004924	P=0.9445	F (1, 34) = 0.02989	P=0.8638
80	F (1, 34) = 5.209	**P=0.0288**	F (1, 34) = 4.315	**P=0.0454**	F (1, 34) = 0.6097	P=0.4403
81	F (1, 34) = 7.586	**P=0.0094**	F (1, 34) = 9.263	**P=0.0045**	F (1, 34) = 3.151	P=0.0848
82	F (1, 34) = 5.229	**P=0.0286**	F (1, 34) = 5.917	**P=0.0204**	F (1, 34) = 3.879	P=0.0571
83	F (1, 34) = 3.012	P=0.0917	F (1, 34) = 4.093	P=0.0510	F (1, 34) = 0.3972	P=0.5328
84	F (1, 34) = 12.93	**P=0.0010**	F (1, 34) = 26.18	**P<0.0001**	F (1, 34) = 11.97	**P=0.0015**
85	F (1, 34) = 9.417	**P=0.0042**	F (1, 34) = 5.833	**P=0.0213**	F (1, 34) = 3.743	P=0.0614
86	F (1, 34) = 10.33	**P=0.0029**	F (1, 34) = 1.161	P=0.2888	F (1, 34) = 4.385	**P=0.0438**
87	F (1, 34) = 10.63	**P=0.0025**	F (1, 34) = 0.3440	P=0.5614	F (1, 34) = 5.934	**P=0.0202**
88	F (1, 34) = 2.202	P=0.1471	F (1, 34) = 0.05863	P=0.8101	F (1, 34) = 0.01132	P=0.9159

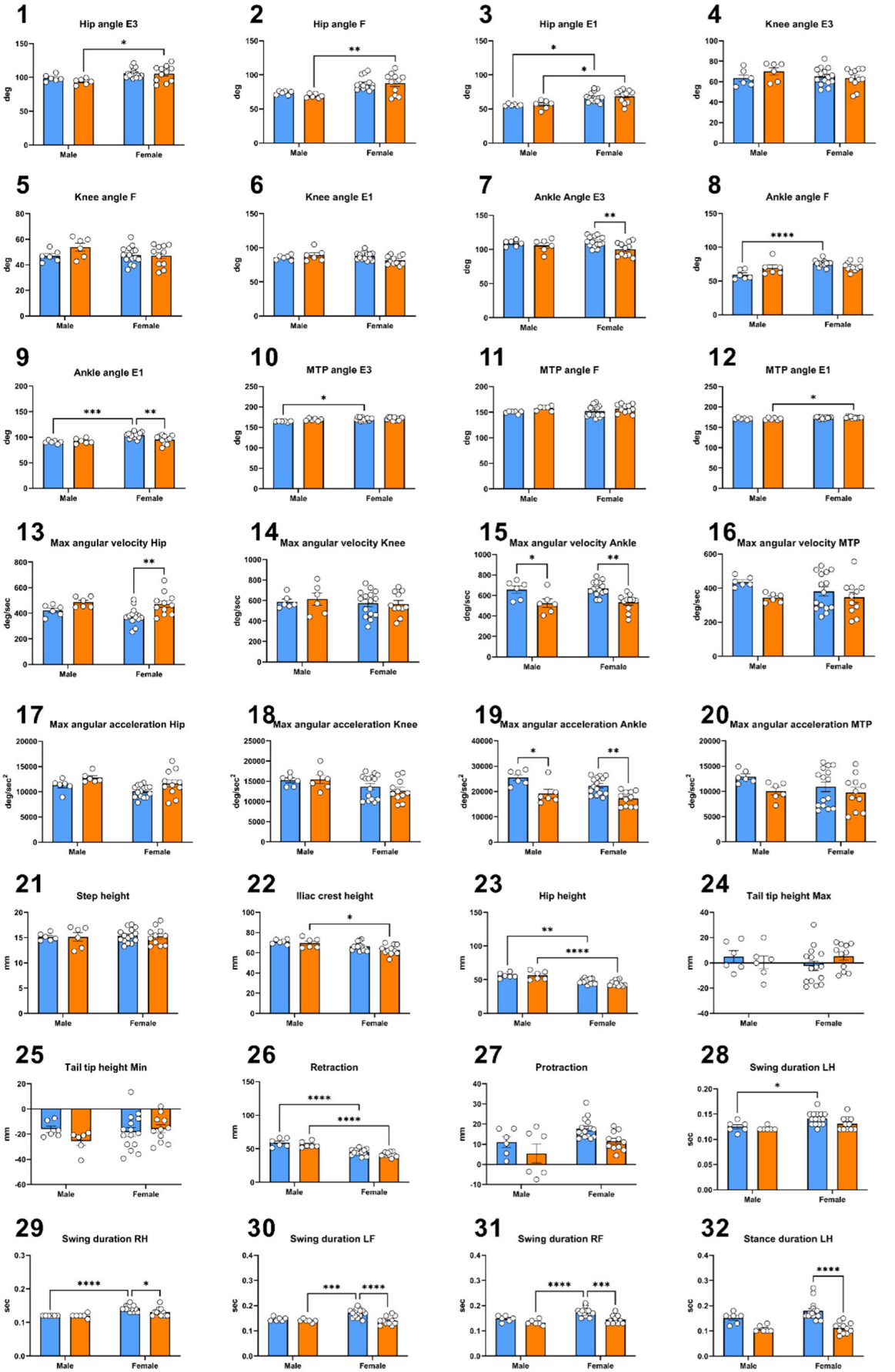


Fig. S1. Complete list of calculated kinematic parameters.

Statistically significant differences according to Šídák's post hoc test: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, **** $p < 0.0001$.

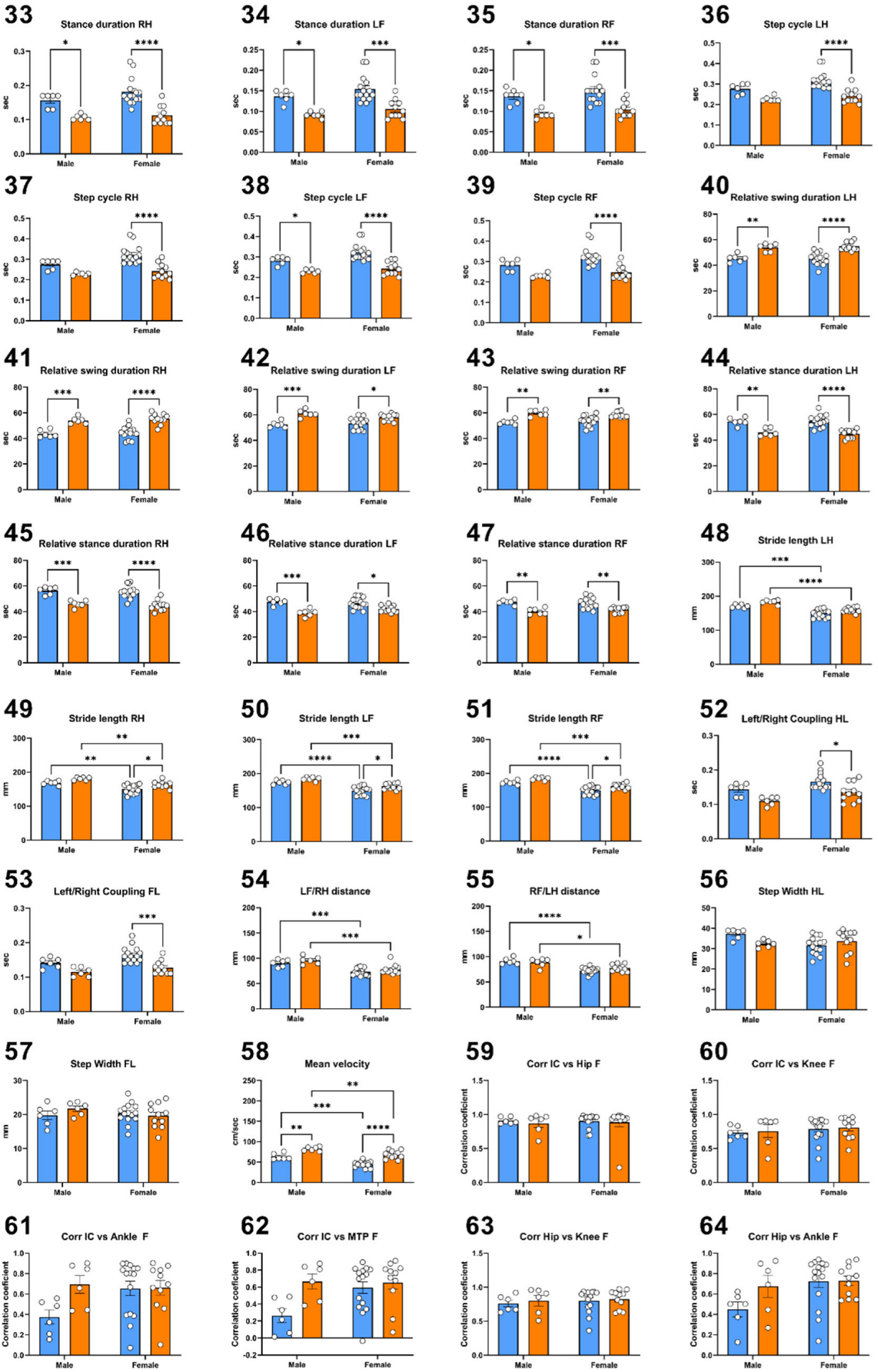


Fig. S1 (Continued)

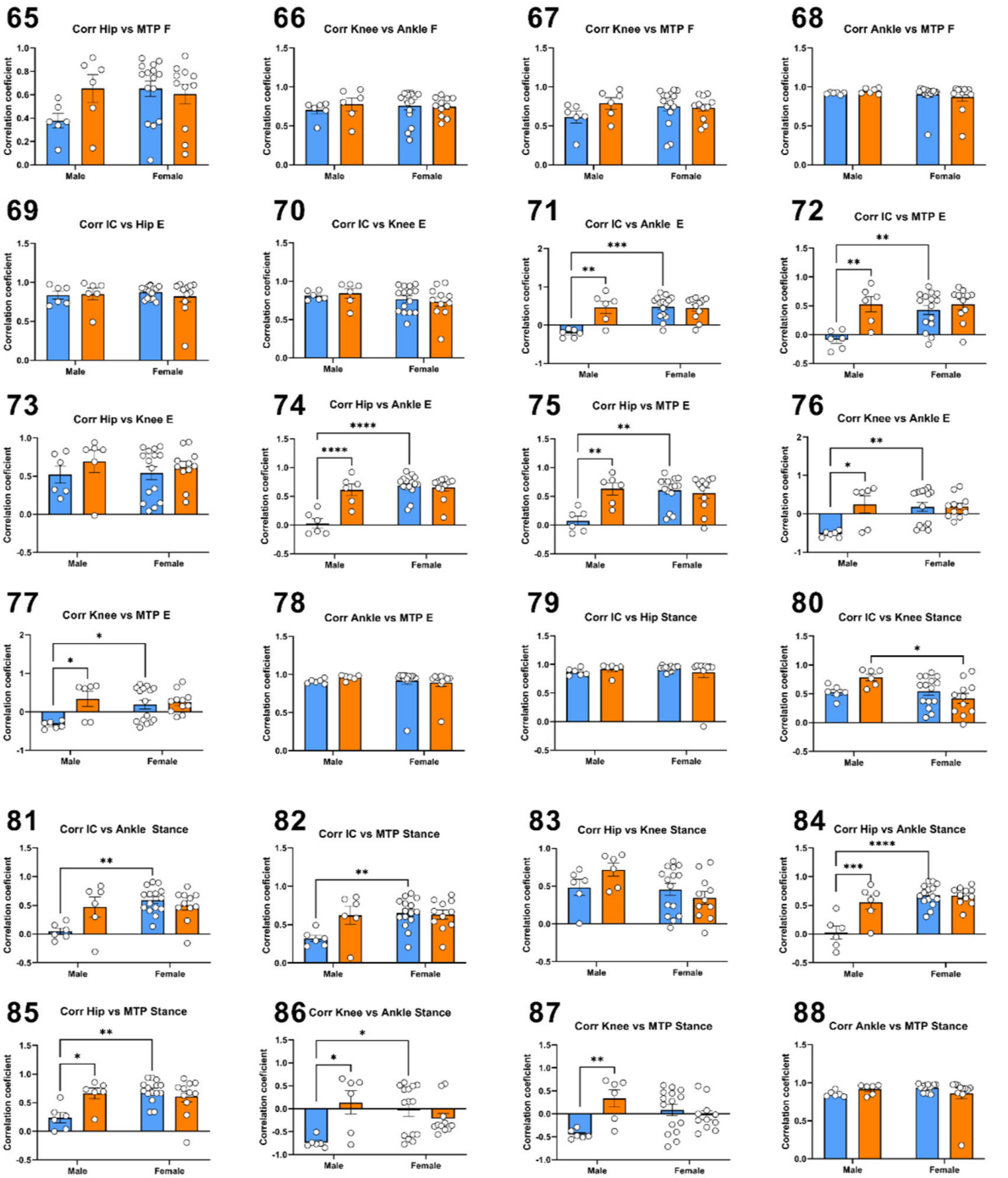

65
Corr Hip vs MTP F
66
Corr Knee vs Ankle F
67
Corr Knee vs MTP F
68
Corr Ankle vs MTP F
69
Corr IC vs Hip E
70
Corr IC vs Knee E
71
Corr IC vs Ankle E
72
Corr IC vs MTP E
73
Corr Hip vs Knee E
74
Corr Hip vs Ankle E
75
Corr Hip vs MTP E
76
Corr Knee vs Ankle E
77
Corr Knee vs MTP E
78
Corr Ankle vs MTP E
79
Corr IC vs Hip Stance
80
Corr IC vs Knee Stance
81
Corr IC vs Ankle Stance
82
Corr IC vs MTP Stance
83
Corr Hip vs Knee Stance
84
Corr Hip vs Ankle Stance
85
Corr Hip vs MTP Stance
86
Corr Knee vs Ankle Stance
87
Corr Knee vs MTP Stance
88
Corr Ankle vs MTP Stance
Correlation coeficient
Male
Female

Fig. S1 (End)

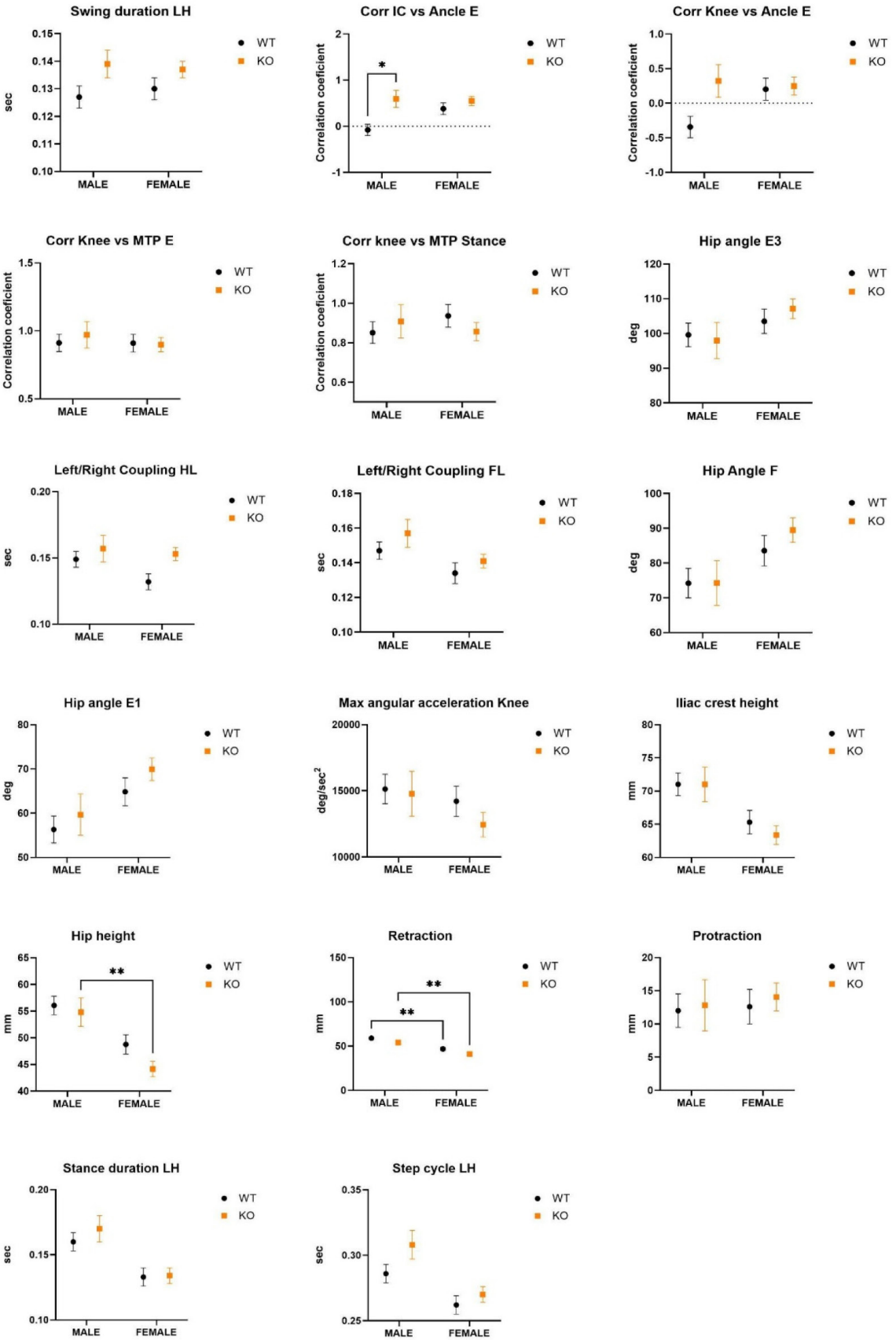


Fig. S2. Speed-adjusted kinematic parameters in WT and TPH2-KO rats of both sexes: estimated marginal means from ANCOVA with two-way ANOVA comparison.

Statistically significant differences according to Šídák's post hoc test: * $p < 0.05$, ** $p < 0.01$.