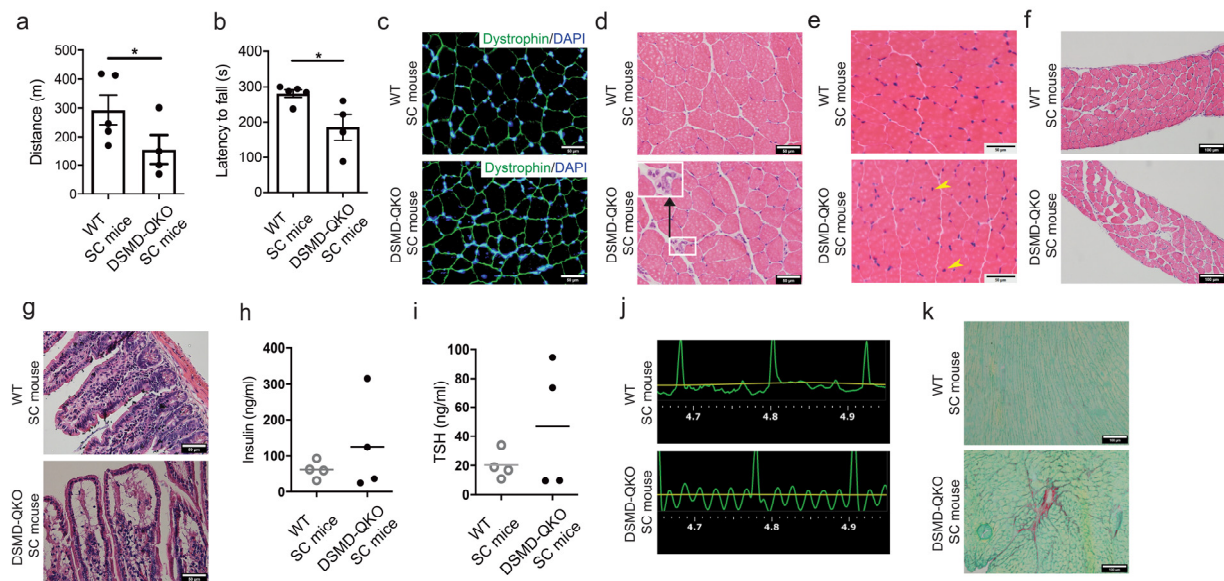


## Supplementary information, Figure S7



**Fig. S7** DM1-associated phenotypes in adult DSMD-QKO SC mice. **a** Treadmill test of QKO SC mice and control SC mice (WT SC mice,  $n = 5$ ; QKO SC mice,  $n = 4$ , 4-month old). Unpaired Student's  $t$ -test,  $*P < 0.05$ . **b** Rotarod analysis (WT SC mice,  $n = 5$ ; QKO SC mice,  $n = 4$ , 4-month old). Unpaired Student's  $t$ -test,  $*P < 0.05$ . **c** Immunofluorescent staining showing equivalent dystrophin (green) levels in DSMD-QKO and WT SC mice. Scale bars, 50  $\mu\text{m}$ . **d** H&E staining of TA muscle sections from DSMD-QKO and WT SC mice (4-6-month old). White box indicates nuclear clumps in DSMD-QKO muscle. Scale bars, 50  $\mu\text{m}$ . **e** Representative images of myofibers with central nuclei from TA muscle in QKO SC mice (P30). Yellow arrows indicate the myofibers with central nuclei. Scale bars, 50  $\mu\text{m}$ . **f** Histological analysis of diaphragm muscle showing loose construction and increased fat cell invasion in QKO SC mice (4-6-month old). Scale bars, 100  $\mu\text{m}$ . **g** H&E staining showing disorganization of intestine villi in adult DSMD-QKO mice (4-6-month old). Scale bars, 50  $\mu\text{m}$ . **h**, **i** Insulin and TSH levels determined by ELISA ( $n = 4$  per group, 4-6-month old). **j** Electrocardiography experiments showing atrial flutter in DSMD-QKO SC mice (4-6-month old). **k** Representative images of

sirius red staining showing myocardial fibrosis in QKO SC mice (4-6-month old). Scale bars,  
100  $\mu\text{m}$ .