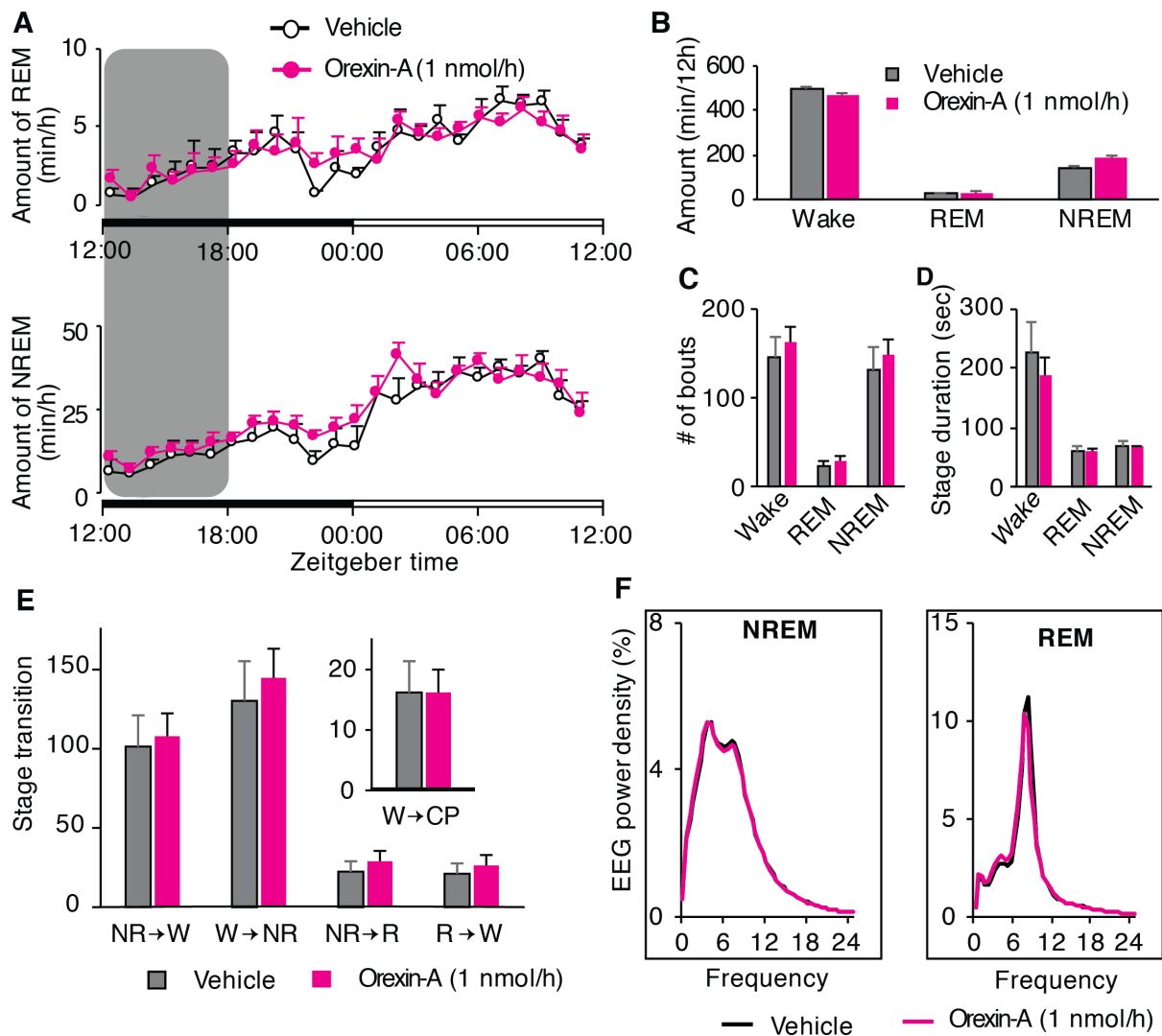


1 **Fig. S1.** Intrathecal orexin-A delivery in OXR-DKO mice was ineffective to suppress SOREM  
 2 and cataplexy. (**A, B**) Typical examples of EEG delta power (0.5– 4 Hz), EEG theta power (4  
 3 –10 Hz), EMG integral, and hypnogram of an OXR-KO mouse during aCSF (vehicle) or  
 4 orexin-A infusion with chocolate provided in the cage. Hypnograms represent concatenated  
 5 10-sec epochs of EEG/EMG activity, scored as wake, REM, NREM (gray), SOREM and  
 6 cataplexy (black). The shaded area on panel **B** shows the duration of orexin-A infusion and  
 7 non-shaded (both tracings) area represents continuous aCSF infusion.



1 **Fig. S2.** Orexin-A infusion in OXR-DKO did not change sleep/wake. **(A)** Hourly plots of REM  
 2 and NREM sleep in OXR-DKO mice, during/after a vehicle and orexin-A infusion. **(B)** The  
 3 total amount of each stage during the 12-h dark phase. **(C-D)** The number of bouts **(C)** and  
 4 stage duration **(D)** of the wake, REM and NREM sleep, during/after a vehicle and orexin-A  
 5 infusion in OXR-DKO mice. **(E)** Changes in stage transitions from NREM (NR)-Wake (W),  
 6 W-NR, NR-REM (R), R-W and W-cataplexy (CP), in OXR-DKO mice during/after a vehicle  
 7 and orexin-A infusion. **(F)** The power density of NREM and REM sleep episodes during/after  
 8 vehicle and orexin-A infusion in OXR-DKO mice. Values are mean  $\pm$  SEM;  $n = 5$ . Vehicle,  
 9 black lines and gray bars; orexin-A, colored lines and bars.