*Lonicerae Japonicae* Flos extract promotes sleep in sleep-deprived and lipopolysaccharide-challenged mice

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**Supplementary Figure 1. LJF has no effect on EEG power spectrum in the basal state.** (A and C) NREM sleep EEG power spectrum on nighttime(A) and daytime(C) between control(water) and LJF-treated mice. LJF has no significance on NREM sleep EEG power over 0.5-80 Hz frequency ranges. (B and D) Statistical chart of NREM sleep EEG power spectrum on nighttime(B) and daytime(D) after LJF and water. Note: n = 4 pre group. Data are expressed as means ± S.E.M. Two-tailed unpaired *t*-test. n.s., no significance.

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**Supplementary Figure 2. LJF has few effect on EEG power spectrum subjected to acute sleep deprivation.**  (A) EEG spectral power in NERM sleep after acute sleep deprivation. (B) Statistical chart showing NERM sleep EEG spectral power of delta (left) and gamma (right) on the first hour of sleep recovery. EEG spectral power had no significance between control(water) and LJF-treated mice. Note: n = 6 per group. Data are expressed as means ± S.E.M. Two-tailed unpaired *t*-test. n.s., no significance.

G:\project-金银花\frontiers in neuroscience\2-20220203-frontiers in neuroscience修稿意见\修回稿件\整理图\sFigure 3-LPS+LJF-sleep-POWER.tif

**Supplementary Figure 3.** **LJF has few effect on EEG power spectrum after LPS.** (A and C) NERM sleep EEG spectral power on nighttime (A) and daytime (C) in the saline (n=4), LPS (n=4), and LPS+LJF (n=6) mice. (B and D) Histogram plots showing NERM sleep EEG spectral power of delta (left) and gamma (right) on the nighttime (B) and daytime (D). LJF reduced EEG spectral power of gamma compared to LJF-challenged mice. Data are expressed as means ± S.E.M. One-way ANOVA followed by LSD post hoc test. \**P* < 0.05, \*\**P* < 0.01, \*\*\* *P* < 0.001, n.s., no significance.