**Supplementary item 5. rTMS effects on the behavioral profile related to other domains.** Study-wise list of dependent variables and results.

| Study                  | Intervention duration | Test: parameter(s) used                          | 1<sup>st</sup> assessment | 2<sup>nd</sup> assessment |
|------------------------|-----------------------|--------------------------------------------------|-----------------------------|---------------------------|
|                        |                       |                                                  | Timing                      | Results                   |
|                        |                       |                                                  |                             |                           |
| **General activity**   |                       |                                                  |                             |                           |
| Feng et al. 2012       | 3 weeks               | OFT: distance traveled (mm)                     | During the 1<sup>st</sup> week after the intervention | 15Hz: ns                  |
|                        |                       |                                                  |                             |                           |
| Hesselberg et al. 2016 | 10 days              | OFT: distance traveled (cm)                     | 24/48h after the last session | 1Hz: ns; 20Hz: ns         |
| Peng et al. 2018       | 7 days                | OFT: distance traveled (cm)                     | 24h after the last session  | 1Hz (0.84 T): ns; 1Hz (1.26 T): ns; 5Hz (0.84 T): ns; 5Hz (1.26 T): ns; 10Hz (0.84 T): ns; 10Hz (1.26 T): ns |
| Wang et al. 2014       | 7 days                | OFT: distance traveled (mm)                     | 24h after the last session  | 15Hz: ↑*                   |
| Wang et al. 2019       | 2 weeks               | OFT: distance traveled (cm)                     | 8 days after the first session | 0.5Hz: ns                |
|                        |                       | OFT: frequency of rearing                        |                             |                           |
|                        |                       | OFT: velocity (cm/s)                            |                             |                           |
| Xue et al. 2019        | 7 days                | OFT: distance traveled (mm)                     | 24/72h after the last session | 1Hz: ns; 5Hz: ns         |
| Zhao et al. 2018       | 3 weeks               | OFT: distance traveled (mm)                     | Immediately after the last session | 10Hz: ↑* |
|                        |                       | OFT: total vertical number                      |                             |                           |
| Zyss et al. 1997      | 2 weeks               | Locomotor activity: early phase exploratory activity (count) | 2h after the last session | 50Hz: ns                  |
|                        |                       | Locomotor activity: late phase basal activity (count) |                             | 50Hz: ↓                   |
| **Weight measurement** |                       |                                                  |                             |                           |
| Kim et al. 2014        | 2 weeks               | BW: weight (g)                                  | During the 1<sub>st</sub> week of intervention | 10Hz: ↑ (=recovery)       |
| Zhao et al. 2018       | 3 weeks               | BW: weight reduction rate (%)                   | Immediately after the last session | 10Hz: ↑ (=recovery)       |
| **Social interaction** |                       |                                                  |                             |                           |
| Hargreaves et al. 2005 | 18 days              | SIT: social interaction duration (s)             | 10/11 days after the first session | 20Hz: ns                  |
|                        |                       | SIT: aggressive behavior duration (s)            |                             | 20Hz: ns                  |
|                        |                       | SIT: escape activity duration (s)                |                             | 20Hz: ns                  |
| Keck et al. 2000       | 5 weeks               | SIT: active interaction duration (s)             | During the 2<sup>nd</sup> week after the intervention | 20Hz: ns                  |
| Reference | Timeframe | Test/Behavior | Timepoint | Frequency | Note |
|-----------|-----------|---------------|-----------|-----------|------|
| Tan et al. 2018 | 2 weeks | Three-chamber test: ratio of time spent in the rat/object compartment | 24h after the last session | 1Hz: ↑ (=recovery) | |
| Feng et al. 2012 | 3 weeks | NSFT: amount of food consumed (g) | During the 1st week after the intervention | 15Hz: ns | During the 3rd week after the intervention |
| Tan et al. 2018 | 2 weeks | Self-grooming in an open-field arena: duration of self-grooming (s) | 48h after the last session | 1Hz: ↓ (=recovery) | |
| Zyss et al. 1997 | 2 weeks | Tail-flick test: latency of tail-flick response (s) | 2h after the last session | 50Hz: ns | |

Table illustrating the effects of rTMS intervention on the behavioral profile related to other domains (i.e., general activity, weight measurement, social interaction, etc.) on all available parameters within each test and at all timepoints (on-going, shorth-term, long-term).

*Reduction in passive behavior (i.e. immobility/ floating) is interpreted as an antidepressant-like effect of the manipulation, provided that it does not increase general activity, which may produce a false positive result in the FST. However, as a significant decrease in locomotor activity (indicative of psychomotor retardation) is induced by the CUS procedure, an increase in distance traveled in the OFT in the CUS model can be interpreted as a recovery of the depressive-like phenotype. To exclude potential confounding effects in the interpretation of the FST, comparisons with additional control groups are usually performed (i.e. non-depressed vs depressed subjects both exposed to the active rTMS intervention; e.g. 57).

Notes. Timing is referred to the rTMS intervention; recovery: recovery of the phenotype in animal models of disease. Abbreviations. OFT: open-field test; BW: bodyweight; SIT: social interaction test; NSFT: novelty-suppressed feeding test; ↓ ↑: statistically significant change; ns: not significant.