

## Supplementary materials

### 3. Results

#### 3.1. *Exploratory activity*

- the total distance travelled:  $2285.69 \pm 84.80$  control vs.  $2573.32 \pm 94.02$  MIA,  $p = 0.0389$  (Figure 2)
- the exploration in the second interval of the experiment:  $456.81 \pm 21.30$  control vs.  $562.34 \pm 23.66$  MIA,  $p = 0.0029$  (Figure 2)

#### 3.2. *Light-dark box test*

- the time spent in the light compartment:  $54.18 \pm 6.69$  control vs.  $34.87 \pm 6.02$  MIA,  $p = 0.0401$  (Figure 3)
- the distance travelled in the light compartment:  $1116.86 \pm 147.79$  control vs.  $656.19 \pm 116.68$  MIA,  $p = 0.0162$  (Figure 3)
- the time spent in the dark compartment:  $545.82 \pm 6.69$  control vs.  $565.14 \pm 6.02$  MIA,  $p = 0.0401$  (Figure 3)
- the distance travelled in the dark compartment:  $4538.70 \pm 138.99$  control vs.  $4128.84 \pm 118.53$  MIA,  $p = 0.0299$  (Figure 3)
- the average speed in the dark compartment:  $8.42 \pm 0.31$  control vs.  $7.44 \pm 0.27$  MIA,  $p = 0.0213$  (Figure 3)

#### 3.3. *Forced swim test*

No significant changes (Figure 4).

#### 3.4. *Social interaction test*

No significant changes (Table 1).

#### 3.5. *Prepulse inhibition of the acoustic startle response*

- PPI, the 75 dB prepulse, the animals at PND30:  $21.45 \pm 8.45$  control vs.  $43.85 \pm 3.22$  MIA,  $p = 0.0157$  (Table 2)
- PPI, the 70 dB prepulse, the animals at PND100:  $60.53 \pm 2.60$  control vs.  $44.43 \pm 2.93$  MIA responsive,  $p = 0.0008$ ;  $60.53 \pm 2.60$  control vs.  $71.32 \pm 2.77$  MIA non-responsive,  $p = 0.0126$  (Figure 5)
- PPI, the 75 dB prepulse, the animals at PND100:  $76.18 \pm 2.38$  control vs.  $66.39 \pm 3.39$  MIA responsive,  $p = 0.0252$ ;  $76.18 \pm 2.38$  control vs.  $83.17 \pm 1.59$  MIA non-responsive,  $p = 0.0475$  (Figure 5)
- PPI, the 70 dB prepulse, the animals at PND120:  $68.27 \pm 5.02$  MIA non-responsive + vehicle vs.  $26.13 \pm 11.04$  MIA non-responsive + LPS,  $p = 0.0005$  (Figure 5)

- PPI, the 75 dB prepulse, the animals at PND120:  $61.77 \pm 4.18$  control + LPS vs.  $77.24 \pm 5.89$  MIA responsive + LPS,  $p = 0.0182$ ;  $61.32 \pm 5.24$  MIA non-responsive + LPS vs.  $77.24 \pm 5.89$  MIA responsive + LPS,  $p = 0.0335$ ;  $83.46 \pm 1.61$  MIA non-responsive + vehicle vs.  $61.32 \pm 5.24$  MIA non-responsive + LPS,  $p = 0.0042$ ;  $73.49 \pm 3.24$  control + vehicle vs.  $61.77 \pm 4.18$  control + LPS,  $p = 0.0440$  (Figure 5)

3.6. *The mRNA expression of the Cx3cl1, Cx3cr1, Cd200 and Cd200r in the frontal cortices and hippocampi of adult male offspring*

- Frontal cortex, *Cd200*:  $1.02 \pm 0.08$  control + vehicle vs.  $1.31 \pm 0.07$  MIA non-responsive + vehicle,  $p = 0.0313$ ;  $0.99 \pm 0.11$  MIA responsive + vehicle vs.  $1.31 \pm 0.07$  MIA non-responsive + vehicle,  $p = 0.0345$  (Figure 6)
- Frontal cortex, *Cd200r*:  $1.08 \pm 0.18$  control + vehicle vs.  $1.67 \pm 0.16$  MIA non-responsive + vehicle,  $p = 0.0329$ ;  $1.03 \pm 0.25$  MIA responsive + vehicle vs.  $1.67 \pm 0.16$  MIA non-responsive + vehicle,  $p = 0.0340$ ;  $1.67 \pm 0.16$  MIA non-responsive + vehicle vs.  $0.83 \pm 0.12$  MIA non-responsive + LPS,  $p = 0.0050$  (Figure 6)
- Frontal cortex, *Cx3cl1*:  $1.12 \pm 0.09$  control + LPS vs.  $0.93 \pm 0.10$  MIA responsive + LPS,  $p = 0.0456$  (Figure 6).

3.7. *Levels of the CX3CL1, CX3CR1, CD200 and CD200R proteins in the frontal cortices and hippocampi of adult male offspring*

- Frontal cortex, CX3CL1:  $0.16 \pm 0.02$  control + vehicle vs.  $0.11 \pm 0.02$  MIA non-responsive + vehicle,  $p = 0.0382$ ;  $0.16 \pm 0.02$  control + vehicle vs.  $0.09 \pm 0.01$  control + LPS,  $p = 0.0011$  (Figure 7)
- Frontal cortex, CX3CR1:  $31.67 \pm 3.12$  MIA non-responsive + vehicle vs.  $23.22 \pm 2.35$  MIA non-responsive + LPS,  $p = 0.0137$ ;  $29.09 \pm 1.12$  control + LPS vs.  $23.22 \pm 2.35$  MIA non-responsive + LPS,  $p = 0.0440$  (Figure 7)
- Frontal cortex, CD200R:  $25.17 \pm 0.64$  control + vehicle vs.  $21.61 \pm 0.35$  MIA responsive + vehicle,  $p = 0.0423$ ;  $25.17 \pm 0.64$  control + vehicle vs.  $20.52 \pm 0.55$  MIA non-responsive + vehicle,  $p = 0.0059$ ;  $25.17 \pm 0.64$  control + vehicle vs.  $20.42 \pm 0.73$  control + LPS,  $p = 0.0011$  (Figure 7)
- Hippocampus, CX3CR1:  $15.08 \pm 0.90$  control + vehicle vs.  $12.68 \pm 0.83$  MIA non-responsive + vehicle,  $p = 0.0491$  (Figure 7)
- Hippocampus, CD200:  $73.17 \pm 2.98$  control + vehicle vs.  $62.16 \pm 2.00$  MIA non-responsive + vehicle,  $p = 0.0111$  (Figure 7)
- Hippocampus, CD200R:  $19.69 \pm 1.44$  MIA responsive + vehicle vs.  $15.66 \pm 0.91$  MIA non-responsive + vehicle,  $p = 0.0348$  (Figure 7)
- Hippocampus, CX3CL1:  $0.15 \pm 0.03$  MIA responsive + vehicle vs.  $0.08 \pm 0.02$  MIA responsive + LPS,  $p = 0.0245$  (Figure 7)

3.8. *The IBA1 levels in the frontal cortices and hippocampi of adult male offspring*

No significant changes (Figure 8).

3.9. *The mRNA expression of the microglial markers in the frontal cortices and hippocampi of adult male offspring*

- Frontal cortex, *Cd40*:  $0.89 \pm 0.14$  MIA responsive + vehicle vs.  $3.87 \pm 0.60$  MIA responsive + LPS,  $p = 0.0016$ ;  $1.16 \pm 0.09$  MIA non-responsive + vehicle vs.  $4.71 \pm 1.14$  MIA non-responsive + LPS,  $p = 0.0011$ ; (Figure 9)
- Frontal cortex, *iNos*:  $2.28 \pm 0.35$  MIA responsive + vehicle vs.  $21.56 \pm 3.91$  MIA responsive + LPS,  $p = 0.0057$ ;  $0.88 \pm 0.34$  MIA non-responsive + vehicle vs.  $38.34 \pm 2.32$  MIA non-responsive + LPS,  $p < 0.0001$ ;  $21.56 \pm 3.91$  MIA responsive + LPS vs.  $38.34 \pm 2.32$  MIA non-responsive + LPS,  $p = 0.0019$ ;  $25.51 \pm 3.85$  control + LPS vs.  $38.34 \pm 2.32$  MIA non-responsive + LPS,  $p = 0.0067$ ;  $1.03 \pm 0.19$  control + vehicle vs.  $25.51 \pm 3.85$  control + LPS,  $p < 0.0001$  (Figure 9)
- Frontal cortex, *Il-1 $\beta$* :  $0.97 \pm 0.10$  MIA responsive + vehicle vs.  $4.24 \pm 1.47$  MIA responsive + LPS,  $p = 0.0239$ ;  $1.19 \pm 0.30$  MIA non-responsive + vehicle vs.  $6.59 \pm 1.43$  MIA non-responsive + LPS,  $p = 0.0012$ ;  $1.04 \pm 0.12$  control + vehicle vs.  $5.13 \pm 0.76$  control + LPS,  $p = 0.0003$  (Figure 9)
- Frontal cortex, *Tnf- $\alpha$* :  $1.00 \pm 0.11$  MIA responsive + vehicle vs.  $5.00 \pm 0.94$  MIA responsive + LPS,  $p = 0.0212$ ;  $1.61 \pm 0.20$  MIA non-responsive + vehicle vs.  $9.95 \pm 2.18$  MIA non-responsive + LPS,  $p < 0.0001$ ;  $5.00 \pm 0.94$  MIA responsive + LPS vs.  $9.95 \pm 2.18$  MIA non-responsive + LPS,  $p = 0.0036$ ;  $6.52 \pm 0.67$  control + LPS vs.  $9.95 \pm 2.18$  MIA non-responsive + LPS,  $p = 0.0129$ ;  $1.03 \pm 0.09$  control + vehicle vs.  $6.52 \pm 0.67$  control + LPS,  $p = 0.0001$  (Figure 9)
- Frontal cortex, *Il-6*:  $0.81 \pm 0.09$  MIA responsive + vehicle vs.  $2.25 \pm 0.40$  MIA responsive + LPS,  $p = 0.0172$ ;  $0.96 \pm 0.17$  MIA non-responsive + vehicle vs.  $3.90 \pm 0.91$  MIA non-responsive + LPS,  $p = 0.0001$ ;  $2.25 \pm 0.40$  MIA responsive + LPS vs.  $3.90 \pm 0.91$  MIA non-responsive + LPS,  $p = 0.0068$ ;  $2.13 \pm 0.23$  control + LPS vs.  $3.90 \pm 0.91$  MIA non-responsive + LPS,  $p = 0.0020$ ;  $1.07 \pm 0.16$  control + vehicle vs.  $2.13 \pm 0.23$  control + LPS,  $p = 0.0216$  (Figure 9)
- Frontal cortex, *MhcII*:  $4.90 \pm 0.67$  control + LPS vs.  $2.72 \pm 0.51$  MIA non-responsive + LPS,  $p = 0.0324$ ;  $1.10 \pm 0.37$  control + vehicle vs.  $4.90 \pm 0.67$  control + LPS,  $p = 0.0001$  (Figure 9)
- Frontal cortex, *Cd40*:  $1.03 \pm 0.10$  control + vehicle vs.  $4.46 \pm 0.53$  control + LPS,  $p < 0.0001$  (Figure 9)
- Frontal cortex, *Il-4*:  $0.87 \pm 0.13$  control + LPS vs.  $1.98 \pm 0.38$  MIA non-responsive + LPS,  $p = 0.0047$ ;  $0.91 \pm 0.12$  MIA responsive + LPS vs.  $1.98 \pm 0.38$  MIA non-responsive + LPS,  $p = 0.0127$  (Figure 10)
- Frontal cortex, *Tgf- $\beta$* :  $1.01 \pm 0.05$  control + vehicle vs.  $1.26 \pm 0.05$  control + LPS,  $p = 0.0157$  (Figure 10)
- Hippocampus, *MhcII*:  $0.72 \pm 0.08$  MIA responsive + vehicle vs.  $1.47 \pm 0.27$  MIA responsive + LPS,  $p = 0.0229$ ;  $0.56 \pm 0.11$  MIA non-responsive + vehicle vs.  $1.50 \pm 0.18$  MIA non-responsive + LPS,  $p = 0.0017$  (Figure 9)
- Hippocampus, *Cd40*:  $0.87 \pm 0.16$  MIA responsive + vehicle vs.  $3.15 \pm 0.44$  MIA responsive + LPS,  $p = 0.0034$ ;  $0.90 \pm 0.15$  MIA non-responsive + vehicle vs.  $4.14 \pm 0.67$  MIA non-responsive + LPS,  $p < 0.0001$ ;  $2.85 \pm 0.52$  control + LPS vs.  $4.14 \pm 0.67$  MIA non-responsive + LPS,  $p = 0.0413$ ;  $1.08 \pm 0.22$  control + vehicle vs.  $2.85 \pm 0.52$  control + LPS,  $p = 0.0045$  (Figure 9)
- Hippocampus, *Tnf- $\alpha$* :  $0.93 \pm 0.19$  MIA responsive + vehicle vs.  $4.62 \pm 0.82$  MIA responsive + LPS,  $p < 0.0001$ ;  $1.05 \pm 0.16$  MIA non-responsive + vehicle vs.  $4.91 \pm 0.62$  MIA non-responsive + LPS,  $p < 0.0001$ ;  $1.04 \pm 0.12$  control + vehicle vs.  $3.62 \pm 0.50$  control + LPS,  $p = 0.0003$  (Figure 9)
- Hippocampus, *Il-6*:  $0.69 \pm 0.12$  MIA responsive + vehicle vs.  $1.89 \pm 0.12$  MIA responsive + LPS,  $p = 0.0001$ ;  $0.77 \pm 0.04$  MIA non-responsive + vehicle vs.  $2.24 \pm 0.34$  MIA non-responsive + LPS,  $p < 0.0001$ ;  $1.42 \pm 0.12$  control + LPS vs.  $2.24 \pm 0.34$  MIA non-responsive + LPS,  $p = 0.0017$  (Figure 9)
- Hippocampus, *iNos*:  $0.37 \pm 0.10$  MIA non-responsive + vehicle vs.  $5.69 \pm 1.76$  MIA non-responsive + LPS,  $p = 0.0014$ ;  $0.99 \pm 0.25$  control + vehicle vs.  $5.43 \pm 1.10$  control + LPS,  $p = 0.0008$  (Figure 9)
- Hippocampus, *Il-1 $\beta$* :  $0.72 \pm 0.05$  MIA non-responsive + vehicle vs.  $4.24 \pm 1.02$  MIA non-responsive + LPS,  $p = 0.0010$ ;  $1.04 \pm 0.13$  control + vehicle vs.  $4.36 \pm 0.89$  control + LPS,  $p = 0.0005$  (Figure 9)

- Hippocampus, *Arg1*:  $1.02 \pm 0.09$  control + vehicle vs.  $0.60 \pm 0.07$  MIA responsive + vehicle,  $p = 0.0058$ ;  $0.60 \pm 0.07$  MIA responsive + vehicle vs.  $0.99 \pm 0.08$  MIA responsive + LPS,  $p = 0.0132$ ;  $0.60 \pm 0.07$  MIA responsive + vehicle vs.  $0.74 \pm 0.12$  MIA non-responsive + vehicle,  $p = 0.0452$
- Hippocampus, *Igf-1*:  $1.01 \pm 0.06$  control + vehicle vs.  $1.30 \pm 0.23$  MIA responsive + vehicle,  $p = 0.0236$ ;  $1.30 \pm 0.23$  MIA responsive + vehicle vs.  $0.91 \pm 0.07$  MIA responsive + LPS,  $p = 0.0052$
- Hippocampus, *Il-4*:  $1.11 \pm 0.19$  MIA responsive + vehicle vs.  $0.39 \pm 0.09$  MIA responsive + LPS,  $p = 0.0123$ ;  $0.39 \pm 0.09$  MIA responsive + LPS vs.  $1.02 \pm 0.10$  MIA non-responsive + LPS,  $p = 0.0205$  (Figure 10)

### 3.10. Levels of the IL-6 and IL-4 proteins in the frontal cortices and hippocampi of adult male offspring

- Frontal cortex, IL-6:  $9.18 \pm 0.49$  control + vehicle vs.  $12.59 \pm 1.98$  MIA responsive + vehicle,  $p = 0.0457$
- Frontal cortex, IL-4:  $3.68 \pm 0.21$  control + vehicle vs.  $5.00 \pm 0.50$  MIA non-responsive + vehicle,  $p = 0.0029$ ;  $3.76 \pm 0.12$  control + LPS vs.  $5.03 \pm 0.50$  MIA non-responsive + LPS,  $p = 0.0042$  (Figure 11)