**Supplementary Table S1. Summary of statistical analyses.**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Parameter** | **Type of test** | | | **Description of analysis** | | **Test value** | | | **p-value** | |
| *SPSS Statistics 25 - Treatment: 3 factors (CTL, GBS Ia, GBS III), One value per litter* | | | | | | | | | | |
| Mean weight of dams (G19) | 1-way ANOVA | | | Main effect: Treatment | | F (2, 31) = .230 | | | .796 | |
| Mean weight of dams (G20 to G22) | 2-way ANCOVA | | | Interaction: Treatment x Gestational day | | F (2, 28) = .454 | | | .639 | |
|  | (covariate: weight at G19) | | | Main effect: Gestational day | | F (1, 28) = 1,774 | | | .194 | |
|  |  | | | Main effect: Treatment | | F (2, 28) = 18.836 | | | **< .0001** | |
|  |  | | | Sidak post hoc: CTL vs. GBS Ia | |  | | | .**003** | |
|  |  | | | Sidak post hoc: CTL vs. GBS III | |  | | | **< .0001** | |
|  |  | | | Sidak post hoc: GBS Ia vs. GBS III | |  | | | .211 | |
| Mean number of pups per litter | 1-way ANOVA | | | Main effect: Treatment | | F (2, 25) = 2.177 | | | .136 | |
| *Sex ratio* | 1-way ANOVA | | | Main effect: Treatment | | F (2, 25) = .315 | | | .733 | |
| Mean weight of male pups at P1 | 1-way ANOVA | | | Main effect: Treatment | | F (2,21) = 4.942 | | | **.017** | |
|  |  | | | Sidak post hoc: CTL vs. GBS Ia | |  | | | .832 | |
|  |  | | | Sidak post hoc: CTL vs. GBS III | |  | | | **.022** | |
|  |  | | | Sidak post hoc: GBS Ia vs. GBS III | |  | | | .203 | |
| Mean weight of female pups at P1 | 1-way ANOVA | | | Main effect: Treatment | | F (2, 21) = 3.089 | | | .067 | |
|  |  | | | Sidak post hoc: CTL vs. GBS Ia | |  | | | .909 | |
|  |  | | | Sidak post hoc: CTL vs. GBS III | |  | | | .089 | |
|  |  | | | Sidak post hoc: GBS Ia vs. GBS III | |  | | | .320 | |
| *SPSS Statistics 25 - Treatment: 2 factors (CTL, GBS III), One value per litter* | | | | | | | | | | |
| Mean weight of male rats at P40 | 1-way ANOVA | | | Main effect: Treatment | | F (2,15) = 3.693 | | | **.049** | |
| Mean weight of female rats at P40 | 1-way ANOVA | | | Main effect: Treatment | | F (2,16) = 3.412 | | | .058 | |
| Mean weight of forebrains at P40 | 2-way ANOVA | | | Interaction: Treatment x Sex | | F (1, 26) = .507 | | | .483 | |
|  |  | | | Main effect: Treatment | | F (1, 26) = 3.697 | | | .066 | |
|  |  | | | Main effect: Sex | | F (1, 26) = 4.567 | | | **.042** | |
| *SPSS Statistics 25 - Treatment: 2 factors (CTL, GBS III), Random effect: litterID* | | | | | | | | | | |
| Open Field - Total distance - P15 | Linear mixed model | | | Random effect: LitterID | |  | | | .207 | |
|  |  | | | Interaction: Treatment x Sex | | F (1, 40) = .691 | | | .411 | |
|  |  | | | Main effect: Treatment | | F (1, 11) = .591 | | | .459 | |
|  |  | | | Main effect: Sex | | F (1, 40) = 1.076 | | | .306 | |
| Open Field - Total distance - P20 | Linear mixed model | | | Random effect: LitterID | |  | | | .214 | |
|  |  | | | Interaction: Treatment x Sex | | F (1, 40) = .581 | | | .450 | |
|  |  | | | Main effect: Treatment | | F (1, 11) = .225 | | | .645 | |
|  |  | | | Main effect: Sex | | F (1, 40) = .002 | | | .961 | |
| Open Field - Total distance - P25 | Linear mixed model | | | Random effect: LitterID | |  | | | .121 | |
|  |  | | | Interaction: Treatment x Sex | | F (1, 39) = 8.497 | | | **.006** | |
|  |  | | | Sidak post hoc: M CTL vs. M GBS III | |  | | | **.038** | |
|  |  | | | Sidak post hoc: F CTL vs. F GBS III | |  | | | .598 | |
|  |  | | | Sidak post hoc: M CTL vs. F CTL | |  | | | **.042** | |
|  |  | | | Sidak post hoc: M GBS III vs. F GBS III | |  | | | **.048** | |
| Open Field - Mobility - P15 | Linear mixed model | | | Random effect: LitterID | |  | | | .277 | |
|  |  | | | Interaction: Treatment x Sex | | F (1, 38) = .055 | | | .815 | |
|  |  | | | Main effect: Treatment | | F (1, 9) = .008 | | | .932 | |
|  |  | | | Main effect: Sex | | F (1, 38) = 2.418 | | | .128 | |
| Open Field - Mobility - P20 | Linear mixed model | | | Random effect: LitterID | |  | | | .308 | |
|  |  | | | Interaction: Treatment x Sex | | F (1, 41) = .686 | | | .412 | |
|  |  | | | Main effect: Treatment | | F (1, 10) = .279 | | | .608 | |
|  |  | | | Main effect: Sex | | F (1, 41) = .077 | | | .783 | |
| Open Field - Mobility - P25 | Linear mixed model | | | Random effect: LitterID | |  | | | .220 | |
|  |  | | | Interaction: Treatment x Sex | | F (1, 41) = 5.188 | | | **.028** | |
|  |  | | | Sidak post hoc: M CTL vs. M GBS III | |  | | | **.008** | |
|  |  | | | Sidak post hoc: F CTL vs. F GBS III | |  | | | .577 | |
|  |  | | | Sidak post hoc: M CTL vs. F CTL | |  | | | .115 | |
|  |  | | | Sidak post hoc: M GBS III vs. F GBS III | |  | | | .109 | |
| Open Field - Visited squares - P15 | Linear mixed model | | | Random effect: LitterID | |  | | | .471 | |
|  |  | | | Interaction: Treatment x Sex | | F (1, 39) = .055 | | | .440 | |
|  |  | | | Main effect: Treatment | | F (1, 8) = .008 | | | .845 | |
|  |  | | | Main effect: Sex | | F (1, 39) = 2.418 | | | .599 | |
| Open Field - Visited squares - P20 | Linear mixed model | | | Random effect: LitterID | |  | | | .196 | |
|  |  | | | Interaction: Treatment x Sex | | F (1, 40) = .046 | | | .831 | |
|  |  | | | Main effect: Treatment | | F (1, 10) = .005 | | | .947 | |
|  |  | | | Main effect: Sex | | F (1, 40) = .109 | | | .743 | |
| Open Field - Visited squares - P25 | Linear mixed model | | | Random effect: LitterID | |  | | | .127 | |
|  |  | | | Interaction: Treatment x Sex | | F (1, 40) = 5.386 | | | **.026** | |
|  |  | | | Sidak post hoc: M CTL vs. M GBS III | |  | | | .219 | |
|  |  | | | Sidak post hoc: F CTL vs. F GBS III | |  | | | .304 | |
|  |  | | | Sidak post hoc: M CTL vs. F CTL | |  | | | **.018** | |
|  |  | | | Sidak post hoc: M GBS III vs. F GBS III | |  | | | .539 | |
| Open Field - Number of lines - P15 | Linear mixed model | | | Random effect: LitterID | |  | | |  | |
|  |  | | | Interaction: Treatment x Sex | | F (1, 39) = .584 | | | .448 | |
|  |  | | | Main effect: Treatment | | F (1, 8) = .898 | | | .348 | |
|  |  | | | Main effect: Sex | | F (1, 39) = .126 | | | .724 | |
| Open Field - Number of lines - P20 | Linear mixed model | | | Random effect: LitterID | |  | | | .174 | |
|  |  | | | Interaction: Treatment x Sex | | F (1, 40) = .633 | | | .431 | |
|  |  | | | Main effect: Treatment | | F (1, 11) = .456 | | | .514 | |
|  |  | | | Main effect: Sex | | F (1, 40) = .931 | | | .931 | |
| Open Field - Number of lines - P25 | Linear mixed model | | | Random effect: LitterID | |  | | | .123 | |
|  |  | | | Interaction: Treatment x Sex | | F (1, 39) = 8.743 | | | **.005** | |
|  |  | | | Sidak post hoc: M CTL vs. M GBS III | |  | | | **.028** | |
|  |  | | | Sidak post hoc: F CTL vs. F GBS III | |  | | | .654 | |
|  |  | | | Sidak post hoc: M CTL vs. F CTL | |  | | | **.022** | |
|  |  | | | Sidak post hoc: M GBS III vs. F GBS III | |  | | | **.087** | |
| Open Field - Time centre - P15 | Linear mixed model | | | Random effect: LitterID | |  | | | .428 | |
|  |  | | | Interaction: Treatment x Sex | | F (1, 39) = .557 | | | .460 | |
|  |  | | | Main effect: Treatment | | F (1, 8) = .162 | | | .698 | |
|  |  | | | Main effect: Sex | | F (1, 39) = .370 | | | .547 | |
| Open Field - Time centre - P20 | Linear mixed model | | | Random effect: LitterID | |  | | | .953 | |
|  |  | | | Interaction: Treatment x Sex | | F (1, 44) = .341 | | | .562 | |
|  |  | | | Main effect: Treatment | | F (1, 12) = 1.585 | | | .231 | |
|  |  | | | Main effect: Sex | | F (1, 44) = 1.102 | | | .300 | |
| Open Field - Time centre - P25 | Linear mixed model | | | Random effect: LitterID | |  | | | .134 | |
|  |  | | | Interaction: Treatment x Sex | | F (1, 41) = .561 | | | .458 | |
|  |  | | | Main effect: Treatment | | F (1, 12) = .321 | | | .581 | |
|  |  | | | Main effect: Sex | | F (1, 41) = .497 | | | .482 | |
| *Treatment: 2 factors (CTL, GBS III), Repeated measures: Postnatal day (P) 35 and P65, One subject per litter* | | | | | | | | | | |
| Startle Magnitude - Habituation - P35, P65 | Repeated measures 2-way ANOVA | | | Within-subject: Interaction: P x Treatment x Sex | | F (1, 6) = .346 | | | .578 | |
|  |  | | | Within-subject: Interaction: P x Treatment | | F (1, 6) = .009 | | | .926 | |
|  |  | | | Within-subject: Interaction: P x Sex | | F (1, 6) = .649 | | | .451 | |
|  |  | | | Between-subject: Interaction: Treatment x Sex | | F (1, 6) = 1.592 | | | .254 | |
|  |  | | | Between-subject: Main effect: Treatment | | F (1, 6) = .180 | | | .686 | |
|  |  | | | Between-subject: Main effect: Sex | | F (1, 6) = .263 | | | .626 | |
| Startle Magnitude - Startle response - P35, P65 | Repeated measures 2-way ANOVA | | | Within-subject: Interaction: P x Treatment x Sex | | F (1, 9) = .005 | | | .948 | |
|  |  | | | Within-subject: Interaction: P x Treatment | | F (1, 9) = 1.972 | | | .194 | |
|  |  | | | Within-subject: Interaction: P x Sex | | F (1, 9) = 5.317 | | | **.047** | |
|  |  | | | Sidak post hoc: P35 M vs. P65 M | |  | | | **.019** | |
|  |  | | | Sidak post hoc: P35 F vs. P65 F | |  | | | .741 | |
|  |  | | | Sidak post hoc: P35 M vs. P35 F | |  | | | **.041** | |
|  |  | | | Sidak post hoc: P65 M vs. P65 F | |  | | | .132 | |
|  |  | | | Between-subject: Interaction: Treatment x Sex | | F (1, 9) = 1.045 | | | .333 | |
|  |  | | | Between-subject: Main effect: Treatment | | F (1, 9) = 15.775 | | | **.003** | |
|  |  | | | Between-subject: Main effect: Sex | | F (1, 9) = .229 | | | .644 | |
| *Treatment: 2 factors (CTL, GBS III), One subject per litter* | | | | | | | | | | |
| Corpus callosum (CC) - thickness | 2-way ANOVA | | | Interaction: Treatment x Sex | | F (1, 14) = 1.556 | | | .233 | |
|  |  | | | Main effect: Treatment | | F (1, 14) = .115 | | | .740 | |
|  |  | | | Main effect: Sex | | F (1, 14) = 3.399 | | | .087 | |
| Lateral ventricles - area | 2-way ANOVA | | | Interaction: Treatment x Sex | | F (1, 12) = .046 | | | .834 | |
|  |  | | | Main effect: Treatment | | F (1, 12) = 2.762 | | | .122 | |
|  |  | | | Main effect: Sex | | F (1, 12) = .066 | | | .801 | |
| Frontal M1 - thickness | 2-way ANOVA | | | Interaction: Treatment x Sex | | F (1, 14) = 5.455 | | | **.035** | |
|  |  | | | Sidak post hoc: M CTL vs. M GBS III | |  | | | **.009** | |
|  |  | | | Sidak post hoc: F CTL vs. F GBS III | |  | | | .907 | |
|  |  | | | Sidak post hoc: M CTL vs. F CTL | |  | | | .067 | |
|  |  | | | Sidak post hoc: M GBS III vs. F GBS III | |  | | | .218 | |
| Frontal M1 - GFAP density | 2-way ANOVA | | | Interaction: Treatment x Sex | | F (1, 14) = .093 | | | .193 | |
|  |  | | | Main effect: Treatment | | F (1, 14) = 1.873 | | | .365 | |
|  |  | | | Main effect: Sex | | F (1, 14) = 5.368 | | | **.036** | |
| Frontal M1 - Iba-1 density | 2-way ANOVA | | | Interaction: Treatment x Sex | | F (1, 14) = .504 | | | .489 | |
|  |  | | | Main effect: Treatment | | F (1, 14) = .254 | | | .622 | |
|  |  | | | Main effect: Sex | | F (1, 14) = 1.124 | | | .307 | |
| CC - MBP staining | 2-way ANOVA | | | Interaction: Treatment x Sex | | F (1, 13) = .560 | | | .468 | |
|  |  | | | Main effect: Treatment | | F (1, 13) = 8.573 | | | **.012** | |
|  |  | | | Main effect: Sex | | F (1, 13) = .020 | | | .889 | |
| CC - GFAP density | 2-way ANOVA | | | Interaction: Treatment x Sex | | F (1, 14) = 1.874 | | | .193 | |
|  |  | | | Main effect: Treatment | | F (1, 14) = .876 | | | .365 | |
|  |  | | | Main effect: Sex | | F (1, 14) = .349 | | | .564 | |
| CC - Iba-1 density | 2-way ANOVA | | | Interaction: Treatment x Sex | | F (1, 14) = 4.394 | | | **.055** | |
|  |  | | | Sidak post hoc: M CTL vs. M GBS III | |  | | | **.024** | |
|  |  | | | Sidak post hoc: F CTL vs. F GBS III | |  | | | .744 | |
|  |  | | | Sidak post hoc: M CTL vs. F CTL | |  | | | **.023** | |
|  |  | | | Sidak post hoc: M GBS III vs. F GBS III | |  | | | .757 | |
| *GraphPad Prism 7.04 - Linear regression* | | | | | | | | | | |
| Weight P25, Distance OF – CTL M | | Linear regression | | | Goodness of Fit | | R square = .031 |  | |
|  | |  | | | Slope significantly non-zero? | | F (1, 5) = .159 | .707 | |
| Weight P25, Distance OF – GBSIII M | | Linear regression | | | Goodness of Fit | | R square = .290 |  | |
|  | |  | | | Slope significantly non-zero? | | F (1, 12) = 4.909 | .**047** | |
| Weight P25, Distance OF – CTL F | | Linear regression | | | Goodness of Fit | | R square = .000 |  | |
|  | |  | | | Slope significantly non-zero? | | F (1, 11) = .008 | .930 | |
| Weight P25, Distance OF – GBSIII F | | Linear regression | | | Goodness of Fit | | R square = .115 |  | |
|  | |  | | | Slope significantly non-zero? | | F (1, 16) = 2.088 | .115 | |
| CC Iba-1 density, M1 thickness - CTL | Linear regression | | Goodness of Fit | | | | R square = .169 |  | |
|  |  | | Slope significantly non-zero? | | | | F (1, 6) = 1.223 | .311 | |
| CC Iba-1 density, M1 thickness - GBSIII | Linear regression | | Goodness of Fit | | | | R square = .693 |  | |
|  |  | | Slope significantly non-zero? | | | | F (1, 6) = 13.55 | **.010** | |

*Abbreviations: CTL: control, F: female, G: gestational day, GBS: group B Streptococcus, M: male, P: postnatal day*