

Figure S1:

| | | <i>W</i> | <i>p-value</i> |
|-----------------|--|----------|----------------|
| Figure 1 | A. miR-138-5p expression | 0.95 | 0.4677 |
| | B. Casp3 expression | 0.93 | 0.3075 |
| | C. pro-CASP-3 expression | 0.85 | 0.101 |
| Figure 3 | B. pro-CASP-3 expression after LGA stimulation | 0.91 | 0.391 |
| | C. cleaved-CASP-3 expression after LGA stimulation | 0.93 | 0.707 |
| Figure 4 | B. Caspase activity | 0.89 | 0.109 |
| | C. Neuronal density | 0.84 | 0.001 *** |
| Figure 5 | B. Neuronal survival | 0.72 | 0.943 |
| | C. Neuronal death | 0.98 | 0.987 |
| | D. Neuronal density | 0.8 | 0.00028 *** |
| Figure 6 | Differences between treatments at 1 d | 0.82 | 0.111 |
| | Differences between the two maturation times | 0.82 | 0.015 ** |

Figure S1. Normality analysis of the studied data. The table show the *W* and *p*-value of the statistical analyzes of normality performed on the data of the exposed results. ** and *** denote significant differences ($p < 0.01$ and $p < 0.001$, respectively) and, therefore, absence of normality.

Figure S2:**A**

| miR-138-5p | 1 d | 4 d | 7 d | 14 d | 18 d | | |
|---|-----------------|-----------------|-----------------|-----------------------|-----------------|------------|-----------|
| mean Δ Ct | 2.71 \pm 0.80 | 2.07 \pm 0.77 | 1.00 \pm 0.68 | 0.66 \pm 0.80 | 0.75 \pm 0.80 | | |
| 2 ^{-$\Delta\Delta$Ct} | 1.00 | 0.64 | 0.31 | 0.24 | 0.26 | | |
| (95% CI) | | (0.20 ; 2.02) | (0.10 ; 0.97) | (0.08 ; 0.76) | (0.08 ; 0.81) | | |
| ANOVA | df | F value | p-value | Tukey test p-value | 4 d - 1 d | n.s. | |
| | | | | | 7 d - 1 d | p < 0.001 | |
| | exp | 2 | 88.70 | | p < 0.001 | 14 d - 1 d | p < 0.001 |
| | days | 4 | 63.29 | | p < 0.001 | 18 d - 1 d | p < 0.001 |

B

| Casp3 | 1 d | 4 d | 7 d | 14 d | 18 d |
|-----------------------|------------------|------------------|------------------|------------------|------------------|
| mean Δ Ct | 14.28 \pm 1.47 | 15.01 \pm 1.64 | 14.88 \pm 1.60 | 16.38 \pm 1.33 | 16.87 \pm 1.59 |
| $2^{-\Delta\Delta$ Ct | 1.00 | 1.66 | 1.51 | 4.29 | 6.02 |
| (95% CI) | | (0.15 ; 18.11) | (0.14 ; 16.47) | (0.39 ; 46.85) | (0.55 ; 65.71) |

| ANOVA | df | F value | p-value | Tukey test p-value | 4 d - 1 d | n.s. |
|-------|----|---------|-----------|-----------------------|------------|----------|
| | | | | | 7 d - 1 d | n.s. |
| exp | 2 | 36.42 | p < 0.05 | | 14 d - 1 d | p = 0.05 |
| days | 4 | 6.86 | p < 0.001 | | 18 d - 1 d | p < 0.05 |

C

| miR-138-5p | 1 day | | 14 days | |
|------------------------|-----------------|-----------------|-----------------|-----------------|
| | Ctr | LGA | Ctr | LGA |
| mean ΔCt | 2.57 \pm 0.67 | 2.81 \pm 0.81 | 1.87 \pm 0.29 | 1.85 \pm 0.11 |
| $2^{-\Delta\Delta Ct}$ | 1.00 | 0.84 | 1.00 | 1.02 |
| (95% CI) | (0.39 ; 2.58) | (0.31 ; 2.70) | (0.55 ; 1.82) | (0.37 ; 2.81) |

Figure S2. Quantification and analysis tables for the RT-qPCR analysis of Figures 1 and 6. (A) and (B) Tables show the microRNA and mRNA expression of miR-138-5p and Casp3 as the mean ΔCt and the fold change $2^{-\Delta\Delta Ct}$ (values and limits in folds of the 95% CI) of four independent experiments per time. Statistical analysis was carried out through two-way ANOVA and Tukey post-hoc tests. (C) The table shows the expression of miR-138-5p as the mean ΔCt and the fold change $2^{-\Delta\Delta Ct}$ (values and limits in folds of the 95% CI) of three independent experiments per time.