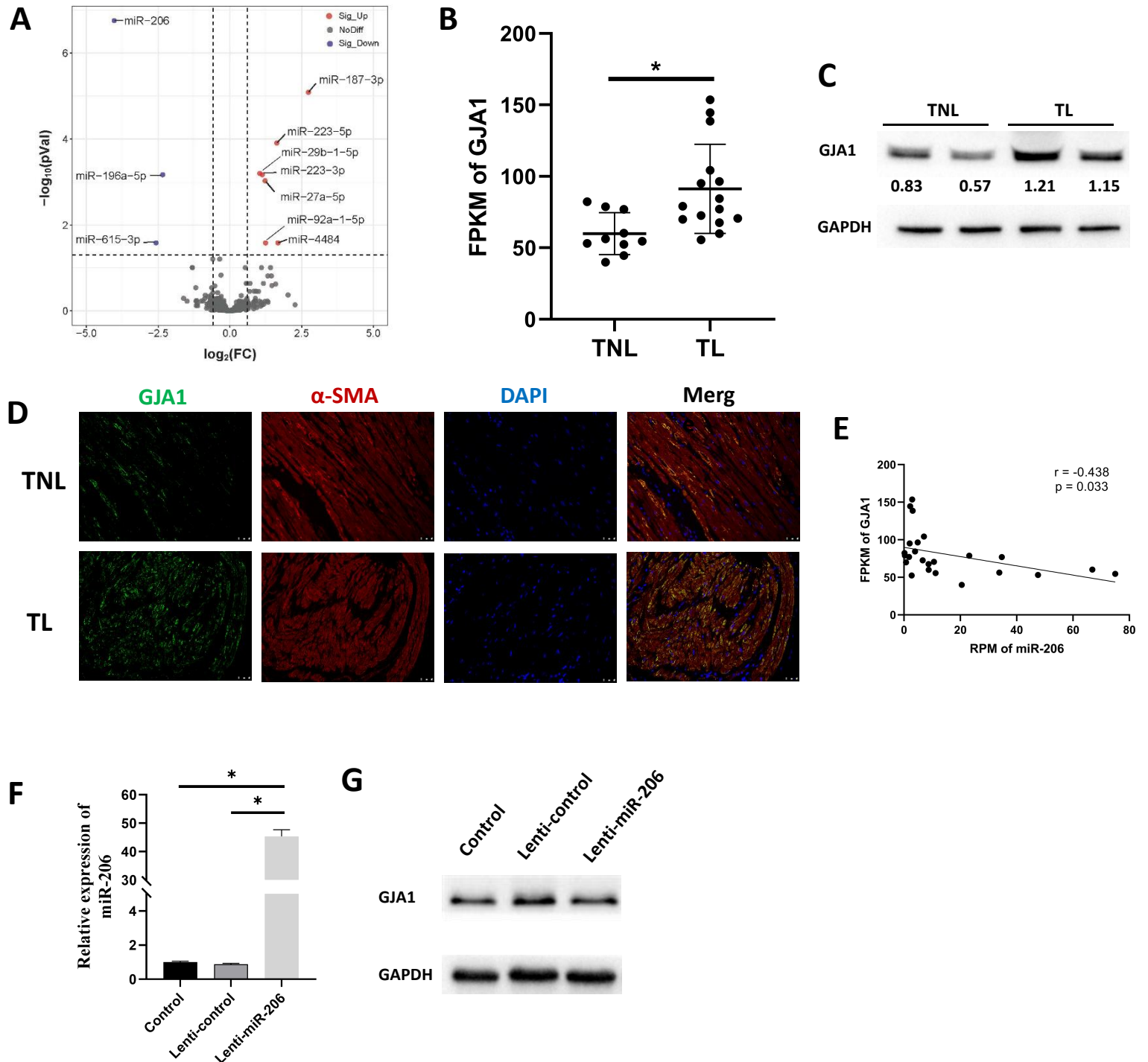
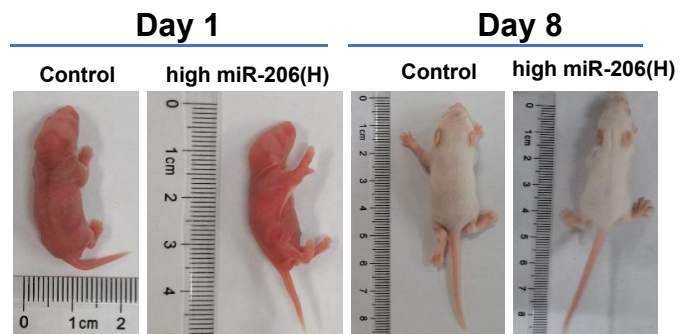
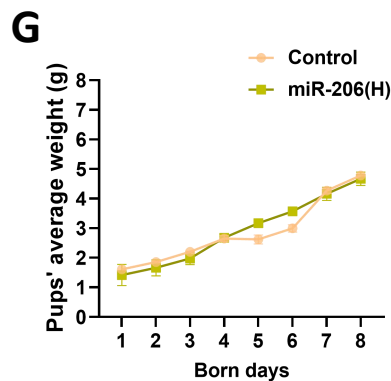
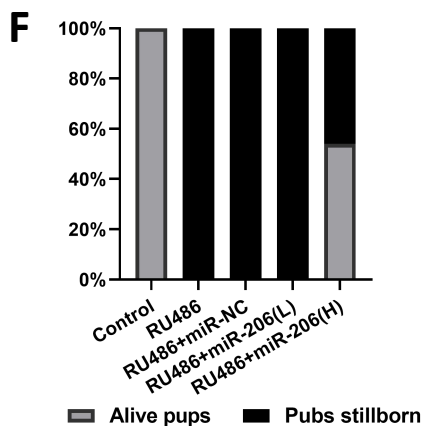
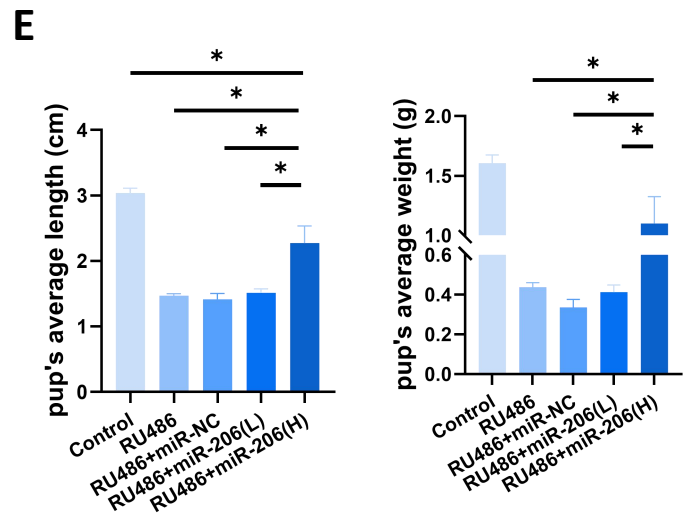
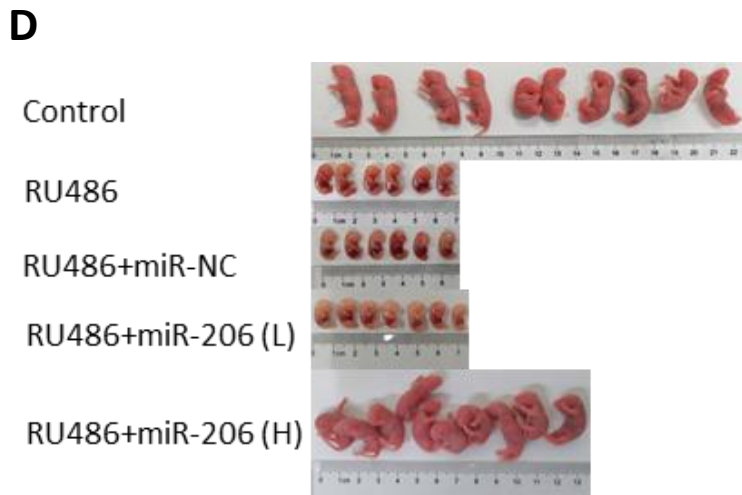
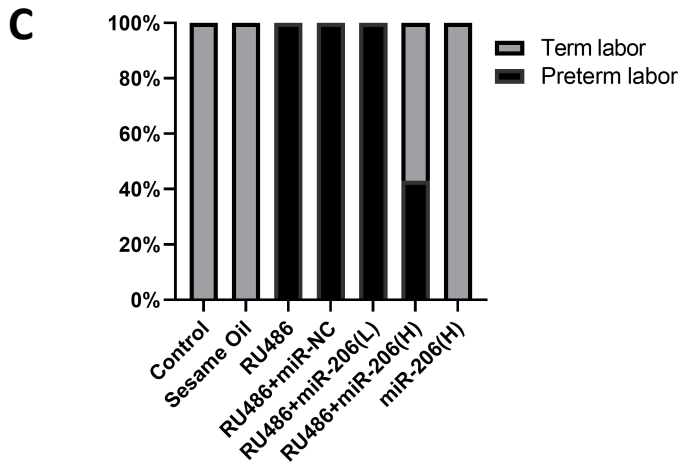
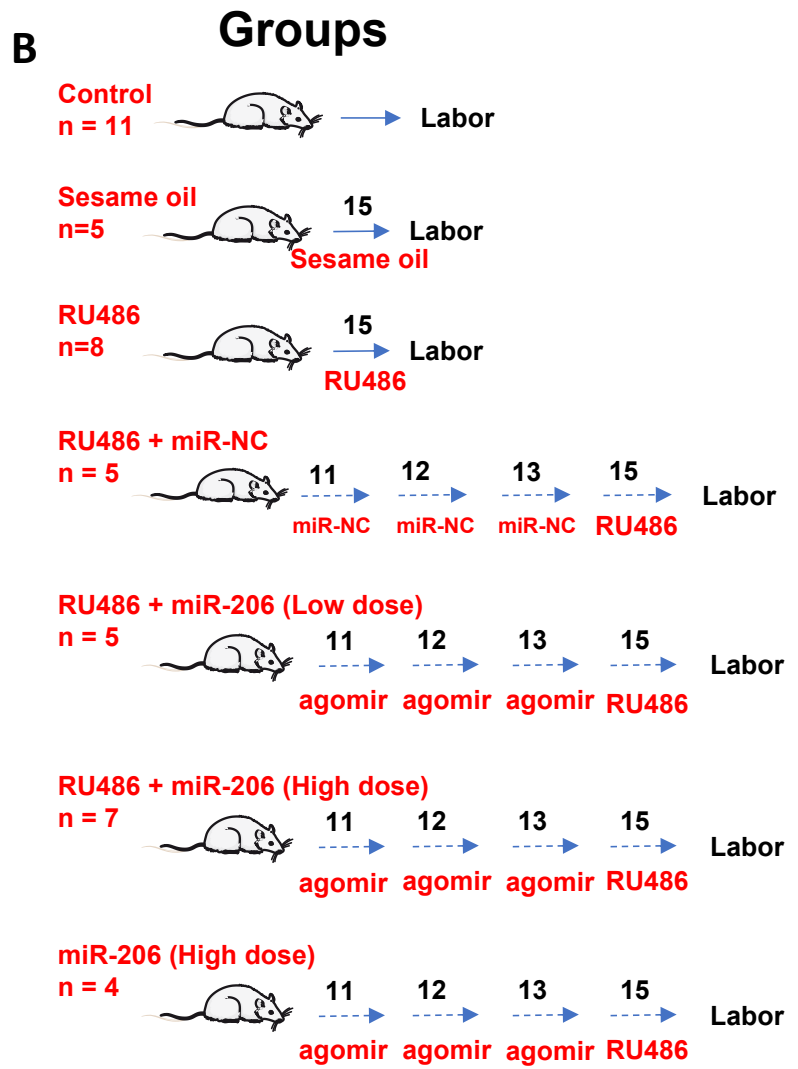
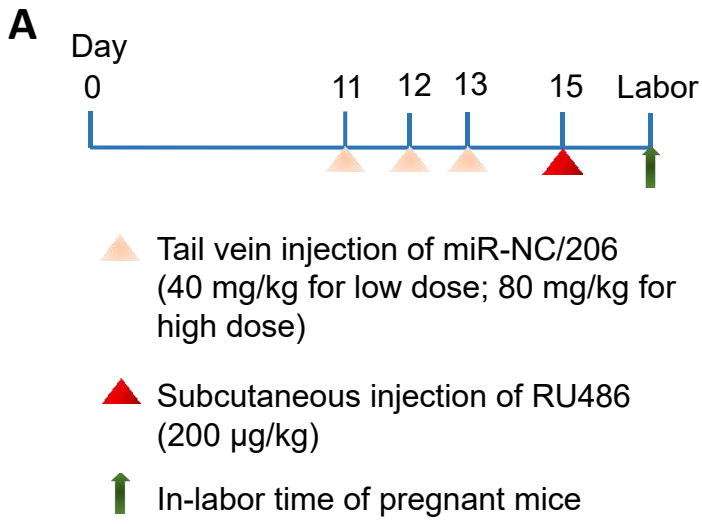


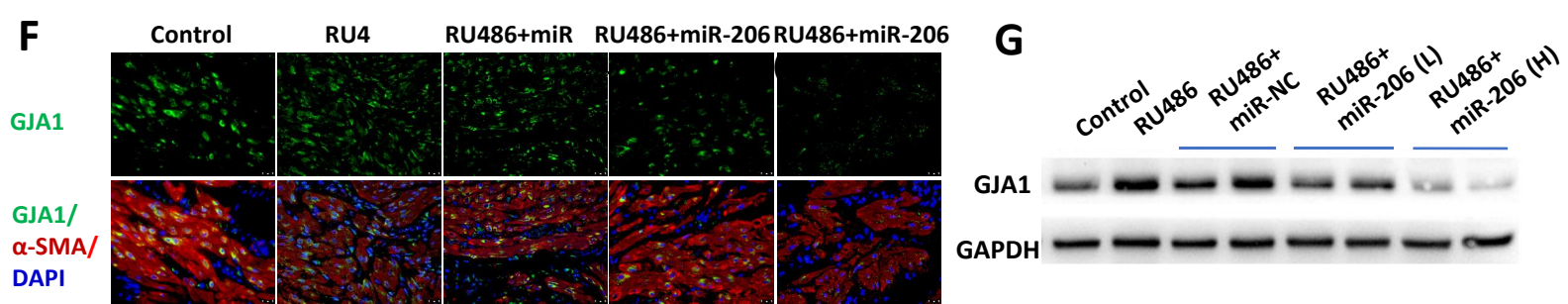
# Supplementary Figure 1



**Supplemental figure 1.** miR-206 is down-regulated in myometrium during labor and targets GJA1. (A) Volcano plot of miRNA expression in the myometrium of TNL vs TL women. (B) The expression of GJA1 in the RNA-seq data of myometrium of TNL vs TL women. (C) The proteins level of GJA1 in the myometrium of TNL vs TL women. (D) Immunofluorescence of GJA1 in the myometrium of TNL vs TL women. (E) The relationship of the expression of GJA1 and miR-206 in the myometrium of TNL vs TL women. (F) The mRNA expression of miR-206 after the overexpression of miR-206 in HMSMCs. (G) The protein expression of GJA1 after the overexpression of miR-206 in HMSMCs. \* $p < 0.001$ . TNL: Term non-labor; TL: Term labor; HMSMCs: Human myometrial smooth muscle cells.

Supplementary Figure 2





**Supplemental figure 2.** Overexpression of miR-206 in RU486-induced PTL mice. (A, B) The experimental schedule and grouping for miR-206 treatment in RU486-induced PTL mice. RU486 or sesame oil were subcutaneously injected at 15dpc; miR-206 agomir or miR-NC were tail vein injected 3 times (11, 12, and 13 days). (C) The percentage of preterm labor in seven groups. (D) The outcomes of pups in miR-206 overexpressed RU486-induced preterm labor mice. (E) Pups' average length and weight in five groups. (F) The alive proportion of mice delivered in the five groups. (G) The pups' average weight for 8 days after birth in control (n=3) and miR-206 (H) (n=2) groups. (H, I) Immunofluorescence (H) and western blot (I) analysis of GJA1 protein in myometrium in five groups. \*p<0.001. PTL: Preterm labor.