

SUPPLEMENTARY INFORMATION

Uterus-targeted liposomes for preterm labor management: studies in pregnant mice

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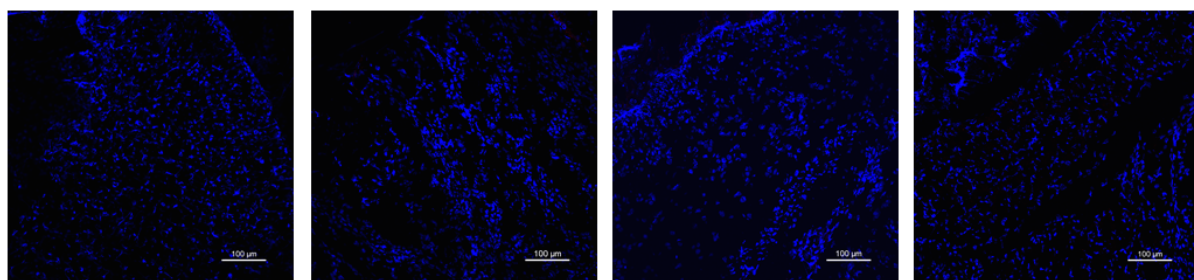
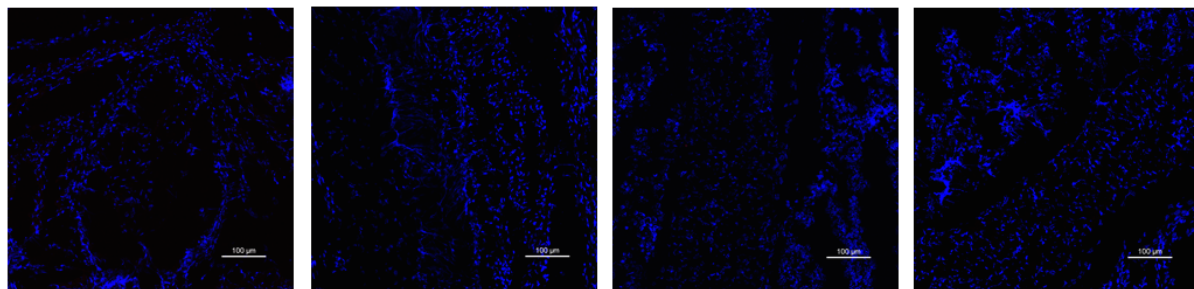
Shared last authorship

Calculation of ORA concentration in LIP-IND-ORA as compared to the human dose

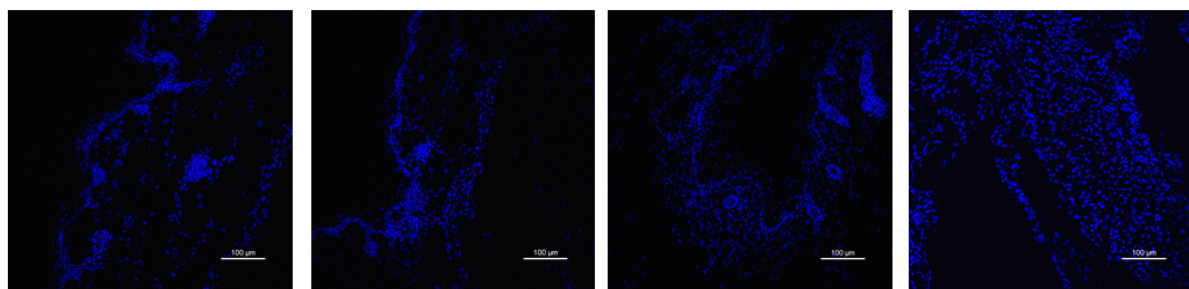
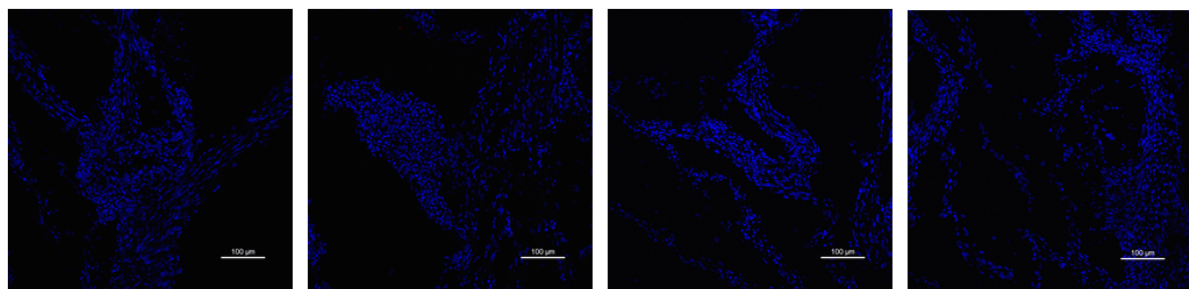
The dose of ORA was 35.8 µg/ mouse (~50g) or approximately 7mg/kg, which is, based on the accepted NIH conversion factors <https://ncifrederick.cancer.gov/lasp/acuc/frederick/Media/Documents/ACUC42.pdf> equivalent to human dose of 0.58 mg/kg.

In humans, ORA (Atosiban®) is given as an infusion in three steps: Initial loading dose of 6.75mg, followed by 300 µg/min for 3 hours (54mg) and up to 45 hours subsequent intravenous infusion at 100 µg/min. So the overall dose is in the range of 70-330mg/person or (considering the average weight of 60kg) 1.2-5.5 mg/kg. Thus, the given dose of ORA is below the physiologically relevant concentrations of the drug.

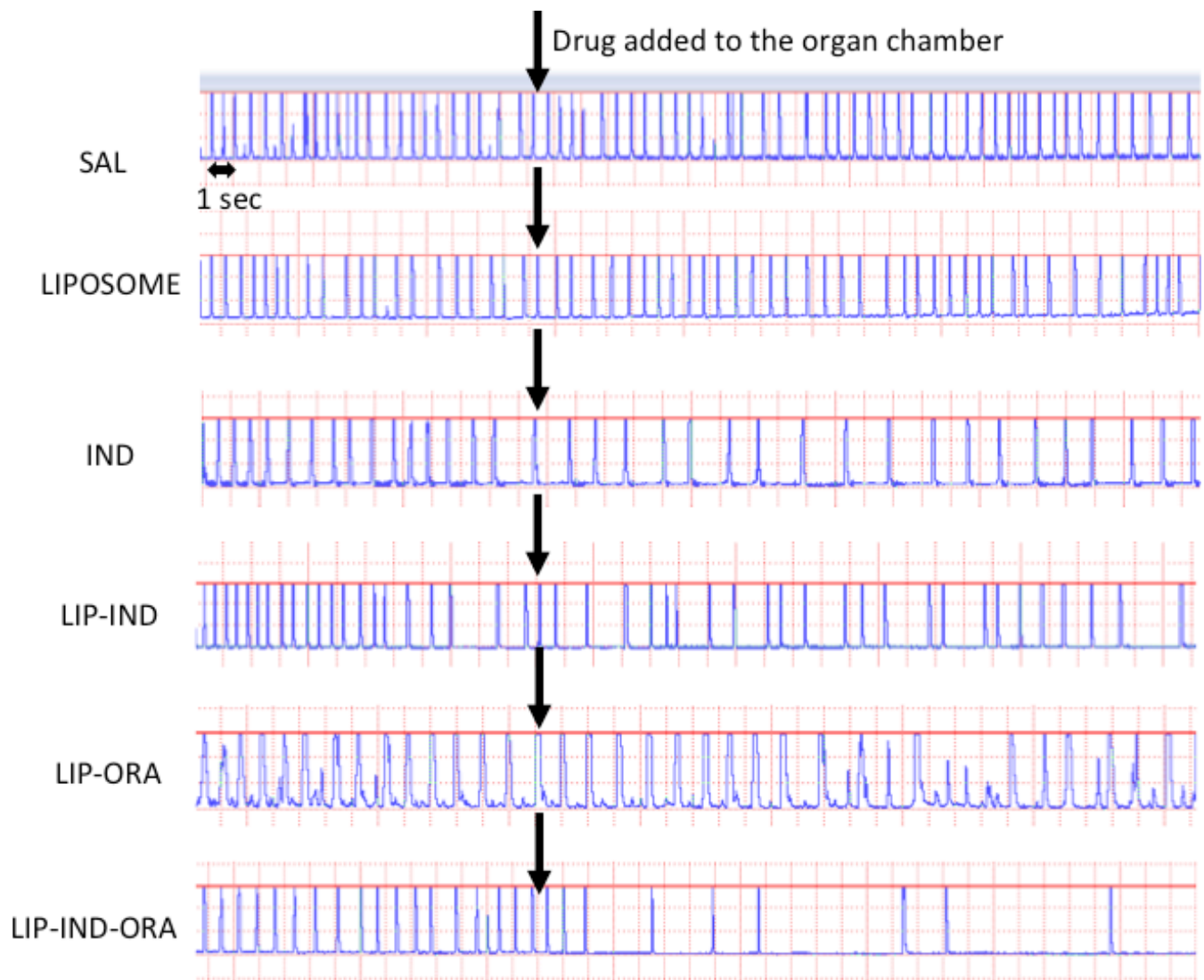
LIP-IND-ORA



Saline



Supplementary figure 1: Additional images of fetuses of mice injected with LIP-IND-ORA vs. SAL. LIP-IND-ORA were fluorescently labeled (red tag) with lissamin rhodamin, and the samples were counterstained with DAPI. The absence of red fluorescence proves the lack of penetration of the liposomes to the fetus.



Supplementary Figure 2: Representative myographs from ex vivo contractility experiments.