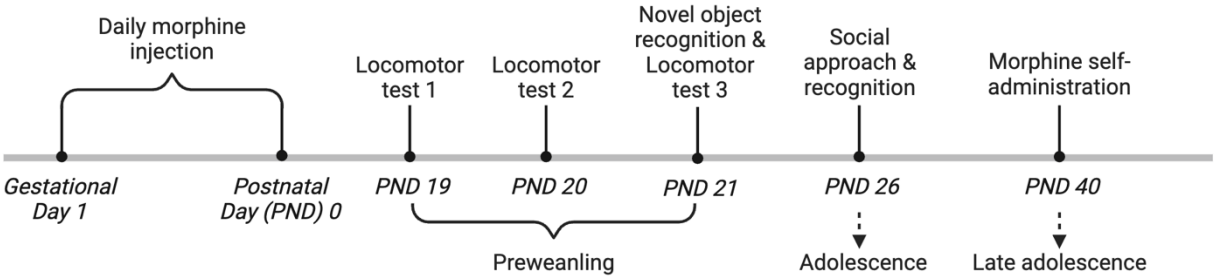
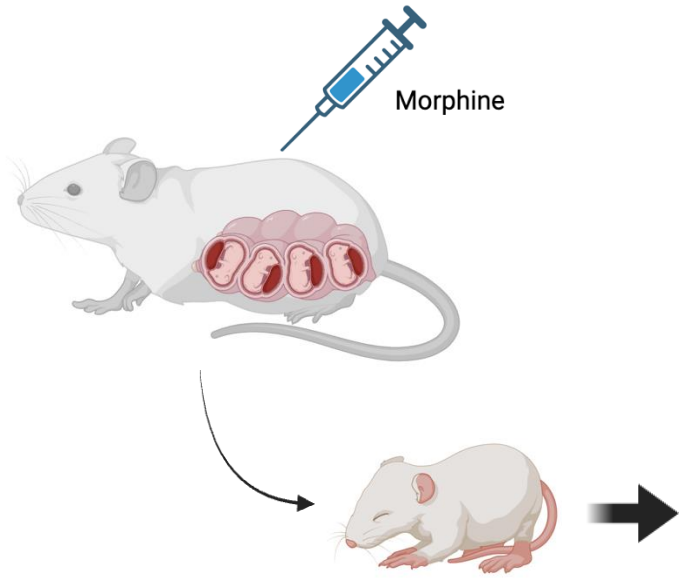
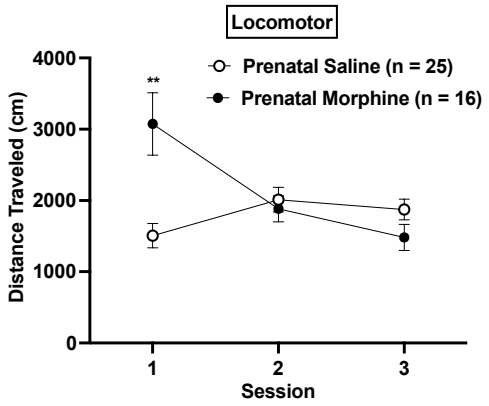
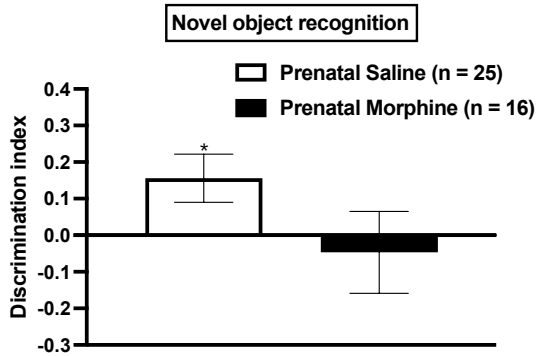
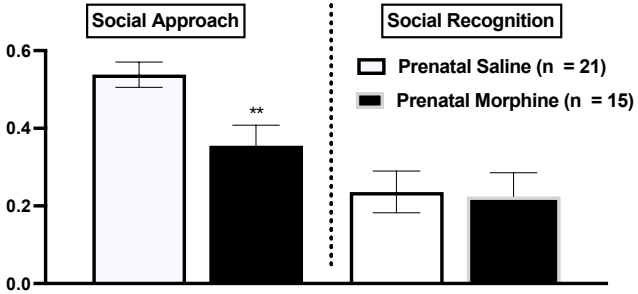
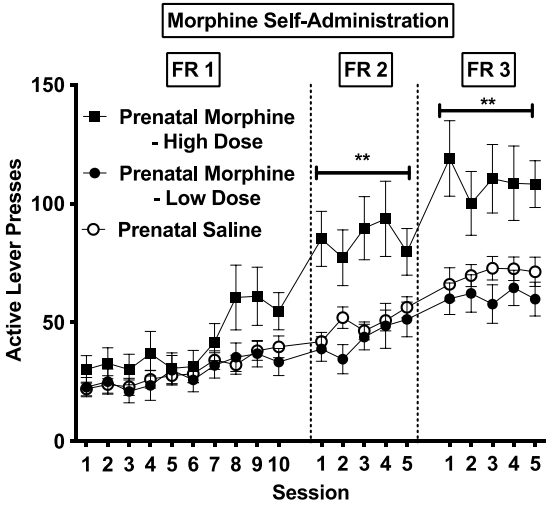

Daily morphine injection
Locomotor test 1
Locomotor test 2
Novel object recognition & Locomotor test 3
Social approach & recognition
Morphine self-administration
Gestational Day 1
Postnatal Day (PND) 0
PND 19
PND 20
PND 21
PND 26
PND 40
Preweanling
Adolescence
Late adolescence


Morphine


Locomotor
Prenatal Saline (n = 25)
Prenatal Morphine (n = 16)
Distance Traveled (cm)
4000
3000
2000
1000
0
**
1
2
3
Session


Novel object recognition
Prenatal Saline (n = 25)
Prenatal Morphine (n = 16)
Discrimination index
0.4
0.3
0.2
0.1
0.0
-0.1
-0.2
-0.3
*


Social Approach
Social Recognition
Prenatal Saline (n = 21)
Prenatal Morphine (n = 15)
0.6
0.4
0.2
0.0
**


Morphine Self-Administration
FR 1
FR 2
FR 3
Prenatal Morphine - High Dose
Prenatal Morphine - Low Dose
Prenatal Saline
Active Lever Presses
150
100
50
0
**
**
1 2 3 4 5 6 7 8 9 10 1 2 3 4 5 1 2 3 4 5
Session