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SED Sociedad Española del Dolor
AYUNTAMIENTO DE LEÓN
LEÓN CONGRESOS

Analgesic tolerance of morphine is prevented by modulation of D_4R at the spinal cord level

ID-86

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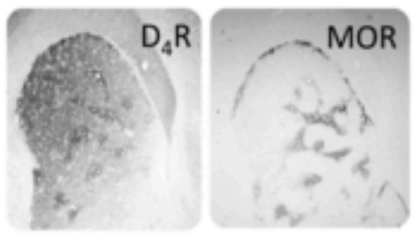
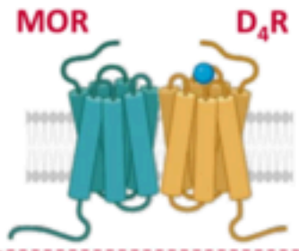
BACKGROUND



co-localiazation of D_4R and MOR in the **striosomes*** of the CPu

*involved in drug-habit formation and consolidation



antagonistic allosteric D_4R-MOR interaction

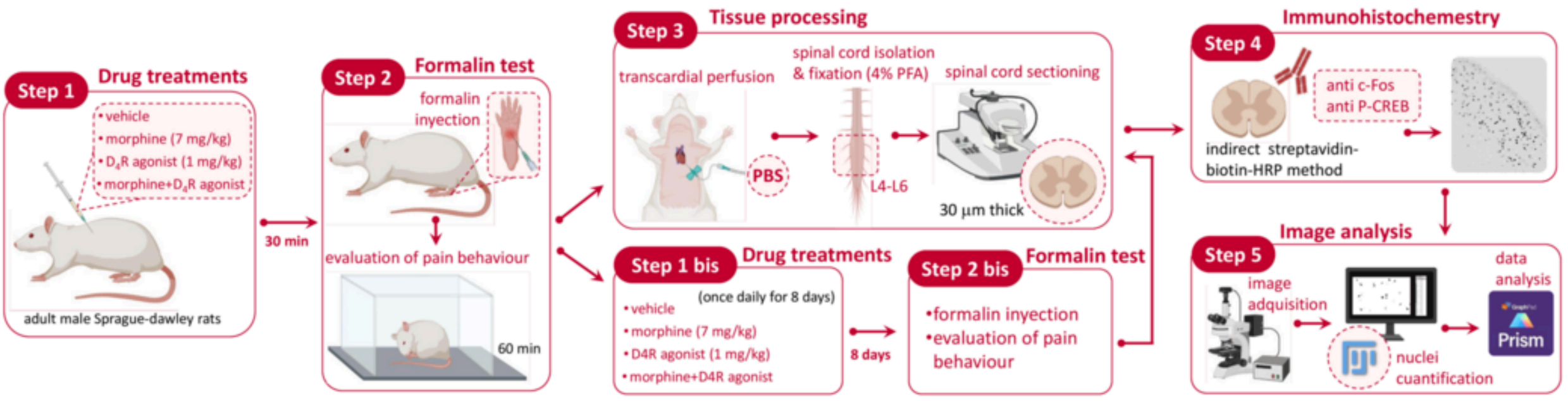
- Dopaminergic signaling
- Cellular & molecular neuroadaptations
- MOR sensitization

D_4R activation prevents morphine addiction without altering morphine-induced analgesia

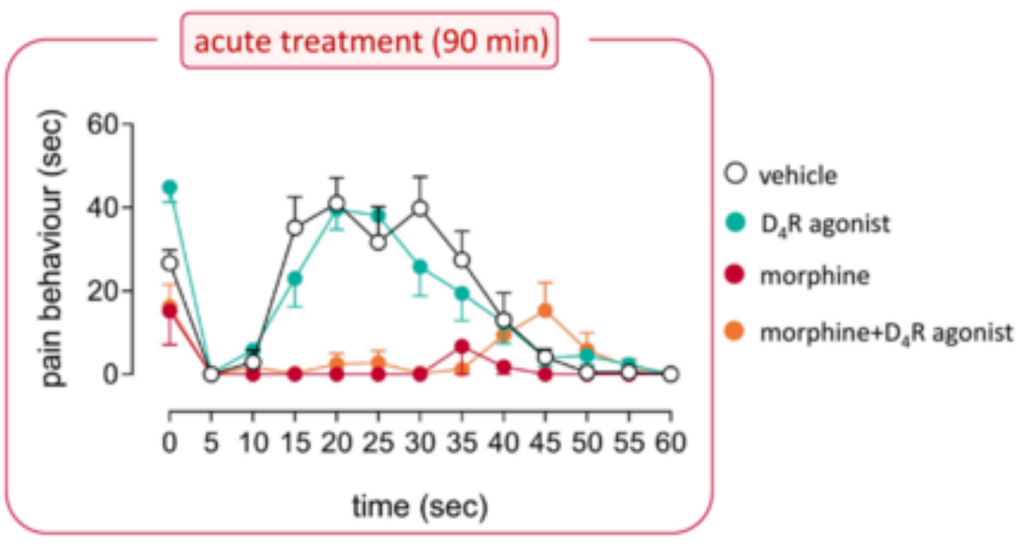
OBJECTIVE

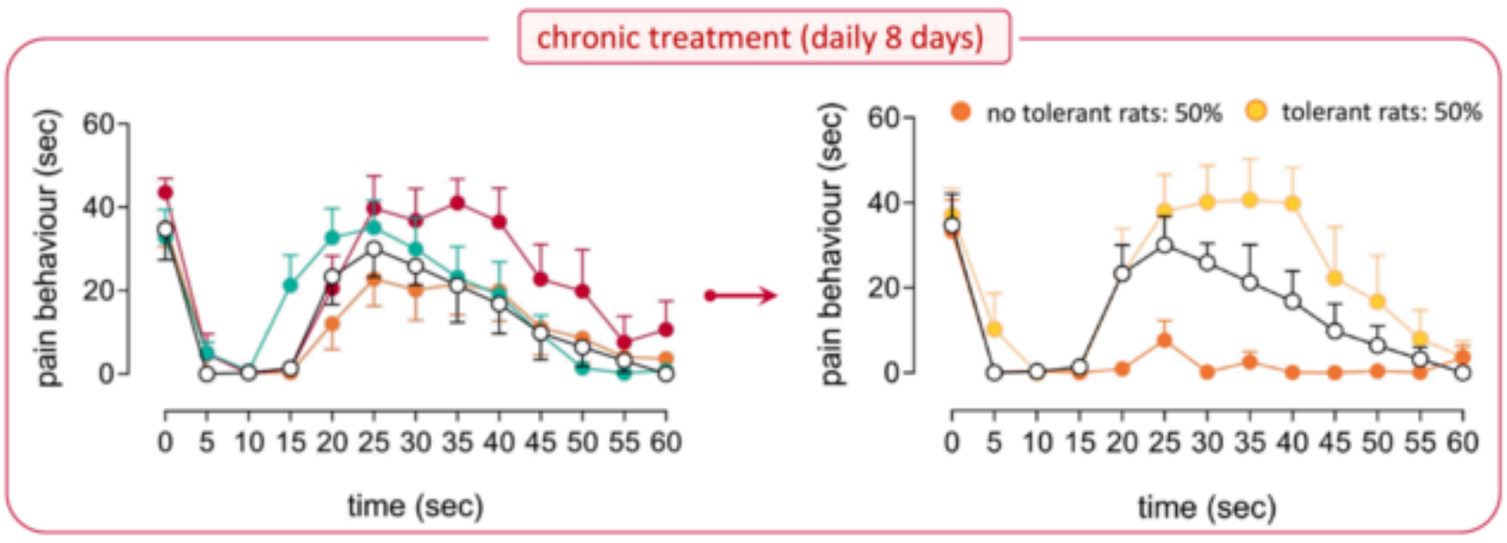
To explore the impact of a chronic treatment of morphine, alone or in combination with a specific D_4R agonist, in the development of analgesic tolerance and alterations in nociceptive circuits within the spinal cord

METHODS

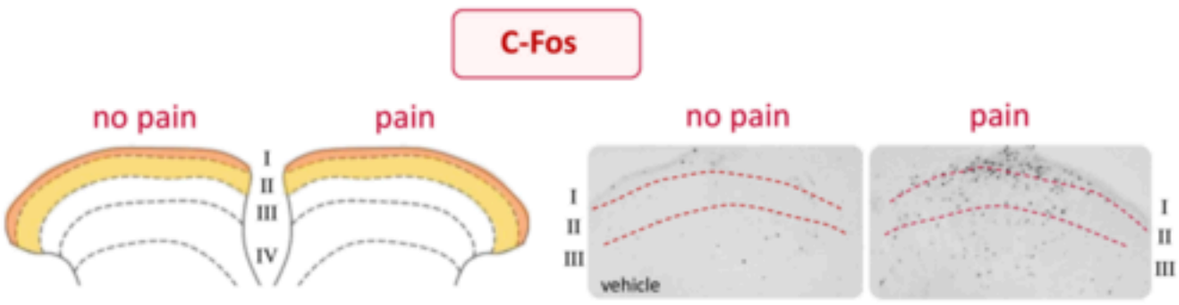


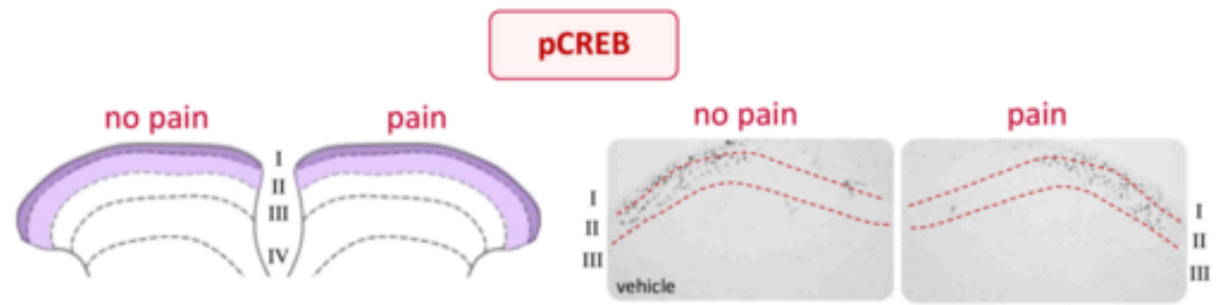
BEHAVIORAL RESULTS

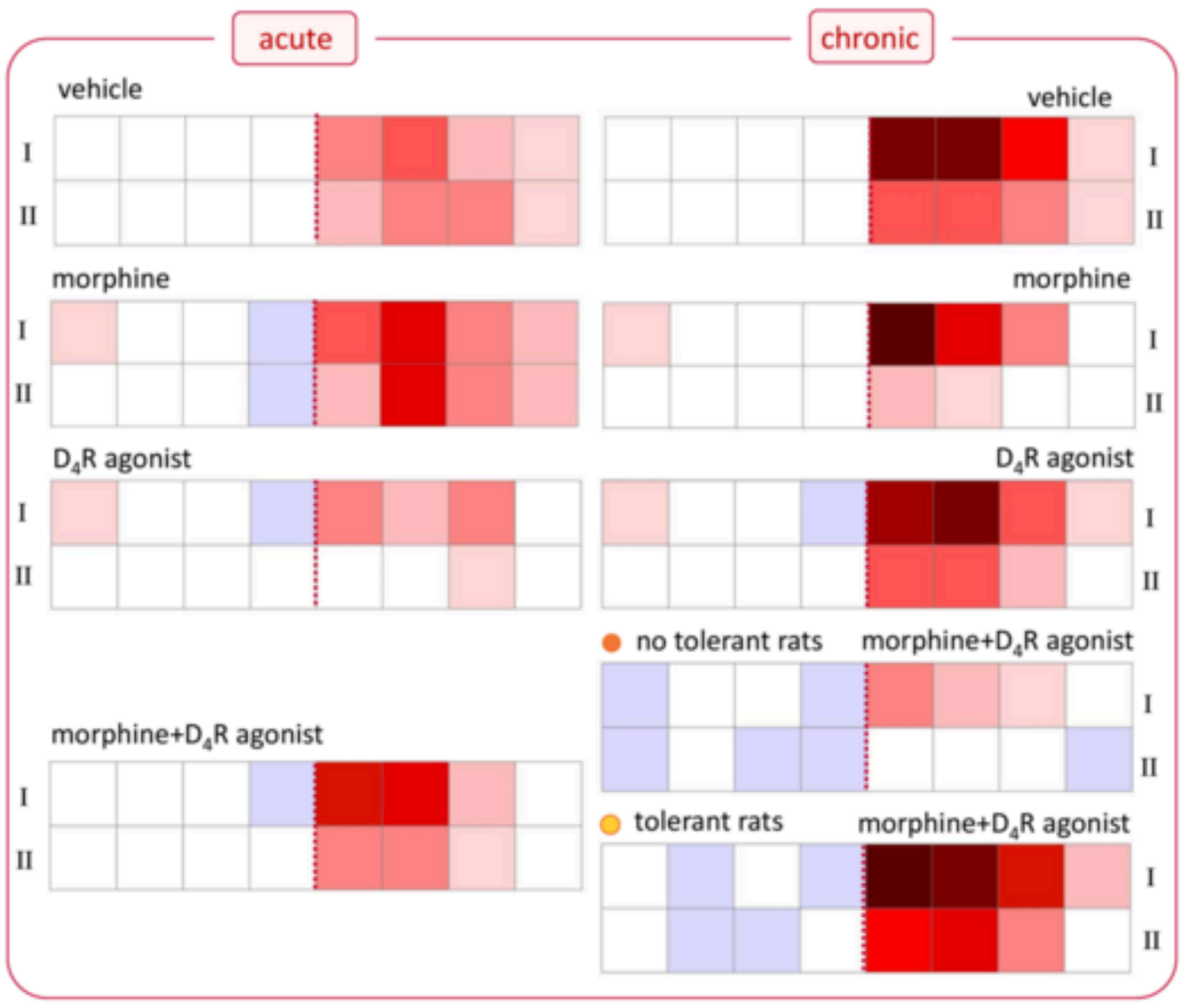


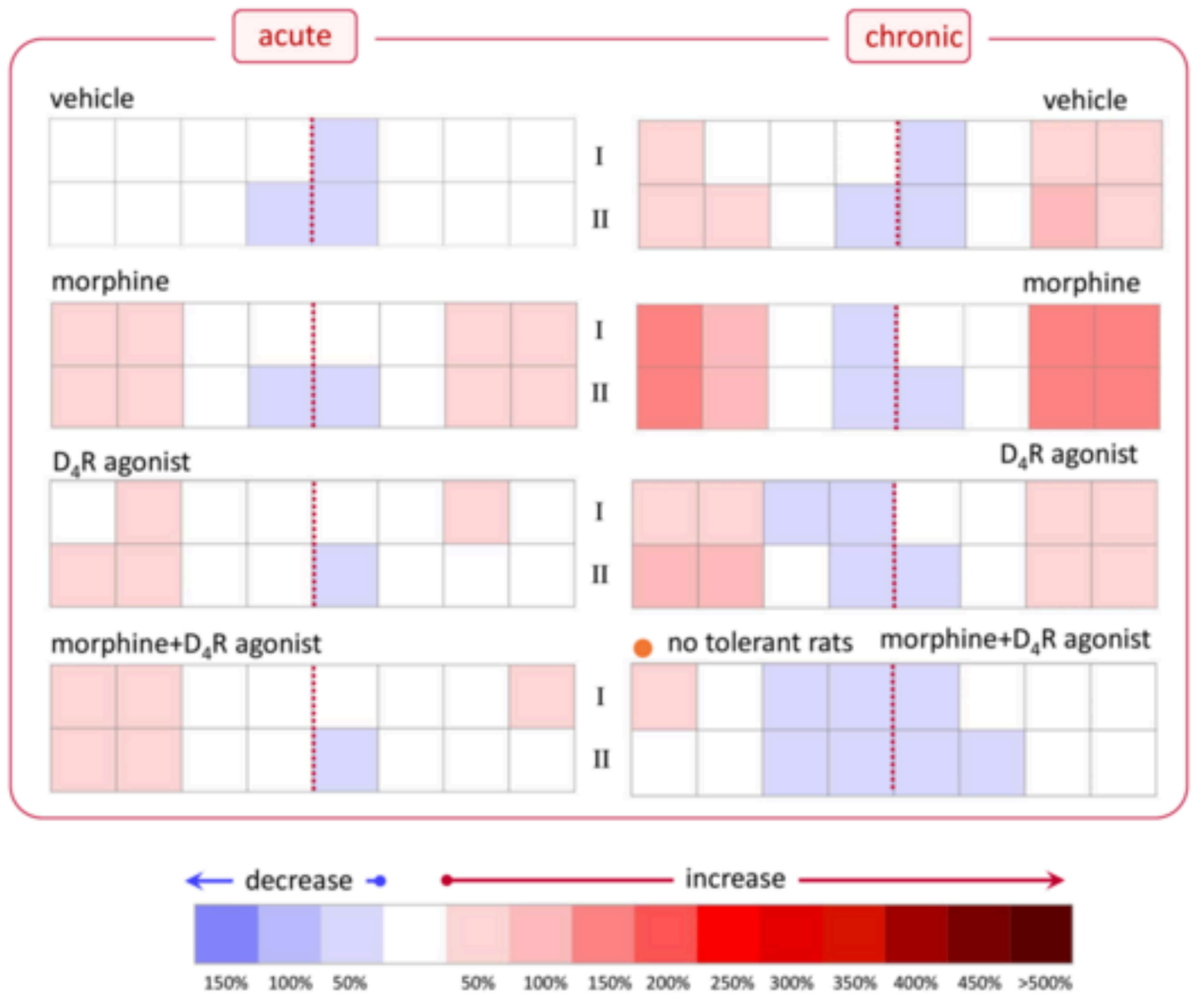


IMMUNOHISTOCHEMICAL RESULTS









CONCLUSIONS

1. D_4R activation prevents morphine-induced analgesic tolerance
2. The counteractive action of D_4R correlates with a specific signature of transcription factor expression in nociceptive pathways in laminae I-II in the dorsal horn

FUNDING

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