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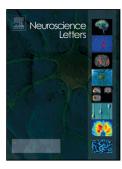
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## ACCEPTED MANUSCRIPT

# Orexin-A modulates excitatory synaptic transmission and neuronal excitability in the spinal cord substantia gelatinosa

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#### **Highlights**

- 1. Orexin-A depresses primary afferent-evoked excitatory synaptic transmission.
- 2. The orexin A-induced depression was exclusively mediated by OX<sub>1</sub>R.
- 3. Orexin-A reversibly increases spontaneous EPSC frequency through both OX<sub>1</sub>R and OX<sub>2</sub>R.
- 4. Or exin-A induces oscillation and inward current through both  $OX_1R$  and, to a great extent,  $OX_2R$ .

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