

1 **Supplementary information**

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3 **Therapeutic effects of diclofenac, pregabalin, and duloxetine on disuse-induced**
4 **chronic musculoskeletal pain in rats**

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9 **Movie S1.** A highly magnified part of the transitional third and fourth lumbar spine
10 vertebrae observed from between the spinous process of Th13 and of L1. Lumbar
11 puncture was performed between L4 and L5; 1% Evans blue dye (EBD) was
12 intrathecally administered and photographed in the medullary cavity through the
13 Th13–L1 intervertebral space. When 10 μ l EBD was injected, it did not sufficiently
14 reach to L4 vertebrae of spinal cord. When 20 μ l EBD was injected, it sufficiently
15 reached to the L4 spinal vertebrae. Based on this, we selected to use 20 μ l of DAMGO
16 by lumbar puncture as a dose in this experiment.

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18 **Movie S2.** Condition of paralysis of both hind limbs after intrathecal administration of
19 lidocaine by lumbar puncture. 2% Lidocaine (10 μ l) or 1% Lidocaine (20 μ l) was
20 injected from between the L4-5 intervertebral space. When 10 μ l lidocaine was
21 administered, hind paw showed response to pinch stimulation. On the contrary,
22 response to pinch stimulation in the hind paw disappeared when 20 μ l lidocaine was
23 administered. This confirmed that 20 μ l was sufficient to paralyze the hind paws.
24 Based on the intrathecal administration experiment of Evans blue dye (Movie S1) and
25 the results of this study, the dose of DAMGO by lumbar puncture in this experiment
26 was set to 20 μ l.