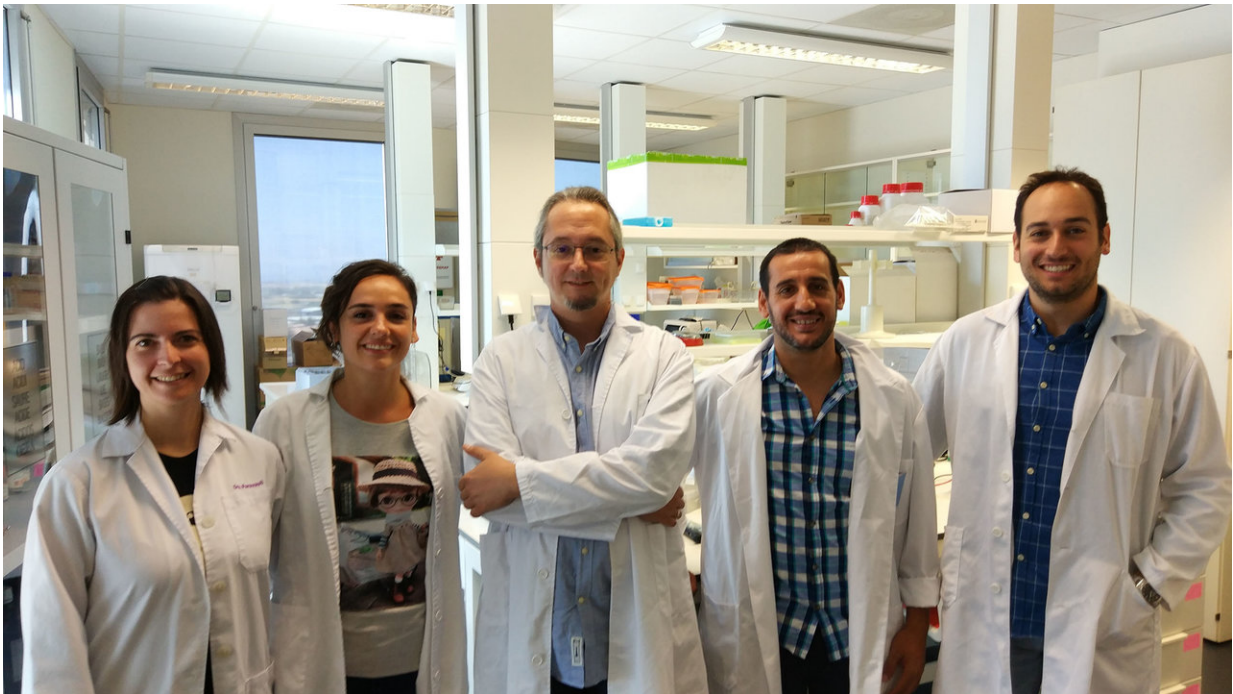


Scientists open the door to the development of better analgesics for treating joint pain

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UGR researchers that carried out the study. From left to right: Gloria Perazzoli, Ángeles Montilla García, Enrique J Cobos del Moral, José Manuel Entrena Fernández and Miguel Ángel Tejada Giráldez. Credit: University of Granada

Researchers from the University of Granada have led a novel study in mice which shows that neurons mediating joint pain are different from those mediating cutaneous pain

Functional alterations in patients with arthritis negatively affect their quality of life, making daily tasks difficult, tasks that seem simple to a healthy person (such as opening a bottle, holding a cup or toothbrush, reading the newspaper or cutting a piece of bread with a knife).

This decrease in the physical function of arthritic patients can be quantified in rheumatology consultations by measuring the [grip strength](#) of the affected limb. The decrease in [grip](#) strength is directly proportional to both the progression of the disease and the [pain](#) suffered by the patient, since both are intimately related.

For the development of new analgesics it is necessary to use animal models that resemble the patient's situation as much as possible. However, despite the clinical importance of grip strength, this parameter is rarely used in preclinical research (that is, in animal experiments). However, the predominant experimental paradigm in rodent research is based on our knowledge of cutaneous pain, which occurs when the skin receives a sensory stimulus.

Scientists from the University of Granada (UGR) belonging to the Department of Pharmacology and to the Institute of Neuroscience (Biomedical Research Center of Granada) have led a study in collaboration with the pharmaceutical company Esteve and the Teófilo Hernando Institute for Drug Discovery (Spain). This study shows that [grip strength](#) in mice with arthritis can be used for the evaluation of analgesics, and that [sensory neurons](#) mediating joint pain are different from those mediating cutaneous pain. Therefore, drugs that produce analgesia in cutaneous pain do not necessarily have to produce it in joint pain.

"Further studies of this type could lead to the development of better analgesics, specifically aimed at relieving [joint pain](#)," says Enrique J. Cobos del Moral, director of this work and researcher at the Department

of Pharmacology and the Institute of Neurosciences of the University of Granada.

More information: Ángeles Montilla-García et al. Grip strength in mice with joint inflammation: A rheumatology function test sensitive to pain and analgesia, *Neuropharmacology* (2017). [DOI: 10.1016/j.neuropharm.2017.07.029](https://doi.org/10.1016/j.neuropharm.2017.07.029)

Provided by University of Granada

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