

# New therapeutic targets for osteoarthritis pain

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Lateral view of a left osteoarthritic knee. Credit: David A. Walsh and Joanne Stocks

A new review by David A. Walsh and Joanne Stocks in the [September 2017 issue of \*SLAS Discovery\*](#) (formerly the *Journal of Biomolecular Screening*) explores evolving treatments and future therapies for osteoarthritis (OA) pain.

It covers the limitations of existing treatments and introduces the latest understanding of the complex mechanisms behind OA pain, which offers exciting new possibilities and potential new treatment targets. Recent patents registered suggest that areas of future OA therapies could target inflammation, bone and cartilage; sensory nerves; tissue engineering and dietary supplements.

Two new areas of intensive research, which are discussed, are the use of combination therapies and the development of biomarkers to target effective pain treatment. Due to the multiple mechanisms of the disease, pharmacological therapies alone may not work and instead require combining with psychological and physiotherapeutic approaches. The potential of imaging, genetic or wet biomarkers to predict pain and to stratify patients most likely to benefit from specific treatment is explored. Combining biomarkers that cross different disciplinary boundaries might increase their value in predicting treatment need or outcome.

Through increased understanding of the mechanisms that underlie OA pain, new drugs could also come from re-purposing those developed for other conditions as well as novel compounds which target [pain](#) mechanisms specific to the joint.

OA is the most common form of arthritis, yet unfortunately, the most effective [treatment](#) currently available for improving quality of life is [total joint replacement](#).

**More information:** David A. Walsh et al, New Therapeutic Targets for Osteoarthritis Pain, *SLAS DISCOVERY: Advancing Life Sciences R&D* (2017). [DOI: 10.1177/2472555217716912](https://doi.org/10.1177/2472555217716912)

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