

Possible new approach to fighting chronic inflammatory diseases

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(Medical Xpress) -- Researchers from The University of Queensland's Institute for Molecular Bioscience have discovered a potential new approach to treating chronic inflammatory diseases such as arthritis.

Professor David Fairlie and his colleagues have developed an [experimental treatment](#) that has proven effective at reducing symptoms and stopping the progression of the disease in models of arthritis.

“Human enzymes called proteases stimulate the secretion of immune cells that, when the correct amount is released, play important roles in digestion, fighting infections and healing wounds,” Professor Fairlie said.

“But in chronic [inflammatory diseases](#) such as arthritis, these enzymes continuously stimulate the release of immune cells, which cause inflammation when present at high levels. This leads to ongoing tissue damage.”

Professor Fairlie and his team have developed experimental compounds that block this stimulation and successfully reduce chronic inflammatory arthritis in experimental models.

If the treatment could be transferred to humans, it has the potential to reduce both the health and economic impacts of [chronic inflammatory diseases](#).

Almost four million Australians suffer from chronic joint pain and disability caused by various forms of arthritis, including osteoarthritis, rheumatoid [arthritis](#) and gout.

Related healthcare and loss of employment cost Australia over \$20 billion per year, an amount that is expected to increase dramatically as our population ages.

These promising new findings are published in the current hard-copy edition of *The Federation of American Societies For Experimental Biology Journal*, the world's most cited scientific journal in biology.

More information: Journal subscribers can access the paper at this address: bit.ly/Pg8lgk

Provided by University of Queensland

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