

Australia explores use of antidepressants to treat nerve pain

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The team is aiming to provide the scientific basis that leads to the design of more effective drugs



Researchers at Australia's national science agency Commonwealth Scientific and Industrial Research Organisation (CSIRO) have shown for the first time how tricyclic antidepressants (TCAs) work against nerve pain, paving the way for further research and new therapies to treat the debilitating condition.

Nerve pain affects 1 in 20 Australians. It is usually chronic and can be experienced for a range of reasons such as cancer, diabetes, trauma, infection, and multiple sclerosis. Its symptoms vary from shooting or throbbing pain, burning, freezing or electrical shock sensations, tingling, itchiness, oversensitivity or numbness.

Although TCAs are frequently prescribed for nerve pain, why and how they work to reduce pain hasn't been fully understood until now.

CSIRO scientist and leader of the research, Adjunct Professor Peter Duggan said he hoped the discovery would lead to the development of a new type of drug that worked in a similar way, without any potential side effects.

"These types of antidepressants are commonly used to treat pain, so we know they can be effective, but until now we haven't understood what is happening at a cellular level," Adjunct Professor Duggan said.