Oxytocin may treat abdominal pain

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Professor Alewood from UQ's IMB has developed a molecule that showed significant potential in alleviating abdominal pain.

(Medical Xpress)—Australian researchers have found a key to treating chronic abdominal pain may lie in a hormone that induces labour and encourages social bonding.

The researchers, led by The University of Queensland's Professor Paul Alewood from and the University of Adelaide's Dr Stuart Brierley, have developed a version of the hormone oxytocin to treat chronic abdominal pain associated with conditions such as irritable bowel syndrome.

Oxytocin is known as 'the love drug' for its ability to enhance social

interactions including maternal behaviour, partnership and bonding.

Professor Alewood, from UQ's Institute for Molecular Bioscience, said the molecule they had developed – a version of oxytocin with improved stability – showed significant potential in alleviating abdominal pain.

"It can potentially survive in the digestive tract until it reaches the gut," he said.

"This molecule acts on oxytocin nerve receptors in the bowel, which display increased sensitivity in conditions such as irritable bowel syndrome."

Professor Alewood said it had no effect on healthy gut tissue, which was an important advantage in drug development where minimising side effects is crucial.

Chronic abdominal pain is a major health problem, with irritable bowel syndrome alone affecting around 11 per cent of the Western population.

Despite the high number of sufferers, there are currently no drugs that directly treat abdominal pain.

The research was published overnight in the scientific journal *Nature Communications*.

Provided by University of Queensland

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