

A NOVEL, SELECTIVE OXYTOCIN ANALOGUE



Researchers at the Institute for Molecular Bioscience at The University of Queensland (UQ) have developed a novel agonist of the human oxytocin (OT) receptor. This agonist has 1000 fold higher affinity for the human OT receptor, relative to the three closely related human vasopressin receptors. UQ's human OT analogue has improved selectivity, compared to current OT agonists in clinical use, and may allow for targeted therapies, with improved safety, for several chronic disease indications.

Market Need and Opportunity

Oxytocin (and the long-acting analogue carbetocin) is clinically used to induce and augment labour and control postpartum haemorrhaging.

However, there is an abundance of recent scientific evidence suggesting a role for OT in additional physiological processes, as well as potential dysregulation of OT, or its cognate receptor, in disease states. OT, therefore, has applications for the following indications:

- Psychiatric Diseases - autism, schizophrenia, anxiety, stress and depression
- Cancer - breast (therapeutic and imaging applications), ovarian and endometrial carcinomas
- Life Style Drug - trust, bonding and sexual dysfunction (Preclinical)
- Pain - chronic headache
- Fertility - male

OT is also one of a limited number of peptide drugs that may be delivered to the central nervous system via intra-nasal injection.

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