BioSpectrum
the business of Bio & Health Sciences
ASIA EDITION

Australia's breakthrough in search for Motor Neurone Disease treatment

July 8, 2026 | News

To develop safer, more effective drugs with fewer side effects

Australia-based University of Queensland (UQ) researchers have developed a drug that activates a hard-to-target immune receptor — a breakthrough which could lead to new treatments for neurodegenerative conditions like Motor Neurone Disease (MND).

In an international collaboration with the Indian Institute of Technology, The University of Tokyo and Sungkyunkwan University, the researchers were able to uncover the molecular make-up of a receptor found on the surface of many immune cells called C5aR2.

Professor Trent Woodruff, from UQ's School of Biomedical Sciences, said the new drug provides a unique tool to study C5aR2 in detail, opening new possibilities for anti-inflammatory therapies. "The drug we developed as part of this study, called R8Y, is a molecule that specifically binds to C5aR2," said the researchers.

The UQ team is now working to develop even better anti-inflammatory drugs for hard-to-treat neurodegenerative diseases like MND, Parkinson's and Alzheimer's.

The research was funded by FightMND and a National Health and Medical Research Council grant.