Promising new treatments for multiple sclerosis

August 15 2014

(Medical Xpress)—New treatments for multiple sclerosis (MS) using common anti-psychotic agents have been discovered by Victoria University of Wellington researchers.

The study led by Dr Anne La Flamme, an associate professor in the School of Biological Sciences and head of the MS research programme at the Malaghan Institute of Medical Research, based at Victoria, shows the potential of clozapine and risperidone to effectively treat MS.
MS, a neurological disease which affects one in every 1,400 New Zealanders, is caused by immune cells invading the brain and causing inflammation. It leads to impaired vision and coordination and, eventually, paralysis, explains Dr La Flamme.

"While disease-modifying drugs are currently available, they are often effective in only a subpopulation of MS patients and all of these treatments target the disease through traditional immune pathways," she says.

"What makes our findings so important is that clozapine and risperidone target a very different set of pathways from all other MS drugs, and thus have the potential to treat those MS populations for which no effective therapies currently exist."

Published this week by international scientific journal *PLOS ONE*, the study demonstrates that risperidone and clozapine can reduce MS significantly by reducing the inflammation in the brain that causes this disease.

Additionally, this research indicates that the way clozapine and risperidone improve disease outcomes in MS is different from how these agents work to treat mental health disorders.

"By utilising existing therapies, this work may more quickly support improved outcomes for people with MS," says Dr La Flamme.

**More information:** The PLOS ONE article can be viewed online here: [www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0104430](http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0104430)