

8. DISEASE MODELS

PROJECT:

New viral-mediated TDP-43 mouse models of MND

A major barrier to developing new, effective treatments for MND is the lack of suitable animal models to test their safety and effectiveness. Animal models are slow and expensive to make, and often do not fully replicate the causes and symptoms of MND in people. This project is using the latest 'viral' technology to create new mouse models of MND that are faster and more cost-effective to generate. The viral technology will be used by investigators to introduce aberrant TDP-43 protein into motor neurons to make them unwell, which is a highly relevant pathology present in 97% of MND cases.

KEY HIGHLIGHTS:

Dr Adam Walker is the inaugural Bill Guest Mid-Career Research Fellow. This project will develop a faster and more cost-effective way to generate mouse models of MND, and provide a new resource that speeds up the testing process for new drugs with the potential to treat MND.

AMOUNT INVESTED BY FIGHTMND IN THIS RESEARCH PROJECT:

\$250,000

Q&A:

Why is this important and how will it benefit patients?

New and improved animal models of MND will help us to understand how disease starts and will allow faster testing of new drugs before they are given to people. This project will produce new methods for quicker studies in MND mice, which will mean that new therapies can be moved through the development pipeline faster, so they reach people living with MND as quickly as possible.

PROJECT LEAD:

Dr Adam Walker
The University of Queensland, QLD

“We aim to create better mouse models of MND that will be faster and easier to use.” – Dr Adam Walker



Above: Dr Adam Walker | Below: PhD student Elise Kellett and Research Assistant Juliana Venturato analysing data in Dr Walker's lab