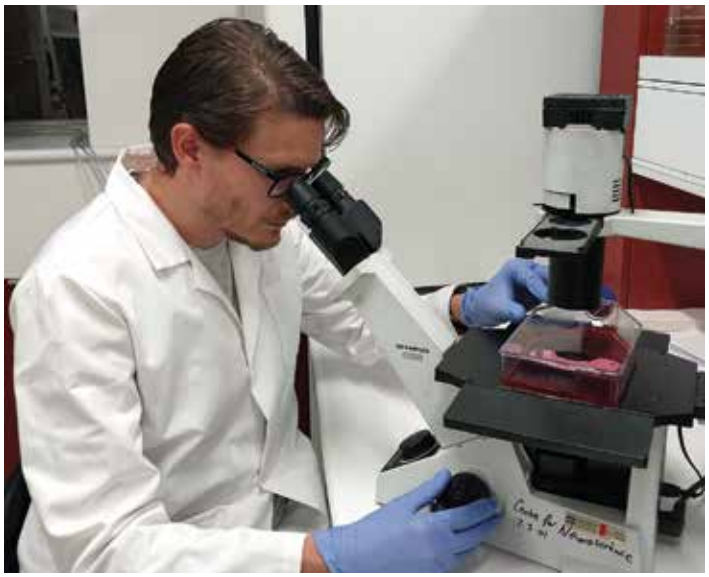
3. CHANGES IN THE FUNCTION OF CELLS IN THE BRAIN AND SPINAL CORD THAT NORMALLY SUPPORT MOTOR NEURON HEALTH

PROJECT:
Multiomic interrogation of patient-derived neurotoxic glia

PROJECT LEAD:
Dr Jeffrey Liddell
The University of Melbourne, VIC



Above: Dr Jeffrey Liddell | Below: Dr Jeffrey Liddell examining patient-derived cultured cells under the microscope

Motor neurons in the brain and spinal cord are surrounded by cells called glia, which support motor neurons and help to keep them healthy. However, researchers have found that in MND, glial cells may become harmful to motor neurons and contribute to their death. To discover why glial cells change to being harmful, investigators will use stem cells from people living with MND and sophisticated methods to re-create the brain's environment and accurately model interactions between glial cells and motor neurons in the laboratory.

KEY HIGHLIGHTS:
Dr Liddell is a first-time recipient of research support from FightMND. The project will identify key chemicals released by glial cells that are harmful to motor neurons, and new potential targets for developing more effective treatments for MND.

AMOUNT INVESTED BY FIGHTMND IN THIS PROJECT:
$669,313

Q&A:
What excites you about your research project?
The normally supportive glial cells in the brain and spinal cord become corrupted in MND and can actually attack and kill motor neurones. We believe we have found a trigger for how this occurs, and we are very excited to investigate it.

"We are seeking to develop and investigate improved models of MND."
– Dr Jeffrey Liddell