Neurological injury & Neurodegenerative Disease Diagnostic

Ref 2019-103

Medical Technology and Devices

Opportunity

The incidence of chronic neurodegenerative diseases, such as Alzheimer's Disease, and acute neurological injuries, such as stroke, are increasing as the global population is living longer lives. However, these diseases/ disorders are difficult to diagnose requiring expensive infrastructure (brain imaging) and/or assessments over years. Early diagnosis leads to unique therapeutic intervention opportunities and better patient outcomes.

Technology

The technology describes molecular probes and software that, combined, can identify brain-derived cell-free DNA within patient blood plasma. Proof-of-concept has been demonstrated in acute neurological injury and the diagnosis of Alzheimer's Disease. The technology is now being evaluated in the differential diagnosis of Frontotemporal Dementia and Primary Psychiatric disease and as a measure of the time-of-event in stroke.

Applications/ Indications

- Neurodegenerative Diseases
- Alzheimer's Disease
- Neurotoxicity assessment
- Acute neurological injury assessment
- Disease tracking

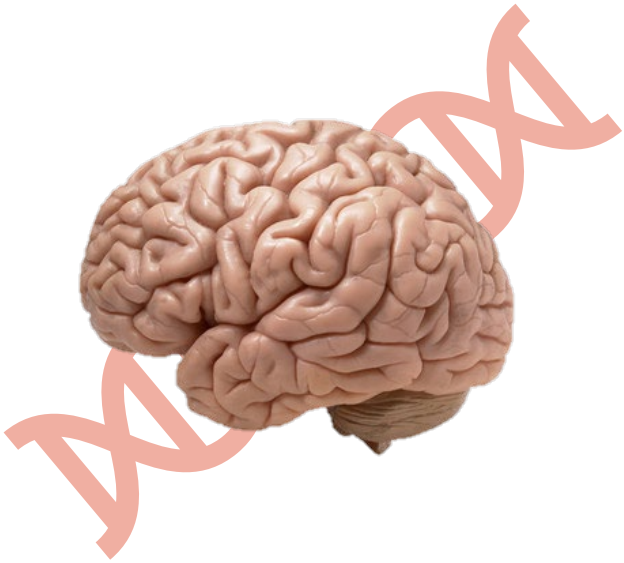
Intellectual Property Status

This technology is protected by patent family WO 2021/217210 in AU, EP, US.

Commercial Opportunity

The technology represents a significant breakthrough in diagnostics for neurology. The cell (eg. Neuron, Glia) and brain-region (eg. cortex, cerebellum) specificity can test a range of neurological conditions, assess neurotoxicity and as a companion diagnostic to assess therapeutic efficacy in neurology.

Proof of concept → Pre-clinical → **Clinical**



Contact us

Dr Taylor Syme
Commercialisation Theme Leader (Medicine & Health)

Commercialisation Team, Research Portfolio
The University of Sydney
Email: taylor.syme@sydney.edu.au
Phone: +61 468 517 473

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