Metallothionein
[Ref No. T10759]

Novelty | University of Tasmania researchers have developed a novel therapeutic composition based on Metallothionein (MT). MT is a naturally occurring protein well documented as being involved in endogenous multi-modal reparative processes associated with neurodegenerative and other indications. MT has an excellent toxicology profile. The University of Tasmania has protected therapeutic applications of MT.

Value Proposition | Under a separate patent, the University of Tasmania has protected peptide analogues of MT. The patent protection applies across any therapeutic applications of MT, (the subject of this patent) providing a strong intellectual property position for the development of any derivatives or synthetic analogues of MT. The value proposition is access to a defensive patent position around a wide range therapeutic applications of Metallothionein.

Market | The global neurodegenerative therapeutics market was valued as US$16,828m in 2010, and continues to grow strongly driven largely by the increasing incidence of neurodegenerative disease and poor standard of care. There are currently no drugs which manage the more serious forms of neurodegenerative indications well.

Technical Details | MT is an agonist for Lipoprotein Receptor Related Protein (LRP) family of receptors. LRP receptors mediate neural cell survival and regenerative growth. Low LRP activity in the brain produces an Alzheimer’s-like outcome. MT interacts with and counteracts the most significant forms of oligomeric amyloid-β and possibly other aggregated proteins associated with neurodegeneration. MT reduces neuro-inflammation. MT is strongly protective in animal models of multiple sclerosis.

Business Opportunity | This technology is available for licensing to interested industry partners.

Stage Development | Proof of Concept

Inventors | Prof Adrian West, A/Prof Meng Chuah, Prof James Vickers, and Prof Roger Chung


See Related Technology | Emtin B (Ref No. T02321)


Keywords | Metallothionein, neuronal growth, Alzheimer’s, Parkinson’s, Motor Neuron Disease, head injury

Contact Information:
Dr Darren Cundy
Director of Business Development and Technology Transfer
Phone: + 61 3 6226 6299
Email: Darren.cundy@utas.edu.au