

NEUROSCIENTIFIC PARTNERS WITH INTERNATIONAL CRO BIOSPECTIVE FOR MULTIPLE SCLEROSIS STUDIES

HIGHLIGHTS

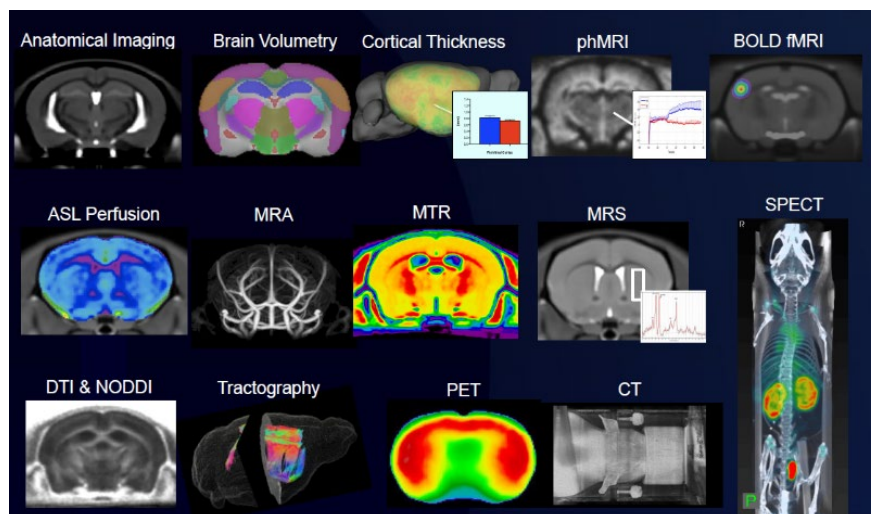
- **NeuroScientific Biopharmaceuticals Ltd has partnered with specialist contract research organisation Biospective Inc. for its Multiple sclerosis R&D**
- **Biospective specializes in neurology contract research, with strong expertise in neurodegenerative conditions**
- **Biospective is the industry leader in neurology imaging, providing the broadest range of imaging technologies for preclinical and clinical studies**

NeuroScientific Biopharmaceuticals Ltd (ASX: **NSB**) (“**NeuroScientific**” or “**the Company**”) is pleased to announce that the Company has engaged leading international contract research organisation (CRO) Biospective Inc. (Biospective) to undertake studies to support the development of EmtinB™ as a therapeutic treatment for Multiple sclerosis (MS).

Based in Montreal, Canada, Biospective specialises in preclinical and clinical neurology research with particular strengths in neurodegenerative conditions, including MS, Alzheimer’s disease, Amyotrophic Lateral Sclerosis, and Parkinson’s disease. Biospective’s research facilities are state-of-the-art, offering world class expertise in imaging studies, behavioural testing, histology, and immunohistochemistry. Biospective is a global leader in neuroimaging, providing the broadest range of imaging modalities and quantitative measures in neurology research (**Figure 1**).

NeuroScientific’s CEO and Managing Director Matt Liddelow commented: *“I’m very pleased to announce the partnership with industry leading CRO Biospective to conduct studies for NSB’s R&D program in Multiple sclerosis. In addition to their world class expertise, the range of imaging technologies offered by Biospective is unprecedented for preclinical neurology research and will aid in generating detailed data that will be of clinical significance in future clinical studies.”*

Figure 1: Imaging technologies incorporated into neurology studies undertaken by Biospective



NeuroScientific has established the therapeutic activity of EmtinB™ in MS across multiple studies using validated cell-based models of the disease (see previous announcements from 18 March 2020 and 14 July 2020), in which EmtinB™ treatment significantly increased myelin formation by up to 146% (vs control; $p < 0.001$) and increased the survival of neurons by up to 137% (vs. control; $p < 0.001$). More recently, EmtinB™ was shown to significantly reduce key drivers of dysfunctional immune responses associated with MS (see previous announcement from 31 August 2021).

MS is a progressive neurodegenerative disease characterised by chronic inflammatory responses, whereby activated immune cells migrate into the central nervous system (CNS) and attack the myelin sheath that surrounds nerve fibres and damage neurons, leading to disruption of normal cognitive, sensory, and motor function. Currently approved MS drugs modulate inflammatory responses only and do not directly affect myelin production or neuronal survival. Global sales for approved MS drugs in 2020 was approximately US\$22 billion.¹

This announcement is authorised by the Board of NeuroScientific Biopharmaceuticals Ltd.

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¹ www.biomedtracker.com

About NeuroScientific Biopharmaceuticals Ltd

NeuroScientific Biopharmaceuticals Limited (ASX: NSB) is a company developing peptide-based pharmaceutical drugs that target a number of neurodegenerative conditions with high unmet medical demand. The company's product portfolio includes EmtinB™, a therapeutic peptide initially targeting Alzheimer's disease and glaucoma, as well as other Emtin peptides (EmtinAc, EmtinAn, and EmtinBn) which have demonstrated similar therapeutic potential as EmtinB™. For more information, please visit www.neuroscientific.com

About EmtinB™

EmtinB™ is a peptide-based compound that binds to surface-based cell receptors from the LDLR family, activating intracellular signalling pathways that stimulate neuroprotection, neuroregeneration and modulate neuroinflammation. EmtinB™ is modelled on a specific active domain of the complex human protein called Metallothionein-IIA, which is produced as part of the human body's innate immune response to cell injury.

Our preclinical research has established that EmtinB™ is highly specific and selective for its target receptor, safe and well tolerated at high concentrations, and is able to penetrate the blood brain barrier. A series of Phase I clinical studies will be conducted to establish the safety profile of EmtinB™ in humans.