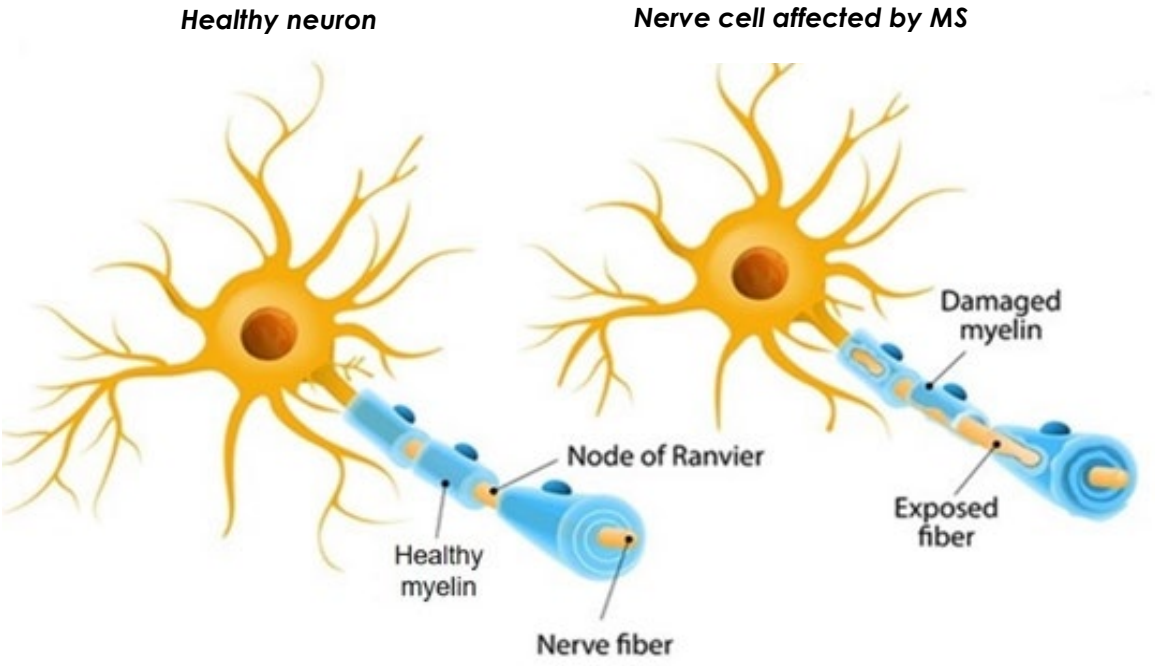
ASX ANNOUNCEMENT

EmtinB more effective than Copaxone® at myelin formation in MS model

Perth, Australia; 14 July 2020. NeuroScientific Biopharmaceuticals Ltd ASX: NSB ("NeuroScientific" or "the Company") is pleased to announce positive preliminary results from a preclinical study of its lead compound EmtinB in a Multiple sclerosis (MS) model, in which EmtinB's therapeutic potential was assessed against the leading marketed drug Copaxone®. The study was conducted by independent contract research organisation Neuron Experts, France.

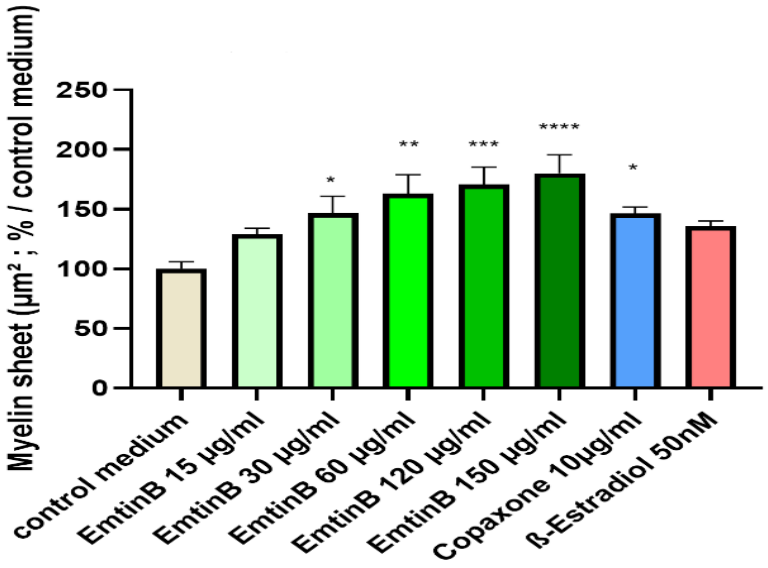
MS is a chronic, disabling neurodegenerative disease in which the body's immune system mistakenly attacks the myelin sheath that surrounds nerve fibres (**Figure 1**). Myelin function is to protect and insulate nerve fibres and is essential for normal cognitive, sensory, and motor function. Copaxone® is the leading therapeutic treatment for MS that generated peak sales revenue of approximately US$4 billion. The current MS market is estimated in excess of US$20 billion with 2.3 million patients suffering from this disease globally.

Figure 1: Myelin surrounding axons of healthy nerve cells and nerve cells affected by Multiple sclerosis



An extension of the previously completed study (results were announced on 18 March 2020) in which EmtinB had a highly significant positive effect on the proliferation and differentiation of oligodendrocytes (myelin-forming cells of the central nervous system), the current study analysed the direct effect of EmtinB on the formation of myelin by measuring the area of the myelin sheaths surrounding the nerve cell axons. EmtinB significantly increased myelin formation at concentrations 30µg/ml ($p<0.05$), 60µg/ml ($p<0.01$), 120 µg/ml ($p<0.001$), and 150µg/ml ($p<0.0001$) (**Figure 2**). Additionally, EmtinB increased myelin formation by >30% at 150µg/ml concentration and >25% at 120µg/ml in comparison to Copaxone®.

Figure 2: Effect of EmtinB on the formation of myelin in Multiple sclerosis model in comparison to positive controls Copaxone® and β-Estradiol



"Whilst we previously showed that EmtinB could positively influence the proliferation of myelin-forming oligodendrocytes in an MS model, these results go a step further to demonstrate that EmtinB significantly increases actual myelin formation", commented Matthew Liddelow, CEO and Managing Director of NeuroScientific Biopharmaceuticals. "These results represent a potential breakthrough in the treatment of MS as there are currently no approved therapeutic drugs available to patients that have demonstrated the ability to regenerate myelin in the central nervous system".

The full report for the study is expected to be available before the end of July.

About Neuroscientific Biopharmaceuticals Limited

NeuroScientific Biopharmaceuticals (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

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Announcement authorised by the Board of Directors of NeuroScientific Biopharmaceuticals

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