



## ASX ANNOUNCEMENT

### ***FINAL REPORT RECEIVED FOR GLAUCOMA STUDY***

**Perth, Australia; 4 May 2020. NeuroScientific Biopharmaceuticals Ltd ASX: NSB ("NeuroScientific" or "the Company")** is pleased to announce that it has received the Final Report from the recently completed glaucoma animal study in which the Company's lead drug candidate, called EmtinB, demonstrated neuroprotection across multiple highly relevant study end points. The successful study was undertaken by the Lions Eye Institute, Perth WA.

In addition to the positive results detailed in the previous announcement on 11 March 2020, EmtinB did not cause any toxicity in the tissues analysed during the study, as evidenced by negative results for both TUNEL and Caspase 3 toxicity biomarkers. Appendix 1 contains representative images demonstrating the neuroprotective effect of EmtinB in tissue sections analysed during the study.

The research team from the Physiology and Pharmacology department at the Lions Eye Institute who performed the study, led by Professor Dao-Yi Yu, commented "The experiments went very well and it is encouraging that EmtinB has shown protective effects in this pig model of intraocular pressure elevation. Taken together with recent results from other groups, there seems to be real potential for EmtinB to be clinically useful in the treatment of glaucoma, the second most common cause of blindness in our community."

As detailed in the previous announcement, the study involved a pig model of increased intraocular pressure, an acute model for glaucoma. The study demonstrated the neuroprotective effect of EmtinB by slowing damage to the optic nerve caused by glaucoma with statistically significant increases in neurofilaments (NFHp +25.89% vs control:  $p < 0.01$ ) and cytoskeleton proteins (tubulin +12.55% vs control:  $p < 0.002$ ; MAP +38.01% vs control:  $p < 0.01$ ). The pig model of increasing intraocular pressure closely mimics the pathology of chronic severe human glaucoma and these positive results indicate the disease modifying potential of EmtinB for this condition.

NeuroScientific is progressing the safety and toxicology program of EmtinB to be concluded in the second half of this year with first human studies scheduled for later this year.

## **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](http://www.neuroscientific.com)

**END**

***Announcement authorised by the Board of Directors of NeuroScientific Biopharmaceuticals***

### **Contacts**

Matthew Liddelow  
CEO and Managing Director  
[ml@neuroscientific.com](mailto:ml@neuroscientific.com)  
+61 8 6382 1805

Brian Leedman  
Nonexecutive Chairman  
[bl@neuroscientific.com](mailto:bl@neuroscientific.com)  
+61 412 281 780

## Appendix 1: Representative images from Glaucoma animal study

Images of tissue sections taken from the optic nerve of one pig are shown below, demonstrating the neuroprotective activity of EmtinB (treated) in comparison to the control (untreated) after 6-hours of increased intraocular pressure. The difference in intensity of the labelled neurofilaments (NFH, NFHp, NFM and NFL) and cytoskeleton proteins (Tubulin and MAP) were measured using specialised software. A higher intensity, as seen in the EmtinB treated sections, means a greater number of the biomarker being measured and therefore a positive treatment effect.

