

SEPTEMBER 2023 QUARTERLY ACTIVITY REPORT

HIGHLIGHTS

- The Company's new CEO conducted a review of EmtinB™ project & confirms EmtinB™ as highly prospective as NSB's lead project.
- HREC applications for systemic use of EmtinB™ in Multiple Sclerosis will not progress.
- NSB will look at focus on EmtinB™ as a therapy for neurodegenerative diseases of the eye.
- Ocular disease has an outstanding health economic profile.
- More than 5% of the global population suffer vision loss due to damaged optic nerve, representing a huge addressable market opportunity.
- Cash balance of A\$3.94M as at 30 September 2023.
- The Company appointed Mr Stephen Carter, an experienced pharmaceutical executive, as Chief Executive Officer.

NeuroScientific Biopharmaceuticals Ltd (ASX: **NSB**) ("**NeuroScientific**" or "**the Company**") today submitted its Appendix 4C and quarterly activity report for the period ended 30 September 2023.

QUARTERLY ACTIVITY REPORT

EmtinB™ Phase I Clinical Trial Update.

In its June 2023 quarterly activity report, NeuroScientific announced that it had initiated discussions with clinical research organizations (CROs), specialist clinicians, and other specialists to assess the outputs of the additional work that has been carried out on the safety, purity, and efficacy of EmtinB™ in recent months. Based on these discussions, and based on both the internal review led by the company's new CEO, Stephen Carter, and an assessment of the additional work that is still required to take EmtinB™ into Phase I clinical trials in multiple sclerosis, the company has decided, notwithstanding the strong pre-clinical results and potential for clinical success in multiple sclerosis, that it will not progress the HREC approval for systemic use of EmtinB™ in multiple sclerosis. The company will now prioritize research and development of EmtinB™ in ophthalmology.

R&D Programme Review

Over the past six weeks since his appointment and at the direction of the Board, the Company's CEO Stephen Carter has worked with the Board, executive team, and key consultants, in conducting a full analysis and review of the NeuroScientific's Research and

Development programs of EmtinB™. The review into the use of EmtinB™ in the treatment of neurodegenerative diseases of the brain and spinal cord, relapsing remitting multiple sclerosis, Alzheimer's disease and Ocular disease.

The results of this review have confirmed that it is very clear that NeuroScientific's Board, management, and shareholders have very good reasons to be positive about EmtinB™'s therapeutic potential. The early non-clinical and pre-clinical studies, carried out across a wide range of animal studies including, rodents, dogs, pigs, rabbits, and non-human primates, confirmed that EmtinB™ is an exciting lead prospect with significant therapeutic potential and, if able to be successfully developed and shown safe to use, could be a game-changing product in the fight against neurodegenerative diseases.

Given that the early work on Alzheimer's disease was discontinued in 2018, the review considered the two separate areas of therapeutic focus that NeuroScientific has been working on since that time, namely systemic use in Multiple Sclerosis and intra vitreal use in ophthalmology (Glaucoma).

A recent review of NeuroScientific's research program found strong evidence that EmtinB™ can specifically target neural protective and regenerative signalling pathways. The review also confirmed that EmtinB™ is safe for systemic administration, and that it has the potential to improve functional outcomes if it can reach the target sites.

Further, the studies carried out supported the systemic safety of EmtinB™. The systemic models confirmed that if the drug can reach the target sites that there was the potential to see functional improvements. Notwithstanding the considerable work that has been done proving the efficacy of EmtinB™ across a range of animal data, there remains some uncertainty that the drug can reach the target sites through systemic treatments, whereas by comparison, the ophthalmic studies confirmed the ability of EmtinB™ to reach the target sites due to the method of delivery directly into the eye.

Another important consideration is that the company's current intellectual property protection is running out, with patents on EmtinB™ expiring in 2027-2028. The Company has filed a provisional patent application for "Neuroprotective compositions and methods" which is undergoing prosecution. The review of the systemic program found it may potentially be difficult to achieve new drug related IP (e.g. a formulation patent) without a significant cost and delay in the project, whereas the review found that there are a number of potential opportunities to increase the Company's IP through the ophthalmology program.

A detailed analysis of both therapeutic indications also found that the health economic outcomes of an ophthalmic indication are potentially superior to those indications that require systemic treatment.

The high-level findings of the Company's review are summarised below, and support the Company's decision to prioritise ophthalmology in its Research and Development programme:

Description	Systemic treatment (Multiple Sclerosis)	Ophthalmology
Safety	Safe	Safe
Efficacy	Data supports efficacy, though uncertainty still exists as to whether we can reach target site	Data supports efficacy. Confirmed ability to reach target sites.
Dosage	Daily	Monthly
Mechanism of Action	Binds to LRP-1	Binds to LRP-1
Route of Administration	Sub Cutaneous	Intra vitreal
Bioavailability	Approx. 24-36 hours	>14 days
Treatment administered by	Self	Doctor
Suitable commercial formulation	Uncertain	Yes
Sufficient stability for intended use	Suitable for Phase 1 study but uncertain whether suitable for commercial use can be achieved	Yes
Cost	High	Low
Market Size	MS <2 million WW	Glaucoma 80million WW 5% of world population has a neurodegenerative eye disease.
Health economic modelling	Challenging viability	Commercially viable
Orphan Drug opportunity	No	Yes
Ability to get new IP	Potentially challenging	Potentially

Based on the above information, the board of NSB believes that a decision to re-prioritise our therapeutic focus to ophthalmology projects would provide the company with the best opportunity of commercial success.

New Opportunities

NeuroScientific continues to evaluate new and promising technologies to provide the Company with a pipeline of projects.

EmtinB™ Early Phase Clinical Study Data Base Lock

The Company's Early Phase 0 Clinical Study data is locked and is currently undergoing statistical analysis. The interpretation of the results of this study is now expected in Q4 CY 2023.

Quarterly Cash Flow Summary

NeuroScientific's cash position was \$3.94 million as at 30 September 2023. The Company has maintained a strong cash position with corporate expenses continuing to be carefully managed.

Net operating cash inflows for the quarter were \$969k with research and development activities payments totalling \$517k for the quarter.

Staff costs for the quarter were \$145k. Administration and corporate costs were \$354k, which included annual costs related to insurance renewals and audit fees. During the quarter, the company spent \$7k in advertising and marketing costs.

Payments to related parties during the September 2023 quarter totalled \$118k and relate to Director fees, salaries and superannuation (\$72k) and Administration and Management fees (\$46k).

The level of net cash burn for the December 2023 quarter is expected to be at similar levels as for the September 2023 quarter, as the company continues to preserve cash in the coming months as the work towards future research and development of EmtinB™ in ophthalmology commences.

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

-ENDS-

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About new Chief Executive Officer

On the 31st of August NeuroScientific announced the appointment of Mr. Stephen Carter as the new Chief Executive Officer effective as of 11th September 2023. Stephen brings broad experience in growing early-stage development companies, both listed and unlisted, being involved in a number of start-ups as CEO, Chairman and MD. His experience covers strategic development, design, and management of pre-clinical studies as well as human Phase 1, 2 and 3 clinical trials. He brings experience in investor and investment management, capital raising, business development and partnering as well as regulatory and corporate compliance across many global jurisdictions.

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.

Appendix 4C

Quarterly cash flow report for entities subject to Listing Rule 4.7B

Name of entity

NeuroScientific Biopharmaceuticals Limited

ABN

13 102 832 995

Quarter ended ("current quarter")

30 September 2023

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (3 months) \$A'000
1. Cash flows from operating activities		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) research and development	(517)	(517)
(b) product manufacturing and operating costs	-	-
(c) advertising and marketing	(7)	(7)
(d) leased assets	-	-
(e) staff costs	(145)	(145)
(f) administration and corporate costs	(354)	(354)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	54	54
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	-	-
1.8 Other (provide details if material)	-	-
1.9 Net cash from / (used in) operating activities	(969)	(969)
2. Cash flows from investing activities		
2.1 Payments to acquire or for:		
(a) entities	-	-
(b) businesses	-	-
(c) property, plant and equipment	-	-
(d) investments	-	-
(e) intellectual property	-	-
(f) other non-current assets	-	-

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 months) \$A'000
2.2	Proceeds from disposal of:		
	(a) entities	-	-
	(b) businesses	-	-
	(c) property, plant and equipment	(2)	(2)
	(d) investments	-	-
	(e) intellectual property	-	-
	(f) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
2.6	Net cash from / (used in) investing activities	(2)	(2)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	-
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	-
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	Net cash from / (used in) financing activities	(0)	(0)

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	4,912	4,912
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(969)	(969)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(2)	(2)

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 months) \$A'000
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	-
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	3,941	3,941

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	148	612
5.2	Call deposits	3,793	4,300
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	3,941	4,912

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	(118)
6.2	Aggregate amount of payments to related parties and their associates included in item 2	
<p><i>Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.</i></p> <p>Item 6.1 above includes Director salaries, fees & superannuation (\$72k) and management & administration fees (\$46k)</p>		

7.	Financing facilities <i>Note: the term "facility" includes all forms of financing arrangements available to the entity.</i> <i>Add notes as necessary for an understanding of the sources of finance available to the entity.</i>	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	Total financing facilities	-	-
7.5	Unused financing facilities available at quarter end		-
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		

8.	Estimated cash available for future operating activities	\$A'000
8.1	Net cash from / (used in) operating activities (item 1.9)	(969)
8.2	Cash and cash equivalents at quarter end (item 4.6)	3,941
8.3	Unused finance facilities available at quarter end (item 7.5)	-
8.4	Total available funding (item 8.2 + item 8.3)	3,941
8.5	Estimated quarters of funding available (item 8.4 divided by item 8.1)	4.1
<i>Note: if the entity has reported positive net operating cash flows in item 1.9, answer item 8.5 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.5.</i>		
8.6	If item 8.5 is less than 2 quarters, please provide answers to the following questions:	
8.6.1	Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?	
	Answer: n/a	
8.6.2	Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?	
	Answer: n/a	
8.6.3	Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?	
	Answer: n/a	
<i>Note: where item 8.5 is less than 2 quarters, all of questions 8.6.1, 8.6.2 and 8.6.3 above must be answered.</i>		

Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 30 October 2023

Authorised by: The Board of Directors