

MARCH 2022 QUARTERLY ACTIVITY REPORT

HIGHLIGHTS

- **Lead drug candidate EmtinB™ successfully completed *in vitro* genotoxicity studies and plasma protein binding studies – key studies in finalising the neurology safety program**
- **EmtinB™ shown to regulate key drivers of inflammation and autoimmune diseases**
- **Successful completion of biomarker program, largely focusing on peripheral inflammation**
- **Initiation of animal studies in Multiple sclerosis with partner CRO Biospective**
- **Strong cash position with A\$7.9M held as at 31 March 2022**

NeuroScientific Biopharmaceuticals Ltd (ASX: **NSB**) (“**NeuroScientific**” or “**the company**”) today submitted its Appendix 4C and quarterly activity report for the period ended 31 March 2022.

Quarterly Activity Report

Throughout the March quarter, NeuroScientific reported several significant events as the Company continued to progress development of its lead drug candidate EmtinB™ by further demonstration of its disease-modifying potential in parallel with completing activities to achieve the major milestone of initiating a first-in human clinical trial in H1 2022. The Company continues to maintain a strong cash position going forward and is positioned for further success during the June quarter 2022.

During the March quarter 2022, NeuroScientific successfully completed important studies for finalising its preclinical neurology safety program and progressing EmtinB™ into first-in-human clinical trials in H1 2022. Genotoxicity studies, vital safety studies for assessing the carcinogenic and mutagenic potential of drug candidates prior to testing in humans, demonstrated the significantly low potential for EmtinB™ to induce genetic damage in humans. Plasma protein binding studies, which determine if the availability of a drug is affected by inadvertent binding to proteins present within human plasma, demonstrated that 98% of EmtinB™ that enters the blood circulatory system is available to reach the site of action. The results from plasma protein binding studies provide important data for accurately predicting dose selection in first-in-human clinical trials.

Also during the March quarter 2022, the Company reported the successful outcomes from biomarker studies focusing on the effect of EmtinB™ on inflammatory responses associated with chronic inflammation and autoimmune diseases. EmtinB™

significantly reduced the pro-inflammatory cytokines interleukins (IL)-17A, IL-17F, and IL-6. These cytokines are strongly associated with multiple autoimmune diseases including psoriasis, rheumatoid arthritis, and ankylosing spondylitis and play a prominent role in the damaging inflammatory responses seen in Multiple sclerosis (MS) and Alzheimer's disease (AD).¹ Furthermore, the outcomes from this study indicate that EmtinB™ is able to treat both peripheral inflammation (inflammation that occurs outside of the brain) and inflammation of the central nervous system (CNS). This recently completed biomarker study is the final study of a comprehensive biomarker R&D program that has successfully generated new data in relation to the mechanism of action of EmtinB™ (please see previous announcements from 21 December 2021, 31 August 2021, and 20 August 2021).

Another positive event during the March quarter 2022 involved the initiation of studies with Canadian-based research partner Biospective to evaluate EmtinB in animal models of Multiple sclerosis. This project is on track to report treatment outcomes during the H2 2022.

NeuroScientific also participated in the Broker Briefing webinar series during the March quarter 2022.

Outlook

NeuroScientific is on track to initiate its first-in-human clinical trial involving its lead drug candidate in H1 2022. The Company has successfully concluded its preclinical neurology safety program, including the completion of pivotal GLP safety and toxicity studies in two different species of animals, and expects to achieve the historic company milestone of commencing its first clinical study in June 2022.

Quarterly Cash Flow Summary

NeuroScientific's cash position was \$7.9 million as at 31 March 2022. The Company maintains a strong cash position towards the delivery of the planned clinical development program and corporate expenses continue to be carefully managed.

Net operating cash outflows for the quarter was \$1,601,000. Research and development activities payments totalled \$1,186,000 for the quarter. Staff costs for the quarter were \$216,000. Administration and corporate costs were \$196,000. During the quarter, the company spent \$11,000 in advertising and marketing costs.

Payments to related parties during the March 2022 quarter totalled \$166,000 and relate to Director fees, salaries and superannuation (\$136,000) and Administration and Management fees (\$30,000).

The level of net cash burn for the June 2022 quarter is expected to be higher than the March 2022 quarter due to the Company completing its transition into clinical development by initiating its first-in-human clinical trial involving EmtinB™.

¹ Milovanovic et al. 2020 Interleukin 17 in chronic inflammatory neurological disease.

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

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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.

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")

31 March 2022

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
1. Cash flows from operating activities		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) research and development	(1,186)	(4,799)
(b) product manufacturing and operating costs	-	-
(c) advertising and marketing	(11)	(65)
(d) leased assets	-	-
(e) staff costs	(216)	(687)
(f) administration and corporate costs	(196)	(756)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	8	46
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	(1,601)	(6,261)
2. Cash flows from investing activities		
2.1 Payments to acquire or for:		
(a) entities	-	-
(b) businesses	-	-
(c) property, plant and equipment	-	(3)
(d) investments	-	-
(e) intellectual property	-	-
(f) other non-current assets	-	-

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (9 months) \$A'000
2.2	Proceeds from disposal of:		
	(a) entities	-	-
	(b) businesses	-	-
	(c) property, plant and equipment	-	-
	(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	(0)	(3)

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	9,499	14,162
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(1,601)	(6,261)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	-	(3)

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (9 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	7,898	7,898

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	495	1,103
5.2	Call deposits	7,403	8,396
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)	7,898	9,499

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	(166)
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 (\$136k) and management & administration fees (\$30k)</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)	(1,601)
8.2	Cash and cash equivalents at quarter end (item 4.6)	7,898
8.3	Unused finance facilities available at quarter end (item 7.5)	-
8.4	Total available funding (item 8.2 + item 8.3)	7,898
8.5	Estimated quarters of funding available (item 8.4 divided by item 8.1)	4.9
<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: 29 April 2022

Authorised by: The Board of Directors