

28 April 2023

QUARTERLY ACTIVITIES REPORT FOR THE PERIOD ENDED 31 MARCH 2023

Operational highlights:

- Maiden US patent secured for Nanollose's fibre – highlights third patent globally and ongoing validation of IP and protection in the world's largest consumer market
- Two-year extension of collaboration agreement with leading multinational fibre company, Birla Cellulose – validating progress to date
- Birla Cellulose is a business unit of Grasim Industries – a division of multinational Indian conglomerate Aditya Birla Group
- Second pilot production of Nullarbor™ fibres completed with Birla Cellulose with target objective to increase the microbial cellulose content achieved, producing the first batch of Nullarbor-30
- ~150kg of Nullarbor-30™ produced, consisting of 30% microbial cellulose and 70% FSC certified wood pulp, in addition to ~90kg of Nullarbor-20™
- A third pilot spin is expected later this quarter, with fibre from the second spin to be converted to fabrics and garments with selected partners

Outlook and key objectives:

- Advance broader distribution of samples of yarns and fabrics to partners for appraisal and garment production
- Undertake a third pilot spin of Nullarbor™ fibres with Birla Cellulose at increased scale and microbial cellulose content
- Work towards transitioning collaboration agreements to commercial supply agreements
- Development and commercialisation of Jelli Grow™
- Development of plastic-free vegan leather material

Nanollose Limited (ASX:NC6) ("Nanollose", the "Company"), a leading bio-materials company commercialising scalable technology to create fibres, fabrics and other materials from microbial cellulose, is pleased to provide shareholders with an overview of activities undertaken during the three month period ended 31 March 2023 ("quarter", "reporting period").

Management commentary:

Executive Chairman Dr Wayne Best said: *"Nanollose has achieved a considerable amount during the quarter, which will provide a strong foundation for the remainder of CY2023. Notably, the Company secured*

its first US patent, which is a very important step in protecting our innovative technology in the world's largest consumer market. Further, our offering was recognised by receipt of the prestigious Cellulose Fibre Innovation of the Year Award 2023, which highlights the considerable potential the Company has amongst industry peers.

"Work alongside our trusted R&D partner continued, with our collaboration agreement mutually extended for a period of two years. This will provide the Company the opportunity to pursue ongoing commercial opportunities for our technology, alongside a leading multinational group. It also provides a clearer development runway to accelerate commercialisation.

"In a major milestone post quarter end, our work with Birla Cellulose was highlighted by the completion of a second pilot spin which has significantly advanced the development and our understanding of the Nullarbor fibre technology. We look forward to gaining additional feedback from industry counterparts on the second production run, prior the commencement of a third spin this later this quarter."

Operational overview:

During the quarter, Nanollose continued to make pleasing operational progress which included strengthening its intellectual property (IP) portfolio, collaboration extensions with large industry counterparts and the completion of the second pilot production of its Nullarbor™ fibre.

US patent secured for sustainable fibre technology:

The Company's ongoing commitment to IP protection was highlighted through the grant of patent approval by the United States Patent and Trademark Office (USPTO) for the patent application titled 'Methods For Producing a Viscose Dope from Microbial Cellulose' (US Patent Number 11,597,779) (the 'Patent'). This marked the Company's first US patent, and third globally, and was the first relating to Nanollose's fibre.

The Patent covers the pulping of microbial cellulose for use in the production of viscose fibres. While the Company's primary focus is currently on the development of its Tree-Free Nullarbor™ lyocell process, the US patent is validation of Nanollose's strategy to establish a broader leadership position in sustainable fibre technologies. It also expands the Company's IP footprint across its product suite and provides protection from potential competitors in the world's largest consumer market.

Extension of collaboration agreement with multinational fibre production company:

Nanollose extended its collaboration agreement with multinational rayon fibre manufacturing conglomerate Grasim Industries Limited for a further two years during the quarter, marking validation of the commercial potential from work carried out to date. Both parties mutually agreed to extend the agreement, stating that a research program is warranted following the continued exciting results.

Since the collaboration commenced in early 2020, Nanollose and Birla Cellulose (the business unit of Grasim Industries responsible for fibres) have collaborated to develop a high-tenacity lyocell fibre from microbial cellulose, a Tree-Free form of cellulose made by a natural fermentation process on a range of wastes and by-products from the food and agricultural industries.

Following a number of early research breakthroughs, both parties developed a lyocell fibre that was significantly stronger than conventional lyocell made from wood pulp, and which could also be spun into a fibre finer than silk. Moreover, even when blended with wood pulp, the microbial cellulose conferred increased strength to the resulting fibre. This provides an important technical advantage to Nullarbor, over and above its environmental benefits.

Nanollose and Birla Cellulose undertook an initial pilot production of fibre containing microbial cellulose. The pilot batch produced 260kg of Nullarbor-20 - a blend of 20% microbial cellulose with 80% wood pulp.

The initial 260kg of fibre was converted into a variety of yarns and fabrics, which enabled samples to be sent to several fashion brands for appraisal. The inaugural production run demonstrated the ability of the

technology to produce high quality materials using Nullarbor fibre with existing industry equipment – an important barometer for future commercial applications.

Since the maiden pilot spin, a number of samples have been sent to industry professionals with very positive feedback. Birla Cellulose and Nanollose also made a small batch of Nullarbor fibre from 100% microbial cellulose and converted it to yarn, which was then used to create a 3D-knitted garment designed by Lee Mathews that was launched at the Global Fashion Summit in Copenhagen in June 2022 (refer ASX Announcement 6 June 2022).

Nova Institute's Cellulose Fibre Innovation of the Year Award:

Nanollose and Birla Cellulose's Nullarbor™ fibre was recognised by the receipt of the prestigious Cellulose Fibre Innovation of the Year Award 2023, which was awarded by leading private and independent research group, nova-institut GmbH. The Company was awarded the prestigious honour at the 2023 Cellulose Fibre Conference in Cologne, Germany following a poll of conference delegates.

Second pilot spin completed with Birla Cellulose for Nullarbor™ Fibre technology:

In a major milestone subsequent to the end of the reporting period, Nanollose advised that it had completed a second pilot spin with Birla Cellulose. The major objective of the second pilot run was to produce a batch of fibre with a higher microbial cellulose content than Nullarbor-20.

Production was split into two fibre spins to produce the Company's second batch of Nullarbor-20 and its first batch of Nullarbor-30. Approximately 90kg of Nullarbor-20 was produced, consisting of 20% microbial cellulose and 80% FSC certified wood pulp.

Further, ~150kg of Nullarbor-30 was produced which consisted of 30% microbial cellulose and 70% FSC certified wood pulp. The production of Nullarbor-30 at the higher microbial cellulose content of 30% is a significant outcome for this second pilot spin, and bodes well for the Company's strategy of developing a range of Nullarbor eco-friendly fibres for different markets.

Following completion of the second spin, both parties are working towards a third pilot run to target increased production volumes and microbial cellulose content. The third pilot spin is expected to take place later this quarter.

CelluAir:

The Company has been advised that advanced filtration technology company, CelluAir Pty Ltd ("CelluAir"), in whom the Company has an ~19% interest, has elected not to proceed with its nanocellulose filtration material project, and to wind up the operations of the company. Nanollose assessed the carrying value of its investment in CelluAir as at 31 December 2022, at which time it determined that the book value be written down to zero. As such, this write off has already been reflected in the Company's half year accounts to 31 December 2022. As part of the wind-up process, Nanollose expects to receive a cash payment, and to take receipt of certain equipment owned by CelluAir which will be of use to Nanollose going forward.

Outlook:

Following the continued focus on textile production opportunities with existing collaborators, Nanollose will continue to focus on the following objectives for the current period and beyond:

- Broader distribution of samples of yarns and fabrics to partners for appraisal and garment production
- Undertake a third pilot spin of Nullarbor™ fibres with Birla Cellulose at increased scale and microbial cellulose content
- Work towards transitioning collaboration agreements to commercial supply agreements
- Complete the development of Jelli Grow and commence commercialisation
- Development of a plastic-free vegan leather material

Appendix 4C Quarterly Cash Flow:

The Company's Appendix 4C Quarterly Cash Flow Report for the quarter ended 31 March 2023 accompanies this announcement. At the end of the quarter, Nanollose had a cash balance of \$486,000. The Company continued diligent cash management, expending a gross total of \$291,000 on the operations of the Company, and receiving a total of \$14,000.

Capital expenditure comprised of R&D (\$153,000), advertising and marketing (\$47,000), staff costs (\$26,000), administrative and corporate costs (\$79,000) and interest received (\$6,000), and receipts from customers (\$8,000).

The payments included at section 6.1 of the attached Appendix 4C relate to Executive Directors' Salaries (\$62,000), Non-Executive Director Fees (\$28,000), and Company Secretary, Accounting and Office Fees (\$25,000).

[ENDS]

AUTHORITY AND CONTACT DETAILS

This announcement has been authorised for release by the Board of Directors of Nanollose.

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ABOUT NANOLLOSE

Nanollose Limited (ASX: NC6) is a leading biotechnology Company commercialising scalable technology to create fibres with minimal environmental impact. Nanollose uses an eco-friendly fermentation process to grow fibres that could become a sustainable alternative to conventional plant-derived cellulose fibres.

The Company's process, which uses streams from various large-scale industries, including food and agriculture, has the ability to produce 'Tree-Free' Cellulose. Cellulose is the hidden polymer building block most consumers know nothing about, but forms a huge part of items used in their everyday life such as clothing, paper and hygiene products.

In January 2021, Nanollose filed a joint patent application with strategic partner, Birla Cellulose, for a high tenacity, Tree-Free lyocell made from microbial cellulose. In February 2022, Nanollose and Birla Cellulose completed the first pilot production of such a lyocell fibre when Birla Cellulose spun 260kg of forest-friendly Nullarbor-20™ fibre for Nanollose at their facilities in India. This fibre has since been sent to several collaborators and has been converted into yarns, fabrics, and garments for testing and evaluation, prior to potential uptake by partners.

Appendix 4C

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

Name of entity

Nanollose Limited

ABN

13 601 676 377

Quarter ended ("current quarter")

31 March 2023

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	8	8
1.2 Payments for		
(a) research and development	(153)	(569)
(b) product manufacturing and operating costs	0	0
(c) advertising and marketing	(47)	(193)
(d) leased assets	0	0
(e) staff costs	(26)	(75)
(f) administration and corporate costs	(79)	(293)
1.3 Dividends received (see note 3)	0	0
1.4 Interest received	6	17
1.5 Interest and other costs of finance paid	0	0
1.6 Income taxes paid	0	0
1.7 Government grants and tax incentives (R&D Rebate)	0	0
1.8 Other	0	0
1.9 Net cash from / (used in) operating activities	(291)	(1,105)

2. Cash flows from investing activities		
2.1 Payments to acquire or for:		
(a) entities	0	0
(b) businesses	0	0
(c) property, plant and equipment	0	0
(d) investments	0	0
(e) intellectual property	0	0

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (9 months) \$A'000
	(f) other non-current assets	0	0
2.2	Proceeds from disposal of:		
	(a) entities	0	0
	(b) businesses	0	0
	(c) property, plant and equipment	0	0
	(d) investments	0	0
	(e) intellectual property	0	0
	(f) other non-current assets	0	0
2.3	Cash flows from loans to other entities	0	0
2.4	Dividends received (see note 3)	0	0
2.5	Other (provide details if material)	0	0
2.6	Net cash from / (used in) investing activities	0	0

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	0	0
3.2	Proceeds from issue of convertible debt securities	0	0
3.3	Proceeds from exercise of options	0	0
3.4	Transaction costs related to issues of equity securities or convertible debt securities	0	0
3.5	Proceeds from borrowings	0	0
3.6	Repayment of borrowings	0	0
3.7	Transaction costs related to loans and borrowings	0	0
3.8	Dividends paid	0	0
3.9	Other (provide details if material)	0	0
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	777	1,591
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(291)	(1,105)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	0	0

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)	0	0
4.5	Effect of movement in exchange rates on cash held	0	0
4.6	Cash and cash equivalents at end of period	486	486

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	216	357
5.2	Call deposits	270	420
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)	486	777

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	115
6.2	Aggregate amount of payments to related parties and their associates included in item 2	
Payments at section 6.1 relate to Executive Directors' Salaries (\$62,000), Non-Executive Director Fees (\$28,000), Company Secretary, Accounting and Office Fees (\$25,000)		

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	0	0
7.2	Credit standby arrangements	0	0
7.3	Other (please specify)	0	0
7.4	Total financing facilities	0	0
7.5	Unused financing facilities available at quarter end		0
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)	(291)
8.2	Cash and cash equivalents at quarter end (item 4.6)	486
8.3	Unused finance facilities available at quarter end (item 7.5)	0
8.4	Total available funding (item 8.2 + item 8.3)	486
8.5	Estimated quarters of funding available (item 8.4 divided by item 8.1)	1.67
<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: The Company does anticipate continuing to have materially the current levels of net operating cash flows for the time being. The Company is, however, expecting to receive an R&D tax rebate of approximately \$370,000 in the current quarter.	
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: The Company has not taken steps to raise further capital.	
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: Yes. The Company is confident it will have access to sufficient additional capital when needed.	
<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: 28 April 2023

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Authorised by: The Board of Directors

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(Name of body or officer authorising release – see note 4)

Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standard applies to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.