

31 October 2023

## **QUARTERLY ACTIVITIES REPORT FOR THE PERIOD ENDED 30 SEPTEMBER 2023**

### **Operational highlights:**

- Introduction of Biollose™, a new versatile rehydratable dry-powder version of Nanollose's original Jelli Grow™ plant germination medium that opens up new addressable markets in commercial agriculture and horticulture products
- Memorandum of Understanding (MOU) with Greenspace, an Australian green technology company, following successful early trials of MicroGel™, a form of Biollose™ developed for commercial microgreen production
- Pilot production run completed with supply partner, Hainan Guangyu Biotechnology, for 10kg of MicroGel™ – enough to make over one tonne of seed raising medium once rehydrated – with 50% to be sent to Greenspace for use in upcoming trial
- Approval granted from the European Patent Office with respect to Nanollose's original wet-gel Jelli Grow™ seed raising medium; further expands the Company's global IP portfolio with additional patent applications pending for Biollose™ and tree-free Nullarbor™ fibre technologies across key international jurisdictions
- Microbial cellulose was delivered to Nanollose's production partner, Birla Cellulose, during the quarter for the third pilot spin of the group's Nullarbor™ fibre, which is expected to be completed in November
- Ongoing advancement of the Company's vegan leather-like materials; samples sent to a European fashion brand during the quarter were well-received which resulted in a request for larger quantities which were sent post quarter-end

### **Outlook and key objectives:**

- Continued progression towards commercial pathways for the Company's technology suite, leveraging existing supply and development partnerships for Biollose™ products and animal-free, plastic-free leather-like materials
- Achievement of key production milestones for Nanollose's flagship Nullarbor™ fibre technology with global manufacturing partner Birla Cellulose, targeting expanded production volumes and/or increased levels of microbial cellulose in the fibre

Nanollose Limited (ASX:NC6) ("Nanollose", the "Company"), a leading biomaterials 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 30 September 2023 ("quarter", "reporting period").

## **Management commentary**

**Executive Chairman Dr Wayne Best said:** *“We are pleased to present our quarterly operations update, which was highlighted by several more exciting breakthroughs across our production development suite and the execution of the Company’s strategy to convert its leading R&D pipeline into commercial opportunities. The launch of our Biollose technology presents the Company with an opportunity to target multiple commercial pathways, as evidenced by the group’s MOU with Greenspace that sets out a clear pathway to commercialisation. While the Biollose launch marks an important step forward for Nanollose, it was a busy quarter of activity across all of our technology portfolios, which sets the stage for an exciting period of news flow with respect to the expanded test production of our Nullarbor fibre technology and ongoing pilot testing with customers in the global fashion industry for the Company’s unique ‘vegan’ leather products. In that context, we look forward to providing more updates in Q2 FY2024 and beyond as Nanollose continues to execute on its stated commercialisation and R&D objectives.”*

## **Operational overview:**

During the quarter, Nanollose successfully executed on another round of key production and development initiatives, highlighted by the introduction of its Biollose™ technology and a resulting MOU with Australian green technology company Greenspace for the application of MicroGel™, a form of Biollose developed for commercial microgreen production.

Along with the introduction of Biollose™, the Company also generated strong momentum across the remainder of its product development pipeline, with production plans proceeding for the third pilot spin of its flagship Nullarbor™ fibre technology and good market feedback for the latest version of its animal-free and plastics-free leather-like materials.

## **Introduction of Biollose™ to expand applications for soilless growth media**

Quarterly operating highlights commenced with the introduction of the Company’s Biollose technology. Biollose is a significant improvement over the Company’s previous Jelli Grow™ liquid-gel soilless growth media. Biollose is a dry powder formulation that can be rehydrated at point of use, facilitating cheaper, more efficient transport, storage and handling. The rebrand reflects the evolution from the original Jelli Grow product to a more versatile product that can be used in a range of highly scalable commercial agriculture and horticulture products.

With its expanded application, Biollose will be the key ingredient across Nanollose’s horticultural product suite including MicroGel™ for commercial microgreen production, and Jelli Grow™ for home user microgreen kits.

MicroGel offers a number of advantages over current media in the market for microgreen production, starting with its dehydrated formulation which is only 1% of the weight and space of the made-up medium, dramatically reducing shipping and storage requirements.

Once rehydrated at point of use, it can be efficiently dispensed as a liquid/gel in either manual or automated systems. With a water content of over 99%, MicroGel significantly reduces the need for constant watering, and it is also bio-based, non-toxic, readily biodegradable and compostable.

## **MOU to supply MicroGel™ to Greenspace**

Following the introduction of Biollose, Nanollose subsequently signed a Memorandum of Understanding (MOU) during the quarter with Australian green technology company, Greenspace.

The terms of the agreement stipulated that Nanollose will supply Greenspace with 5kg of MicroGel from its upcoming first pilot production run. Greenspace will then be offered an exclusive supply of MicroGel in the commercial microgreen market in Australia.

Greenspace will use the material to undertake extensive trials at its commercial production facilities in Sydney, Australia. Feedback from these trials will enable Nanollose to refine the product for the key markets that Greenspace operates in. More broadly, Greenspace's business model is based on the establishment of Community Vertical Farms – a greentech solution that links Macrofarm production hubs with connected smart Microfarms. On successful completion of the trials, it is proposed that Nanollose and Greenspace will enter into a supply agreement, under which Greenspace will be offered an exclusive supply of MicroGel in the commercial microgreen market in Australia, on commercial terms to be agreed between the parties.

The proposed supply agreement would be for an initial term of one year with a minimum order of 1.5 tonnes of MicroGel during the period, enough to produce around 1.5 million punnets of microgreens. The MOU also provides for Greenspace to be offered an option of extending the period of exclusivity for a second year with a minimum order of 3 tonnes during that year.

### **Successful pilot production run for MicroGel™ technology**

Later in the quarter, Nanollose announced that its supply partner, Hainan Guangyu Biotechnology ('HGB'), had completed the pilot production run for a 10kg batch of MicroGel. The quantity is enough to make over one tonne of seed raising medium, once rehydrated at the point of use. The successful pilot run sets the framework for Nanollose and HGB to further expand production and efficiently scale the technology to commercial quantities.

Approximately half of the pilot batch has been provided to Greenspace ESG Pty Ltd for use in an upcoming trial, with results expected during the current quarter. The remainder of the MicroGel batch will be used for the Company's own in-house testing purposes and to supply other parties that have expressed interest in Nanollose's new innovative horticultural products.

### **Nullarbor™ fibres, and animal-free, plastic-free leather-like materials**

Elsewhere during the quarter, Nanollose made significant developments across its product suite of innovative biomaterials. The Company has been working with HGB to refine the specification of its microbial cellulose and has successfully produced and delivered the microbial cellulose required for the third pilot spin of its Nullarbor™ fibre in partnership with Birla Cellulose, a subsidiary of multinational Indian conglomerate Aditya Birla Group.

The third pilot spin – expected to be completed in November – will target expanded production volumes for Nullarbor-20 and/or Nullarbor-30, following the completion of the second pilot spin earlier in 2023 (*refer ASX Announcement 3 April 2023*).

The Company's manufacturing partner, Paradise Textiles, has also made progress converting fibre from the second spin into fabric samples for potential customers in the fashion industry. The Nullarbor-20 fibre will be provided to Lee Mathews for use in a small capsule collection which will represent the first commercially available garments containing Nullarbor fibres. Lee Mathews is an Australian fashion brand with international reach and was the designer for the Company's Nullarbor concept garment launched at the Copenhagen Global Fashion Summit last year (*refer ASX Announcement 6 June 2022*).

Also during the quarter, Nanollose made further advances on its range of animal-free, plastic-free leather-like materials. Small samples have been sent to a number of parties. Feedback has been very positive with one European fashion brand requesting larger quantities for further work.

## **Activities post quarter-end**

In early October, Nanollose advised that it had received formal approval from the European Patent Office for its application titled 'Plant Growth Media and Method for Making Same' (*refer ASX Announcement 4 October 2023*). The patent covers Nanollose's original wet-gel Jelli Grow™ seed raising formulation, and marks the Company's first granted patent in Europe. As well as expanding its global IP portfolio the grant provides further validation of the Company's innovative technologies. Moreover, it provides a layer of protection from potential competitors wishing to introduce related plant growth media based on microbial cellulose.

## **Corporate Updates:**

Post quarter end, the Company entered into a \$300,000 prepayment facility, secured by its anticipated R&D Tax Incentive rebate, with interest payable at 16% per annum. Funds have been received by the Company, and are repayable out of the Company's R&D Tax Incentive rebate, and otherwise on 31 March 2024. The Company anticipates repaying the loan within 3 months.

## **Outlook:**

Following a strong quarter of operations, new product launches and commercial partnerships along with the expansion of the Company's IP footprint, Nanollose is focused on the continued execution of its product development initiatives for environmentally friendly microbial cellulose technologies. The Company's near-term priorities are outlined as follows:

- Complete third pilot spin of Nullarbor fibres with Birla Cellulose at increased production volumes and/or a higher microbial cellulose content
- Commercial launch of Biollose horticultural products, including MicroGel and Jelli Grow
- Completion of fabric production from the second pilot batch of Nullarbor fibres
- Release of a small capsule collection of garments incorporating Nullarbor fibres
- Design and produce prototypes of leather-like materials to demonstrate the technology across different applications

## **Appendix 4C Quarterly Cash Flow:**

The Company's Appendix 4C Quarterly Cash Flow Report for the quarter ended 30 September 2023 accompanies this announcement. At the end of the quarter, Nanollose had a cash balance of \$233,000.

The Company expended a gross total of \$329,000 on the operations of the Company, and receiving a total of \$3,000. Capital expenditure comprised of R&D (\$182,000), advertising and marketing (\$33,000), staff costs (\$23,000), administrative and corporate costs (\$91,000) and interest received (\$1,000), and receipts from customers (\$2,000). The payments included at section 6.1 of the attached Appendix 4C relate to Executive Directors' Salaries (\$50,000), Non-Executive Director Fees (\$19,000), and Company Secretary, Accounting and Office Fees (\$16,000).

**[ENDS]**

## **AUTHORITY AND CONTACT DETAILS**

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

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## ABOUT NANOLLOSE

Nanollose Limited (ASX: NC6) is a leading biomaterials company commercialising scalable technology to create fibres, fabrics, and other novel materials with minimal environmental impact. Nanollose's, eco-friendly fermentation process can use agricultural waste and by-products to produce cellulose, a versatile raw material traditionally produced from trees via the wood pulping process. The Company then uses this 'Tree-Free' cellulose as an input for its range of innovative biomaterials including its Nullarbor™ fibres, MicroGel™ horticultural medium, and its emerging animal-free and plastic-free leather-like materials.

Nanollose filed a joint patent application with strategic partner, Birla Cellulose, for its high tenacity, Tree-Free Nullarbor lyocell fibre in 2021. Work has now moved out of the laboratory and into Birla Cellulose's pilot production facilities in India where the Company has completed two successful production runs to date, totalling half a tonne of fibre, 350kg of Nullarbor-20™ and 150kg of Nullarbor-30™.

Quantities of this fibre have since been sent to several collaborators and been converted into yarns, fabrics, and garments for testing and evaluation, in preparation for 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")**

30 September 2023

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (3 months) \$A'000
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers	2	2
1.2 Payments for		
(a) research and development	(182)	(182)
(b) product manufacturing and operating costs	0	0
(c) advertising and marketing	(33)	(33)
(d) leased assets	0	0
(e) staff costs	(23)	(23)
(f) administration and corporate costs	(91)	(91)
1.3 Dividends received (see note 3)	0	0
1.4 Interest received	1	1
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
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(326)</b>	<b>(326)</b>

<b>2. Cash flows from investing activities</b>		
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 (3 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
<b>2.6 Net cash from / (used in) investing activities</b>	<b>0</b>	<b>0</b>

<b>3. Cash flows from financing activities</b>		
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
<b>3.10 Net cash from / (used in) financing activities</b>	<b>0</b>	<b>0</b>

<b>4. Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1 Cash and cash equivalents at beginning of period	544	544
4.2 Net cash from / (used in) operating activities (item 1.9 above)	(327)	(327)
4.3 Net cash from / (used in) investing activities (item 2.6 above)	16	16

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (3 months) \$A'000</b>
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
<b>4.6</b>	<b>Cash and cash equivalents at end of period</b>	<b>233</b>	<b>233</b>

<b>5.</b>	<b>Reconciliation of cash and cash equivalents</b> at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	<b>Current quarter \$A'000</b>	<b>Previous quarter \$A'000</b>
5.1	Bank balances	213	524
5.2	Call deposits	20	20
5.3	Bank overdrafts		
5.4	Other (provide details)		
<b>5.5</b>	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>233</b>	<b>544</b>

<b>6.</b>	<b>Payments to related parties of the entity and their associates</b>	<b>Current quarter \$A'000</b>
6.1	Aggregate amount of payments to related parties and their associates included in item 1	85
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 (\$50,000), Non-Executive Director Fees (\$19,000), Company Secretary, Accounting and Office Fees (\$16,000)	



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

<b>7. Financing facilities</b>	<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
<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>		
7.1 Loan facilities	0	0
7.2 Credit standby arrangements	0	0
7.3 Other (please specify)	0	0
7.4 <b>Total financing facilities</b>	0	0
7.5 <b>Unused financing facilities available at quarter end</b>		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.	

<b>8. Estimated cash available for future operating activities</b>	<b>\$A'000</b>
8.1 Net cash from / (used in) operating activities (item 1.9)	(327)
8.2 Cash and cash equivalents at quarter end (item 4.6)	233
8.3 Unused finance facilities available at quarter end (item 7.5)	0
8.4 Total available funding (item 8.2 + item 8.3)	233
8.5 <b>Estimated quarters of funding available (item 8.4 divided by item 8.1)</b>	0.71
<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.	
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 entered into a prepayment facility secured by its anticipated R&D Tax Incentive rebate. The facility is \$300,000 and this money has been received by the Company.	
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: 31 October 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.