QUARTERLY ACTIVITIES REPORT FOR THE PERIOD ENDING 31 MARCH 2021

Operational Highlights

- **Joint patent application filed with Grasim Industries for a high tenacity, Tree-Free lyocell fibre made from microbial cellulose**, that is finer than silk and stronger than conventional lyocell.
- Nanollose and Birla Cellulose (Grasim Industries' business unit focused on sustainable fibres) are focusing on taking this success into the **pilot production phase to produce initial multi-kilo and tonne quantities of this next generation fibre**, with the following being advanced as part of the process:
    - Definition of specifications;
    - Establishment of quality control policies and procedures;
    - Optimisation for processing of microbial cellulose.
- Nanollose and Birla Cellulose have planned to adopt a Staged Scale Up approach whereby pilot scale production of several blended fibres will be tested, with the blend percentage of Tree-Free microbial cellulose being progressively increased towards the eventual target of 100% Tree-Free fibre.
- The Staged Scale Up strategy aims to enable Nanollose to offer an expanded product range of Tree-Free fibres in various blends at varying price points, to appeal to multiple markets.
- First trials to produce blended fibres at pilot scale are expected to begin in the coming months.
- **Significant interest received from parties in relation to both 100% Tree Free lyocell and various blends**, with samples from upcoming pilot spins to be dispatched to select brands and preferred partners during scale up.
- In developing their Advanced Filtration Technology, CelluAir has completed the first scope of research comprised of three major areas of work:
    - Formulation Optimisation;
    - Consistency of Nano-Cellulose Material;
    - Initial testing of Microbial Cellulose.

Post Balance Date Events

- Oversubscribed placement to institutional and sophisticated investors raises $2.85m, at an issue price of $0.10 per Share, placing Nanollose in a strong position to further advance the development and commercialisation of its Tree-Free fibres.

Commenting on the Quarter, Nanollose Executive Chairman, Wayne Best, said: *"The March 2021 Quarter has been a transformational period for Nanollose, commencing with the filing of a joint patent with Grasim Industries in January 2021, which has driven significant progress towards pilot production."*

"Nanollose has been working diligently with Birla Cellulose, its microbial cellulose suppliers, and its contract research providers, to determine specifications, establish quality control procedures, and optimise processing, drying and purification methods prior to commencing the first pilot spin with Birla Cellulose.

As part of the Staged Scale Up to 100% Tree Free fibres, Nanollose will produce pilot production quantities of several blended fibres, which will allow the Company to offer fibres at different price points to appeal to different markets. A staged increase in the percentage of microbial cellulose in the fibre is both technically prudent and commercially advantageous, with interest in blended fibres having already been received from a number of parties.

Subsequent to Nanollose's 20% strategic investment in CelluAir, there has been continued development of the Advanced Filtration Technology, with the first scope of research completed including formulation optimisation and material selection, testing for maintained consistency of cellulose material and initial testing of Nanollose's microbial cellulose.

Nanollose remains well funded with an oversubscribed placement for $2.85m completed in April 2021, strongly positioning the Company to commercialise its Tree-Free Lyocell as its first priority."

Nanollose Limited (ASX:NC6) ("Nanollose" or the **"Company")** a leading biomaterials company commercialising scalable technology to create fibres and fabrics with minimal environmental impact, is pleased to provide shareholders and investors with an overview of its activities to accompany the Appendix 4C, for the period ending 31 March 2021 ("**Quarter**", "**Reporting Period**".)

Operational

Joint Patent Application with Grasim Industries

On 13 January 2021, Nanollose announced that it had filed a joint patent application with Grasim Industries Limited ("Grasim") for a high tenacity, Tree-Free lyocell made from microbial cellulose.

The patent application, entitled *High Tenacity Lyocell Fibres From Bacterial Cellulose and Method of Preparation Thereof*, represents a major advancement over the Company's previous viscose versions of nullarbor™ and nufolium™.

Using the lyocell process, a team of fibre experts at Grasim's Pulp and Fibre Innovation Centre produced nullarbor™ fibre that is finer than silk and significantly stronger than conventional lyocell (traditionally produced from wood pulp).

Grasim, a company belonging to global conglomerate, Aditya Birla Group, is one of the world's largest man-made cellulosic fibre producers, with the joint patent application providing third party validation of the Nanollose technology.

Nanollose's Tree-Free high tenacity lyocell

The Company is very pleased to be working alongside a world leading partner in the commercialisation of its Tree-Free fibres.

Lyocell is a form of rayon, made using a closed loop process with low demand on chemical and water usage and low waste generation, which makes it very environment-friendly, and thereby in elevated demand from clothing brands. Lyocell is widely used in textile and nonwoven applications and has become popular due to a number of desirable strength and comfort characteristics.

The combination of Nanollose's Tree-Free cellulose, along with lyocell's closed-loop production process, has the potential to make Nanollose's Tree-Free lyocell one of the most eco-friendly and sustainable fibres available.

Pilot Production of Tree-Free Fibres

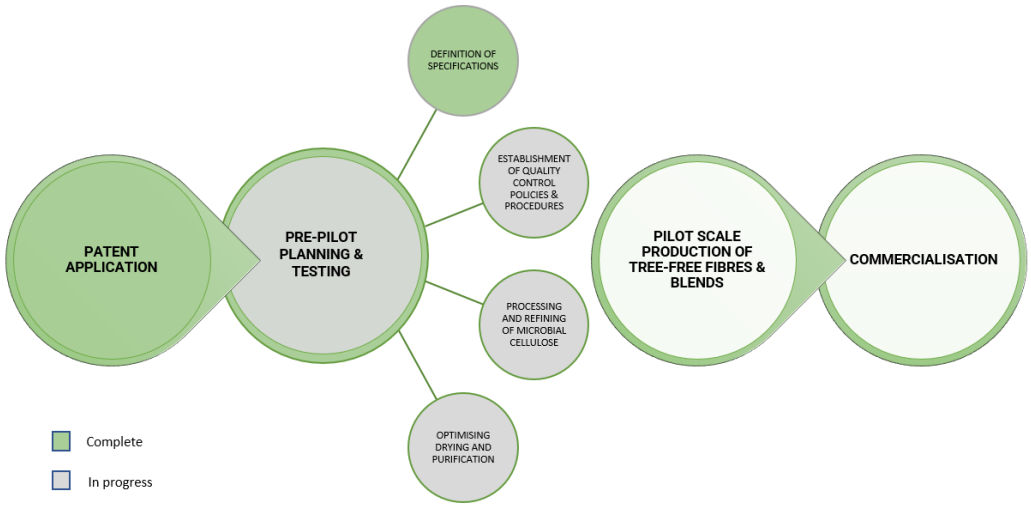
Following the success of the lyocell project coupled with the positive feedback and significant demand from brands and industry players, Nanollose and Birla Cellulose are now focused on taking this success into the pilot production phase, with the view to producing initial multi-kilo quantities of this next generation fibre, commencing in the second half of 2021.

The parties have planned to adopt a "Staged Scale Up" approach, which aims at pilot scale testing with progressively increasing blend % of Tree-Free microbial cellulose to produce quantities of several blended fibres consisting of varied percentages of Tree Free microbial cellulose, mixed with other cellulosic materials.

The production of blended fibres is a common strategy in the fibre and textile industries, and an expanded product range of blended and 100% Tree Free fibres will enable the Company to appeal to customers at different price points, thereby broadening the Company's addressable market.

This presents a significant opportunity for Nanollose, with the lyocell market predicted to be worth US$1.5 billion by 2024, growing with a CAGR of around 8%[1]. Moreover, the overall rayon market is predicted to be US$20.9 billion by 2024, growing with a CAGR of around 7.8%.[1]

The process to move from lab scale production to pilot scale production is not a trivial one, and involves the following key workstreams which are being actively progressed by Nanollose and Birla Cellulose, as described below:



Commercialisation process for Nanollose's Tree-Free Fibres

[1] https://www.gminsights.com/industry-analysis/lyocell-fiber-market

1 – Definition of Specifications

Laboratory conditions offer considerable flexibility in dealing with a range of variables, whereas commercial scale productions generally have limited flexibility, with tighter specifications for raw materials and conditions. Clearly defined and well-conceived specifications are therefore essential to ensure a more seamless scaling process.

During the Reporting Period, Nanollose has initiated work with its microbial cellulose suppliers, contract research providers, and Birla Cellulose to refine the production and processing of microbial cellulose and define product specifications, facilitating a smooth scaling process as it advances the commercialisation it's Tree-Free, high tenacity lyocell.

2 – Establishment of Quality Control Policies and Procedures

Nanollose's work during the Reporting Period in identifying these target specifications, and optimising raw materials and processes, will now be used as the basis for the introduction of internal quality control systems at Nanollose, in preparation for pilot scale production and beyond.

3 – Processing and Refining of MC

The pilot phase aims at enabling the Company to refine the processing of its microbial cellulose to generate the consistency and specifications expected for commercial fibre production.

In collaboration with Birla Cellulose, its microbial cellulose suppliers and contract research providers, the Company has applied its learnings from the laboratory scale test work, to improve the processing of its microbial cellulose with a view to production at scale.

4 – Optimising Drying and Purification

With certain specifications now identified (as detailed above), work is now underway to incorporate these specifications into the production processes. In particular, Nanollose has been exploring various options for optimising the purification and drying of microbial cellulose at scale. Microbial cellulose is well known to contain large amounts of water following its production by fermentation, and its cost-effective drying (to produce material suitable for fibre production at scale) is an important aspect of the process.

Product Trials with Leading Global Brands in the Fashion and Apparel Industry

As part of the Company's commercialisation strategy, Nanollose will undertake product trials with leading global brands in the fashion and apparel industry**.** The Company has already received significant interest from several parties in relation to both 100% Tree Free lyocell and various blended fibres. Pilot scale quantities of varying blend percentages will be dispatched to potential customers as staged scale up with increasing blend percentage of Tree-Free lyocell fibres progresses.

Strategic Investment in CelluAir and Pilot Scale Testing

In September 2020, Nanollose made a $200,000 strategic investment to acquire a 20% holding in CelluAir, an Australian company developing an Advanced Filtration Technology ("**AFT**") based on nanocellulose.

Subsequent to Nanollose's investment, the capital is being applied to scaling CelluAir's AFT using off-the-shelf commercial equipment, in addition to progressing discussions with potential sales partners and distribution channels in Australia and internationally.

CelluAir has undertaken the first scope of research comprised of three major areas of work:

1 - Formulation Optimisation

CelluAir has tested five different forms of material with the aim of achieving entirely sovereign production, with further testing now underway on two materials which have demonstrated high potential. The density of nano-cellulose material has also been explored allowing CelluAir to better understand the trade-off between filtration efficacy and back-pressure.

Experiments were conducted to mimic the effect that ageing and packaging methods might have on compression of the material and the subsequent performance. Although some compression levels modestly reduced filter performance, others did not, meaning packing and box design requires consideration. In experiments to mimic long-term wearing, the particle penetration declined modestly as the filter became clogged, although the final quality factor was similar to that for virgin melt-blown material in conventional N95 face masks.

2 - Consistency of Nano-Cellulose Material

The ability to produce consistent and repeatable materials is critical for filtration applications to maintain quality, with this variability also a challenge when using regular melt-blown materials used in traditional N95 masks.

In parallel to the laboratory test work, a rig was built to demonstrate that the material can be produced uniformly using industrial equipment.

3 - Testing of Microbial Cellulose

Nanollose MC samples were delivered to CelluAir with testing ongoing to determine its suitability for application to the AFT.

Toll Manufacturer Testing

The testing for use of toll manufacturing has been delayed, with learning from the other areas of research to be incorporated.

Lockdowns in India

Following a recent resurgence of COVID-19 infection rates in India, some Indian states have been subject to temporary lockdowns.

At present, Nanollose's work with Grasim has not been materially impacted by the recent lockdowns, with the Company continuing to liaise with Grasim's research team to plan and progress the pilot phase of the project. Whilst the Company is not immune to the risks of temporary business interruptions in India due to COVID-19 related lockdowns, some of those risks can be mitigated through the use of local and other available overseas resources, particularly in relation to critical pre-pilot spin preparatory work, which does not require Grasim's machinery or facilities. The Company continues to monitor the situation closing and adapt accordingly.

Oversubscribed Placement Raises $2.85m

Subsequent to the end of the Reporting Period, the Company completed an oversubscribed placement to institutional and sophisticated investors raising $2.85m, at an issue price of $0.10 per Share. Subscribers to the Placement are also entitled to receive 1 Option for every 2 Shares subscribed for under the Placement, with an exercise price of $0.15 each, and an expiry date of

three years from the date of issue, subject to shareholder approval to be obtained at a general meeting of shareholders, to be convened as soon as practicable.

The Placement proceeds have further strengthen the Company's balance sheet, placing Nanollose in a strong position to further advance the development and commercialisation of its Tree-Free fibres.

Disclosure pursuant to Listing Rule 4.7C

In accordance with Listing Rule 4.7C, as noted in its Appendix 4C, during the Quarter the Company expended a gross total, excluding revenue sources, of $297,000 on the operations of the Company. This was made up of research and development ($141,000), advertising and marketing ($32,000), staff costs ($17,000), and administration and corporate costs ($107,000). The Company also made payments for property plant and equipment ($1,000).

The payments included at section 6.1 of the attached Appendix 4C relate to Executive Directors' Salaries ($68,269), Non-Executive Director Fees ($26,249), and Company Secretary, Accounting and Office Fees ($22,535).

FY2021 Objectives – Commercialisation of Next Generation Lyocell

As Nanollose continues to progress towards the commercialisation of its next generation, Tree-Free fibres, there are several key milestones that the Company aims to achieve during the 2021 calendar year.

- Further optimisation of the production of processed microbial cellulose and the delivery of tonne quantities to Birla Cellulose for pilot scale production
- Advance pilot stage testing of the recently patented, next generation, Tree-Free lyocell, following the delivery of multi-kilo and tonne quantities of microbial cellulose to Birla Cellulose
- Produce and distribute the first samples of fibres and fabrics made from microbial cellulose from the pilot fibre spinning trials
- Commence product trials with leading global brands in the fashion and apparel industry
- Commence pilot product trials in the nonwoven sector, as the Company seeks to develop nufolium™ for nonwoven fibre applications, including personal wipes, which is a high growth market.

[ENDS]

AUTHORITY AND CONTACT DETAILS

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

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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 can use streams from food and agricultural industries, has the ability to produce 'Plant-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.

ABOUT BIRLA CELLULOSE AND GRASIM INDUSTRIES LIMITED

Birla Cellulose, a business unit of Grasim Industries Limited, part of Aditya Birla Group (ABG), is a leading sustainability focused man made cellulosic fibre producer, with its nature based fibres being produced from renewable wood sourced from sustainably managed forests. Grasim Industries Limited, a flagship company of the ABG, ranks amongst the top publicly listed companies in India and operates pulp and fibre business in India.

Grasim Industries operates its pulp and fibre business, which applies closed loop processes and environmentally efficient technologies, that recycle raw materials and conserve natural resources. Grasim's five global advanced research centres are equipped with state of the art facilities and pilot plants, with new generation innovative products including Livaeco™, Liva Reviva, Birla Excel (lyocell), in addition to Liva Antimicrobial and Birla Spunshades, which are designed with superior sustainable credentials.

With an aim to create bigger and broader impact, Grasim collaborates actively with its value chain partners and works closely with organizations including, Canopy Planet, Sustainable Apparel Coalition (SAC), Zero Discharge of Hazardous Chemicals (ZDHC), Changing Markets Foundation, Textile Exchange, WBSCD, Fashion for Good amongst others to continually learn and apply the best practices within its global operations and across its value chain.

Appendix 4C

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

Name of entity	
Nanollose Limited	
ABN	**Quarter ended ("current quarter")**
13 601 676 377	31 March 2021

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	0	0
1.2	Payments for		
	(a) research and development	(141)	(485)
	(b) product manufacturing and operating costs	0	0
	(c) advertising and marketing	(32)	(136)
	(d) leased assets	0	0
	(e) staff costs	(17)	(57)
	(f) administration and corporate costs	(107)	(329)
1.3	Dividends received (see note 3)	0	0
1.4	Interest received	0	2
1.5	Interest and other costs of finance paid	0	(2)
1.6	Income taxes paid	0	0
1.7	Government grants and tax incentives (R&D Rebate)	323	323
1.8	Other (Covid 19 Cash Flow Boost)	0	49
1.9	**Net cash from / (used in) operating activities**	**26**	**(635)**

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	(1)	(51)
	(d) investments	0	(200)
	(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**	**(1)**	**(251)**

3.	**Cash flows from financing activities**		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	0	660
3.2	Proceeds from issue of convertible debt securities	0	0
3.3	Proceeds from exercise of options	20	20
3.4	Transaction costs related to issues of equity securities or convertible debt securities	0	(35)
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**	**20**	**645**

4.	**Net increase / (decrease) in cash and cash equivalents for the period**		
4.1	Cash and cash equivalents at beginning of period	549	835
4.2	Net cash from / (used in) operating activities (item 1.9 above)	26	(635)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(1)	(251)

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)	20	645
4.5	Effect of movement in exchange rates on cash held		
4.6	**Cash and cash equivalents at end of period**	**594**	**594**

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	574	329
5.2	Call deposits	20	220
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)**	**594**	**549**

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	117
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 ($68,269), Non-Executive Director Fees ($26,249), Company Secretary, Accounting and Office Fees ($22,535)

7.	**Financing facilities** *Note: the term "facility' includes all forms of financing arrangements available to the entity.* *Add notes as necessary for an understanding of the sources of finance available to the entity.*	**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)	26
8.2	Cash and cash equivalents at quarter end (item 4.6)	594
8.3	Unused finance facilities available at quarter end (item 7.5)	0
8.4	Total available funding (item 8.2 + item 8.3)	620
8.5	**Estimated quarters of funding available (item 8.4 divided by item 8.1)**	N/A

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.

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: Notwithstanding the R&D Rebate which will only be received on an annual basis, yes the Company expects to have a similar level of net operational cashflows 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: Yes. In April 2021 the Company completed a placement of approx. $2.85m.

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

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.

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 April 2021
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Authorised by: The Board of Directors
.....
(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.