ASX Release

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NANOLLOSE™ PRODUCES REVOLUTIONARY PLANT-FREE VISCOSE-RAYON FIBRE

- **Significant global breakthrough for the multi-billion dollar textile and clothing industries**
- **Viscose-Rayon is made from cellulose which is extracted from trees using an environmentally challenging process**
- **Nanollose is not aware of any other eco-friendly Plant-Free Viscose-Rayon fibres available to textile and clothing manufacturers**
- **Nanollose is a first mover in offering a sustainable Plant-Free Viscose-Rayon alternative**
- **Provisional patent application has been filed to protect intellectual property of breakthrough**

Nanollose Limited (ASX:NC6) ("Nanollose" or the "Company"), is pleased to announce it has produced what it believes to be the world's first Plant-Free viscose-rayon fibre, marking a significant breakthrough for the global textile and clothing industries.

This milestone validates that the Nanollose technology can convert Plant-Free microbial cellulose into a valued commercial fibre product. This gives the Company a large opportunity in offering a sustainable alternative for plant-based fibres such as Viscose-Rayon, which are commonly used, but have significant environmental impacts.

Viscose-Rayon (also referred to as "rayon") is a well-established fibre made from cellulose predominantly derived from wood-pulp, and used to make everything from home furnishings to clothing. However, there are significant environmental concerns surrounding production as a considerable amount of trees are cut down, chipped and then treated with hazardous chemicals followed by an energy intensive purification process to source the cellulose required for rayon production.

Unlike conventional rayon, Nanollose's sustainable Plant-Free rayon fibre is derived using microbes that convert biomass waste products from the beer, wine and liquid food industries into microbial cellulose, in a process that takes less than one month and requires very little land, water or energy. The microbial cellulose is then converted into rayon fibres using the Nanollose technology which is compatible with existing industry processing and manufacturing equipment.

As brands, retailers and manufacturers increasingly seek environmentally sustainable fibre resources, numerous companies have already approached Nanollose to express their interest in the technology. The next steps will be around accelerating towards producing sufficient quantities of rayon fibre samples for these groups.

In additional to this, as an important first step to protecting the intellectual property of this fibre breakthrough, Nanollose is pleased to announce that it has filed a provisional patent. The patent relates to a method of processing microbial cellulose into viscose dope which is then turned into rayon fibres, unlocking commercial value from microbial cellulose which to date has not been achieved.

Nanollose's Managing Director, Alfie Germano, said; "Each year a huge amount of trees are cut down to produce wood-based fibres like rayon. Today's breakthrough takes Nanollose one step closer to commercialising our sustainable fibres as a very real alternative so we positively impact and reduce the cutting down of trees and use of toxic processes to create clothing and textiles. The entire industry is experiencing a green wind of change that is customer driven, with many global players are stepping up their search for sustainable, long-term fibre alternatives, and we believe we have a solution".

Nanollose's revolutionary Plant-Free viscose-rayon fibre with potential applications across global rayon markets

Nanollose Rayon Fibre vs. Traditional Rayon Fibre
According to leading market research company TechNavio, the current rayon market is valued at US$10 billion, and is expected to grow to US$16.3 billion by 2019. This growth is due to fluctuating fibre costs like that of cotton, the need to be less dependent on polyester and demand for greener cost-effective alternatives.

As demand for rayon increases so does the environmental concern around its current supply chain and methods of manufacturing. Nanollose is now in unique position to capitalise on this opportunity by working with commercial partners to provide sustainable rayon technology as an alternative fibre source.

Dynamics of the US$10 Billion Rayon Fibre Market:

	Traditional Rayon Fibre	Nanollose Rayon Fibre
Cellulose Source	Wood-pulp from trees via harsh chemical process	Waste biomass
Grow cycle	Many Years	Several weeks
Land requirements	Large	Small - Vertical Growing
Energy Use	Intensive	Low
Water Requirements	High	Low

Pathway to market:
Over the past 4-6 months interest in Nanollose's fibre technology from multiple textile, apparel and fibre manufactures has been significant, and the Company is currently accelerating development to be able to generate sufficient quantities of rayon samples for these groups.

Nanollose then aims to collaborate with global partners who can expedite the Company's development program, and provide technical support and scale for turning fibre into fabrics which will then go into making textiles and clothing.

Nanollose initially plans to tap into the established coconut industry to secure supply of Plant-Free microbial cellulose, which will then be processed into rayon and other fibres using Nanollose technologies. Nanollose is currently working with suppliers and expects initial supply to be secured in the near future.

Provisional patent lodged:
As mentioned at the beginning of the announcement, Nanollose has filed a provisional patent relating to a proprietary method of processing microbial cellulose. Using the Nanollose process under this foundational patent, the Company can transform microbial cellulose into rayon fibres, unlocking commercial value from microbial cellulose which to date has not been achieved.

While the patent lodging protocols, proofing and examination can be lengthy and the outcome uncertain, the Company believes that, if and when it is granted, its patent will protect a fundamental step in the process for the production of rayon from microbial cellulose, making it difficult for market participants to produce a Plant-Free rayon fibre without having licensed this technology from Nanollose.

As Nanollose increasingly pursues commercial opportunities of converting microbial cellulose into high value sustainable fibre products, the Company will continue solidify and expand its patent portfolio to protect these breakthroughs.

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ABOUT NANOLLOSE

Nanollose Limited (ASX: NC6) is an innovative Australian company that uses a low cost and 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 like sugar, wine and food, has the ability to produce 'Plant-Free' Cellulose. Cellulose is the hidden building block polymer most consumers know nothing about, but forms a huge part of items used in their everyday life such as clothing, paper and hygiene products.