**ASX Announcement**
1 February 2023

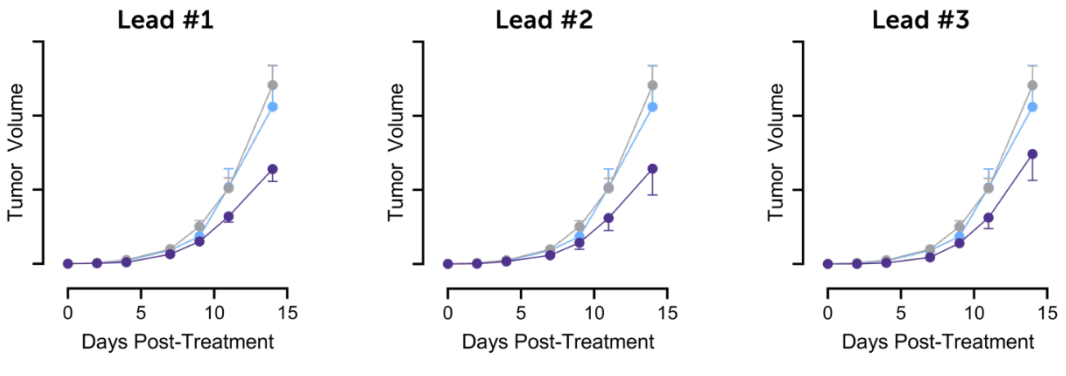
# Positive first animal data for Cancer Program

- **Positive animal efficacy data has been generated for Microba's immuno-oncology therapeutic leads**
- **A significant reduction in tumour size was observed in combination with immune checkpoint inhibitor (ICI) treatment in a mouse model of melanoma**
- **These preliminary results support further investment in Microba's immuno-oncology program, and acceleration of further pre-clinical work towards clinical development**
- **The global ICI market is valued at over $30B[1] – a novel therapeutic that increases response to these drugs represents a substantial commercial opportunity**

**Microba Life Sciences Limited** (ASX: MAP) ("Microba" or the "Company") is pleased to announce that its Immuno-oncology Program has completed its first animal studies producing positive results. This experiment was designed to assess Microba's therapeutic leads in a mouse model of melanoma, one of the most common forms of cancers with a large number of annual deaths. The results demonstrated a significant reduction in tumour volume for mice treated with an immune checkpoint inhibitor (ICI) together with Microba's therapeutic leads, when compared to control mice that received ICI therapy alone.

**Senior Vice President of Therapeutics, Prof Trent Munro** said, *"These results provide the foundations for our Immuno-oncology Program and a roadmap to clinical translation. We believe these initial animal model results are compelling and show the impact the microbiome can have in improving the response to ICI therapy, which is a backbone in modern cancer treatment. A novel microbiome-based therapeutic that can positively influence response rates for patients receiving immune checkpoint inhibitor therapy would represent a substantial commercial opportunity for Microba. We will act on these positive results with urgency to progress toward clinical testing."*

***Mouse Melanoma Cancer Model:*** Reduction in tumor volume when treated with Microba's 3 leads together with ICI therapy. No treatment (Grey), ICI treatment alone (Blue), ICI + Microba Lead treatment (Purple)




These first results support an accelerated program of work elucidating the mechanism of action and enabling a clinical study in melanoma patients. While there have been considerable advances in the treatment options for melanoma, improvement of overall response rates and survival remain meaningful areas of opportunity. Furthermore, ICIs are used in a range of cancers beyond melanoma including lung, head and neck, breast, colon, cervical, and other types of cancer. With the ICI market being valued at over US $30B with a >15% CAGR[1], a microbiome-based adjuvant therapy that increases response to these drugs has the potential to become standard of care across a range of cancers, and therefore represents a substantial commercial opportunity for Microba.

[1] https://au.finance.yahoo.com/news/immune-checkpoint-inhibitors-market-predicted-090000312.html

There is an increasing body of literature supporting a key role for the microbiome in cancer[2]. Cancer immunotherapy, and more specifically a class of drugs called immune checkpoint inhibitors (ICI) have become standard of care for a range of tumour types. Despite their impact on patients, on average 70% of patients do not respond to these drugs[3,4] leaving a large underserved patient population. Differences in the microbiomes of responders and non-responders have been observed in international studies, and treatment of the microbiome using fecal microbiome transplant has demonstrated the ability to turn ICI non-responders into responders[5,6]. This presents an important opportunity to identify the key components of the microbiome which drive that effect and develop an effective adjuvant therapy to improve ICI response.

Using the company's data-driven Therapeutic Platform, Microba has identified a number of lead microbial species that may underpin clinical ICI response. In order to assess the potential efficacy of these species, selected strains were assessed in an ICI refractive mouse melanoma model, for their ability to reduce tumour burden. The data just completed demonstrated a significant reduction in tumour size in mice treated with Microba's therapeutic leads together with ICI treatment. These preliminary animal model results support further acceleration of pre-clinical work towards clinical testing.

*This announcement has been authorised for release by the Board.*

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**About Microba Life Sciences Limited**
Microba Life Sciences is a precision microbiome company driven to improve human health. With world-leading technology for measuring the human gut microbiome, Microba is driving the discovery and development of novel therapeutics for major chronic diseases and delivering gut microbiome testing services globally to researchers, clinicians, and consumers. Through partnerships with leading organisations, Microba is powering the discovery of new relationships between the microbiome, health and disease for the development of new health solutions.

For more information visit: www.microba.com

Microba encourages all current investors to go paperless by registering their details with the designated registry service provider, Automic Group.

[2] Sepich-Poore e al. (2021). ***The microbiome and human cancer.*** DOI: 10.1126/science.abc4552.
[3] Leonardi et al. (2020). ***International Journal of Oncology***. DOI: 10.3892/ijo.2020.5088
[4] Wolchok et al. (2017). ***New England Journal of Medicine***. DOI: 10.1056/NEJMoa1709684
[5] Baruch et al. (2020). ***Science***. DOI: 10.1126/science.abb5920
[6] Davar et al. (2021). ***Science***. DOI: 10.1126/science.abf3363